2016

MEASURING INSTRUMENTS

CATALOGUE NO. 202

INSIZE

QUALITY | INNOVATION | SERVICE | VALUE

Our aims:

- Quality products made to international standards with full guarantee
- Innovation by continually striving to improve and develop new products
- Service and support to ensure you have trouble-free use of our products
- High performance products at a good price

INSIZE is our standard quality and made in Asia

INSIZE PLUS is our premium quality and mainly made in Germany, UK and Italy

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1 DATA OUTPUT AND SOFTWARE PAGE 1-5

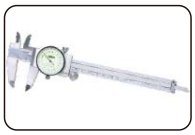
MEASURING DATA MANAGEMENT SOFTWARE

WIRELESS DATA TRANSFER SYSTEM

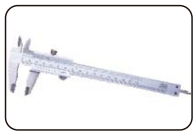
DATA OUTPUT CABLE

2 CALIPER PAGE 6-40

DIGITAL CALIPER



DIAL CALIPER



VERNIER CALIPER

LARGE RANGE CALIPER

SPECIAL PURPOSE CALIPER

3 DEPTH MEASUREMENT PAGE 41-52

DEPTH GAGE

DIAL DEPTH GAGE

DEPTH MICROMETER

4 HEIGHT MEASUREMENT PAGE 53-56

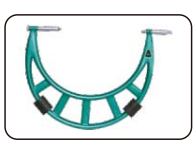
DIGITAL HEIGHT GAGE

VERNIER HEIGHT GAGE

5 MICROMETER PAGE 57-96

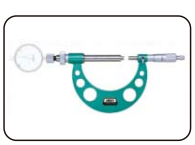
DIGITAL OUTSIDE MICROMETER

OUTSIDE MICROMETER



LARGE RANGE MICROMETER

INDICATING MICROMETER



MICROMETER WITH DIAL INDICATOR

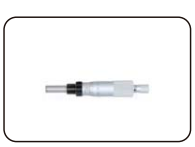
3-WIRES

SPECIAL PURPOSE MICROMETER

MICROMETER MEASURING FORCE DETECTOR

OPTICAL PARALLEL

MICROMETER STAND

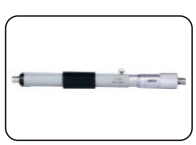


MICROMETER HEAD

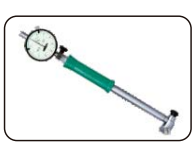
6 INTERNAL AND EXTERNAL DIAMETER MEASUREMENT PAGE 97-118

INSIDE MICROMETER

THREE POINTS INTERNAL MICROMETER



TUBULAR INSIDE MICROMETER



BORE GAGE

BORE GAGE SETTER

SETTING RING

TELESCOPING GAGE SET

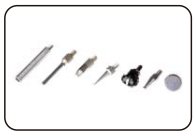
DIGITAL RADIUS GAGE

CIRCUMFERENCE TAPE

7 INDICATOR PAGE 119-151

DIGITAL INDICATOR

DIAL INDICATOR


POINTS

DIAL TEST INDICATOR

DIAL TEST INDICATOR HOLDER

MAGNETIC STAND

DIAL INDICATOR STAND

TRANSFER STAND

CONCENTRICITY GAGE

BENCH CENTER

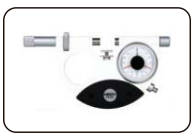
SINE BENCH CENTER

8 PAGE 152-167

INTERNAL/EXTERNAL CALIPER GAGE

DIGITAL THICKNESS GAGE

THICKNESS GAGE


DIAL SNAP GAGE

DIAL SNAP GAGE

ADJUSTABLE SNAP GAGE

DIGITAL SNAP GAGE

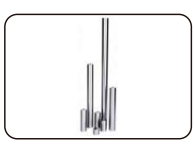
STEP AND GAP GAGE

CRANKSHAFT TESTER

9 PAGE 168-194

GAGE BLOCKS

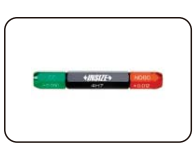
GAGE BLOCK ACCESSORY

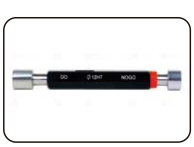

CYLINDER GAGE BLOCK

CHECK MASTER

ANGLE GAGE BLOCK

PIN GAGE

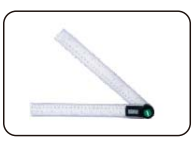

PIN GAGE HANDLE


PLAIN PLUG GAGE

THREAD PLUG GAGE

THREAD RING GAGE

10 PAGE 195-212


DIGITAL PROTRACTOR

PROTRACTOR

PROTRACTOR

UNIVERSAL PROTRACTOR

DIGITAL PROTRACTOR

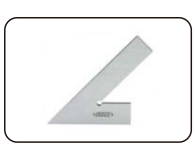
COMBINATION SQUARE SET

GRANITE SQUARE

CYLINDER SQUARE

PERPENDICULARITY TESTER

SQUARE


45° SQUARE

STRAIGHT EDGE

GRANITE STRAIGHT EDGE

PRECISION STRAIGHT EDGE

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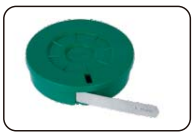
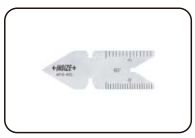
FEELER GAGE

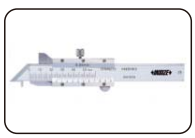

FEELER GAGE TAPE

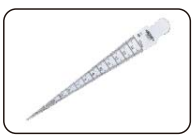
PITCH GAGE

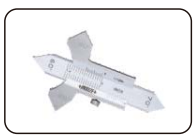

CENTER GAGE

ANGLE GAGE

RADIUS GAGE


CHAMFER GAGE


TAPER GAGE

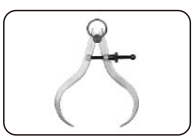

WELDING GAGE

WELDING GAGE

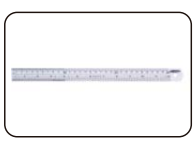
PIPE WELDING GAGE

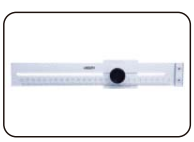
DRILL POINT GAGE

DRILL ANGLE GAGE


INSIDE/OUTSIDE CALIPER

DIVIDER

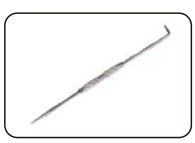

STEEL RULE


MARKING GAGE

CENTER MARKING GAGE

SCRIBING CALIPER

HEIGHT SCRIBER


SCRIBER

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GRANITE SURFACE PLATE

STAND FOR GRANITE SURFACE PLATE

JACK SET FOR GRANITE SURFACE PLATE

MAGNETIC RECTANGULAR BLOCKS

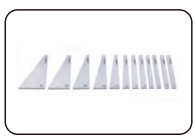
V-BLOCK SET

ROLLER BEARING V-BLOCK SET

GRANITE V-BLOCK SET

MAGNETIC V-BLOCK

PARALLEL SET


ANGLE PLATE SET

ADJUSTABLE ANGLE BLOCK

RIGHT ANGLE PLATE

SINE TABLE

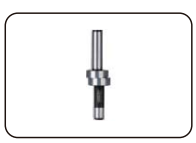
PRECISION SINE VISE

PRECISION UNIVERSAL VISE

PRECISION VISE

CENTERING INDICATOR

3D TESTER


EDGE FINDER

ZERO SETTER

13 MEASURING TOOL SET PAGE 262-268

MEASURING TOOL SET

14 SCALE PAGE 269-273

DIGITAL SCALE

LINEAR SCALE

COUNTER

15 LINEAR GAGE PAGE 274-276

LINEAR GAGE AND DISPLAY UNIT

HIGH PRECISION LINEAR GAGE AND DISPLAY UNIT

16 EXTERNAL THREAD MEASURING DEVICE PAGE 277-278

EXTERNAL THREAD MEASURING DEVICE

17 PROFILE PROJECTOR PAGE 279-286

PROFILE PROJECTOR

HORIZONTAL PROFILE PROJECTOR

18 VISION MEASURING SYSTEM PAGE 287-290

VISION MEASURING SYSTEM

VISION MEASURING SYSTEM

19 MICROSCOPE PAGE 291-303

DIGITAL MEASURING MICROSCOPE

ZOOM STEREO MICROSCOPE

METALLURGICAL MICROSCOPE

DIGITAL CAMERA

PORTABLE MEASURING MICROSCOPE

20 BORESCOPE PAGE 304-317

VIDEOSCOPE

PIPE VIDEOSCOPE

RIGID BORESCOPE

21 PAGE 318-324

COATING THICKNESS GAGE

ULTRASONIC THICKNESS GAGE

DIGITAL LED TACHOMETER/STROBOSCOPE

LASER DISTANCE METER

22 ROUGHNESS TESTER PAGE 325-340

ROUGHNESS TESTER

ROUGHNESS TESTER

SURFACE ROUGHNESS SPECIMEN

23 LEVEL PAGE 341-345

DIGITAL LEVEL

DIGITAL LEVEL AND PROTRACTOR

DIGITAL LEVEL AND PROTRACTOR

FRAME LEVEL

BLOCK LEVEL

DIGITAL LEVEL

ALUMINUM ALLOY LEVEL

25 FORCE GAGE PAGE 378-380

DIGITAL FORCE GAGE

TEST STAND

26 TORQUE TESTER TORQUE WRENCH PAGE 381-391

DIGITAL TORQUE TESTER

TORQUE WRENCH TEST STAND

DIGITAL BOTTLE CAP TORQUE TESTER

DIGITAL TORQUE SCREWDRIVER

DIGITAL TORQUE WRENCH

TORQUE WRENCH

24 HARDNESS TESTER PAGE 346-377

ROCKWELL HARDNESS TESTER

BRINELL/ROCKWELL/ VICKERS HARDNESS TESTER

BRINELL HARDNESS TESTER

MICRO-VICKERS HARDNESS TESTER

VICKERS HARDNESS TESTER

BRINELL INDENTATION MEASURING SYSTEM

VICKERS HARDNESS MEASURING SYSTEM

PORTABLE LEEB HARDNESS TESTER

ULTRASONIC HARDNESS TESTER

PORTABLE ROCKWELL HARDNESS TESTER

MAGNETIC ROCKWELL HARDNESS TESTER

HYDRAULIC BRINELL HARDNESS TESTER

PIN BRINELL HARDNESS TESTER

WEBSTER HARDNESS TESTER

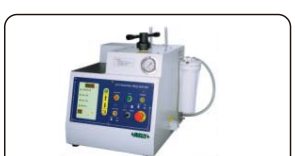
BARCOL HARDNESS TESTER

SHORE DUROMETER

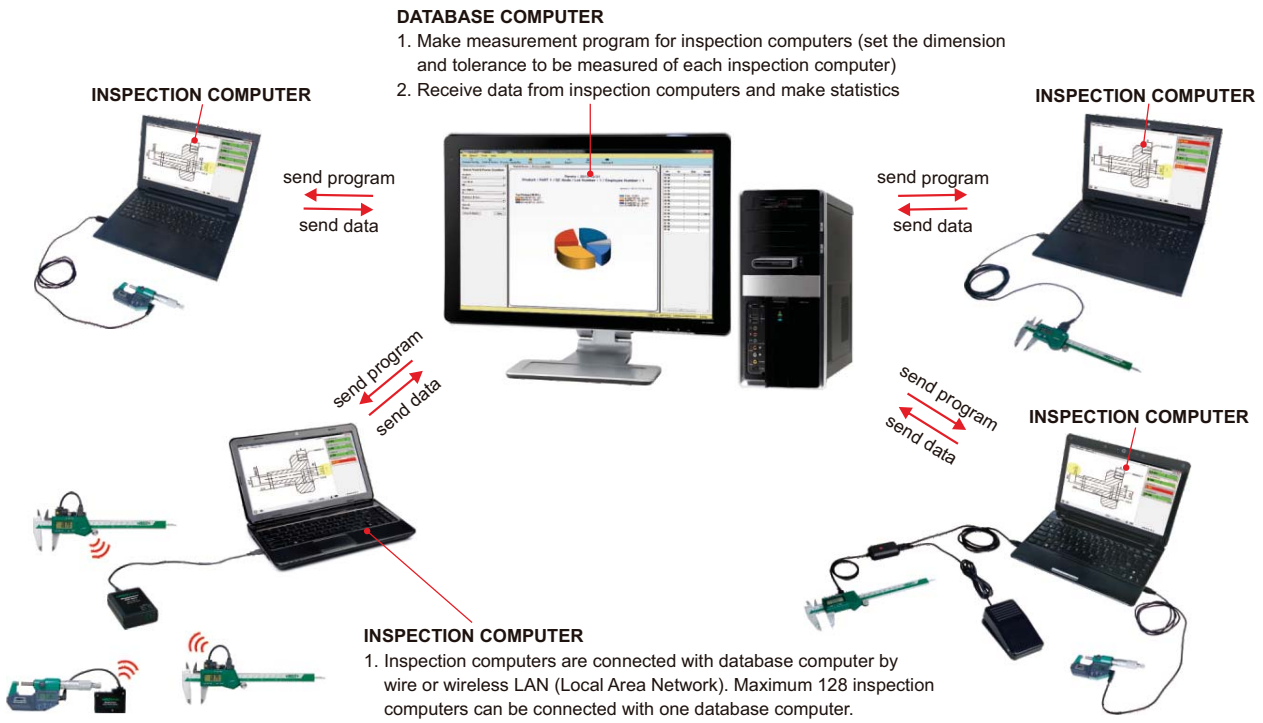
27 PAGE 392-394

PRECISION CUTTING MACHINE

GRINDER AND POLISHER

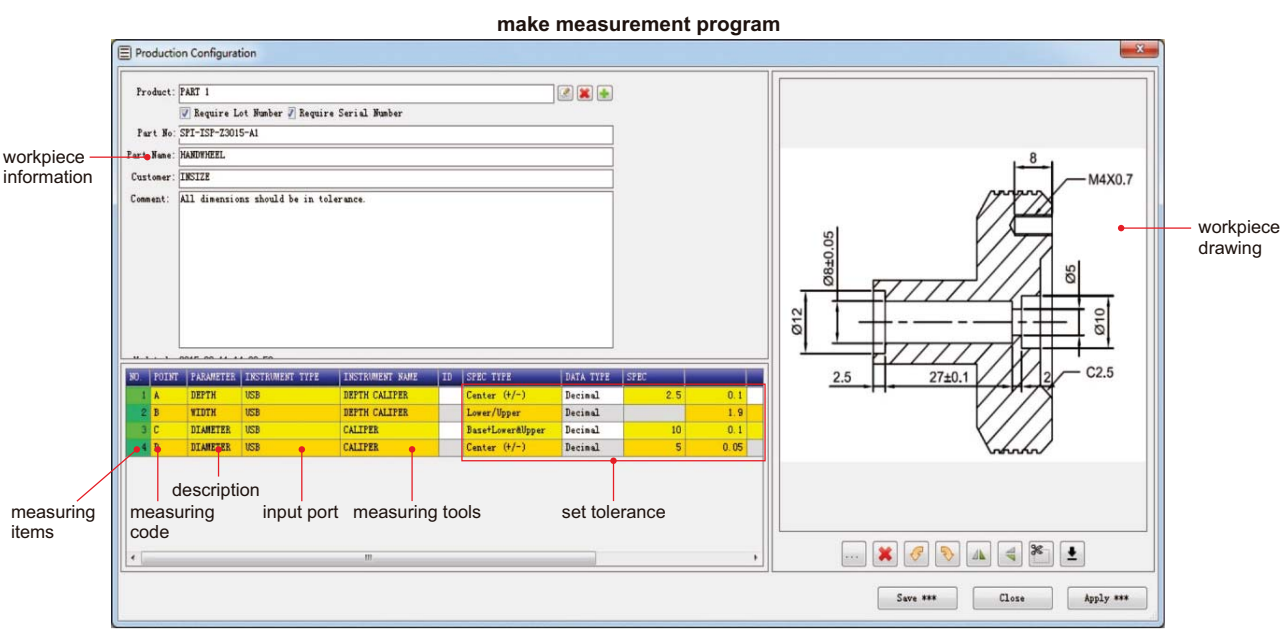

MOUNTING PRESS

MEASURING DATA MANAGEMENT SOFTWARE



SOFTWARE FOR DATABASE COMPUTER
CODE 7311-1

make measurement program

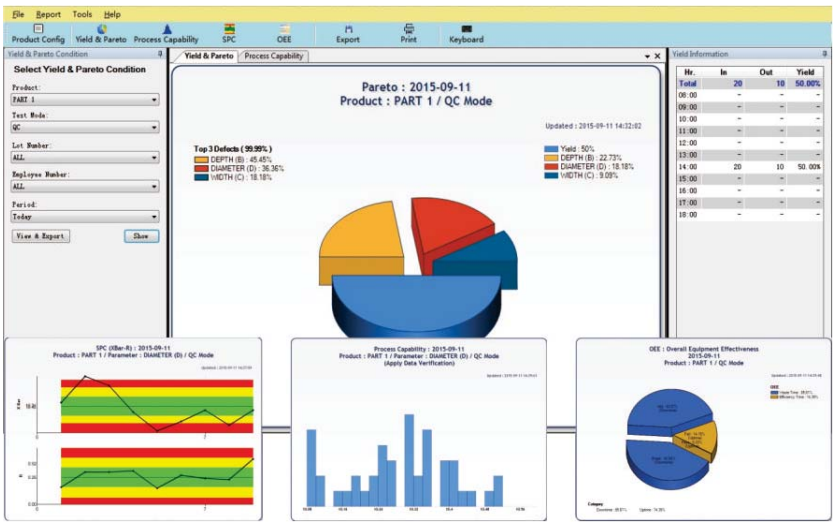


Make measurement program for each one inspection computer. Maximum 200 dimensions can be measured by one inspection computer.

To be continued

Continued from previous page

make data statistics

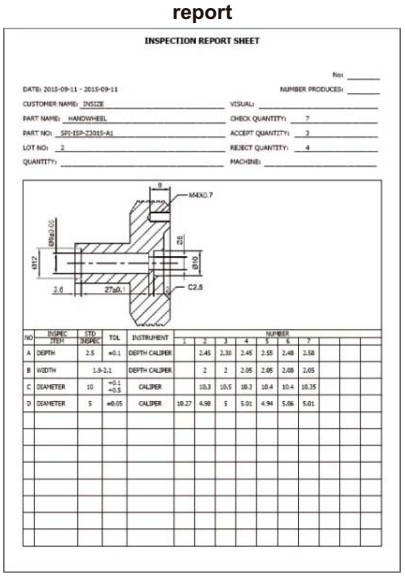


process control analysis

CPK analysis

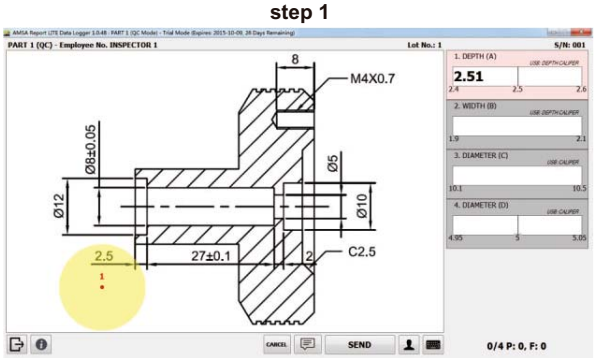
overall equipment effectiveness analysis

report



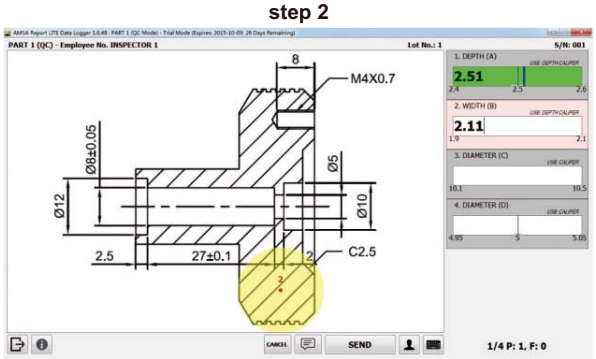
SOFTWARE FOR INSPECTION COMPUTER CODE 7311-2

step 1



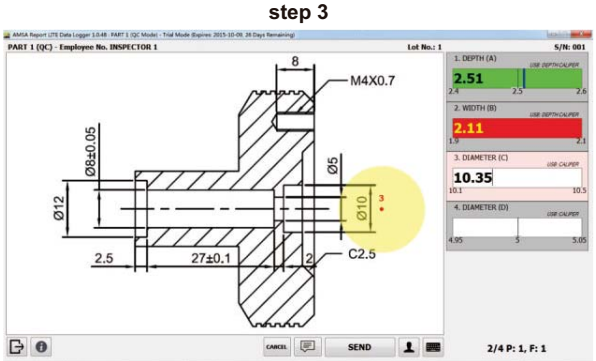
Measure the 1st dimension by following the yellow position indication.

step 2



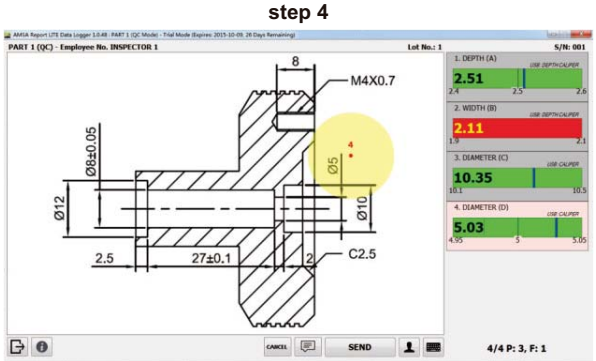
Measure the 2nd dimension by following the yellow position indication.
The 1st data will be shown in red or green according its tolerance.

step 3



Measure the 3rd dimension by following the yellow position indication.
The 2nd data will be shown in red or green according its tolerance.

step 4



Measure the 4th dimension by following the yellow position indication.
The 3rd data will be shown in red or green according its tolerance.
The data of four measurements will be sent to the database computer.

WIRELESS DATA TRANSFER SYSTEM

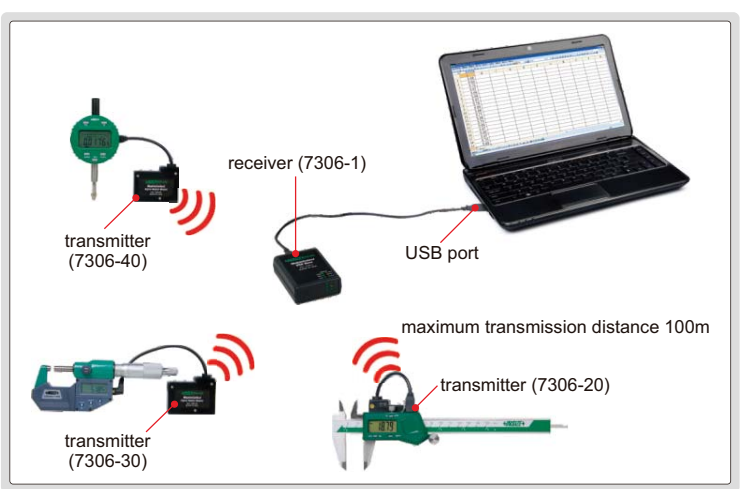
APPLICABLE FOR OTHER BRANDS

receiver
7306-1

transmitter
7306-20

Code	Description	Applicable products
7306-1	receiver (with USB cable)	
7306-20	transmitter	digital calipers and digital depth gages (not for **1103**)
7306-30	transmitter	digital micrometers (not for **3631, 3632, 3108, 3109, 3635**)
7306-40	transmitter	digital indicators digital protractors

- **CONNECTION:** one receiver can be connected to 10 transmitters.



- **DATA COLLECTION:**
  1) Single collection: press the read button once to collect the reading from measuring tool once.
  2) Multi collection: press the read button once to start collecting readings from measuring tools continuously, press the button again to stop collecting. Total collection times and interval time can be adjusted.

- **DISPLAY:** data can be input to Excel as keyboard signal.

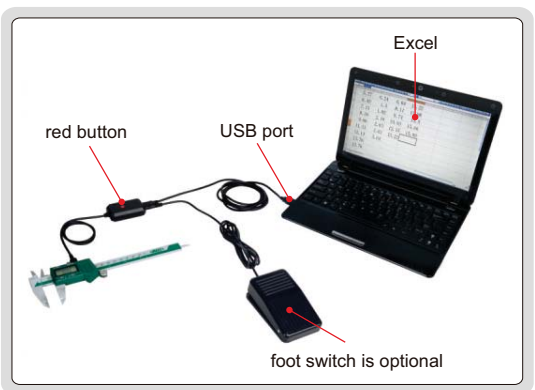
measuring tools code A, B, C

	A	B	C	D	E	F	G
1	10.88-A						
2	5.963-B						
3	50.03-C						
4	25.49-D						
5	50.05-C						
6	10.89-A						
7	25.50-D						
8	5.965-B						
9	10.87-A						
10	50.04-C						
11	25.05-D						
12	50.03-C						
13	5.963-B						
14	50.05-C						
15							
16							

All data are displayed in the same column. Each measuring tool can be coded such as A, B, C, etc.

DATA OUTPUT CABLE

- Connect to USB port of computer
- Without software, data can be input as keyboard signal to Excel, Word, etc.
- Press the red button or foot switch (optional) to input data



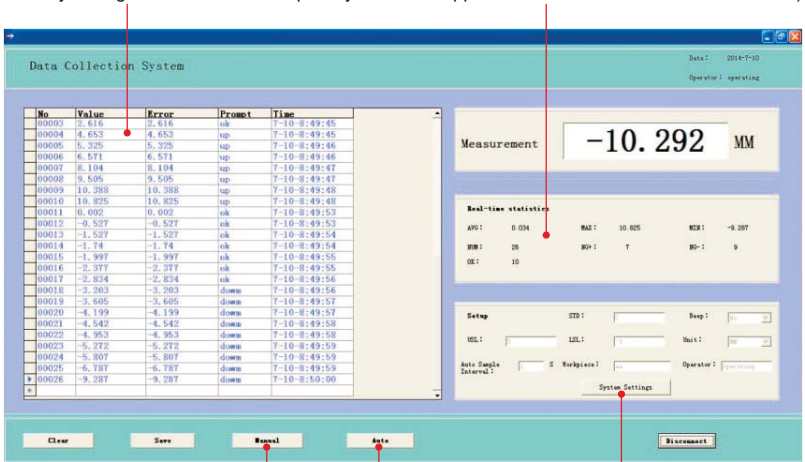
7304-2

Code	Description	Remark
7302-SPC1A	cable (length 2.5m)	for digital calipers and digital depth gages (not for **1103**)
7302-SPC1B	cable (length 2.5m)	for digital calipers and digital depth gages (not for **1103**)
7302-SPC2A	cable (length 2.5m)	for digital micrometers (not for **3631, 3632, 3108, 3109, 3635**)
7302-SPC3A	cable (length 2.5m)	for digital indicators digital protractors
7302-SPC4	cable (length 2.5m)	for digital calipers **1103** series (for **1103** only)
7304-2	foot switch with cable (length 1.5m)	optional

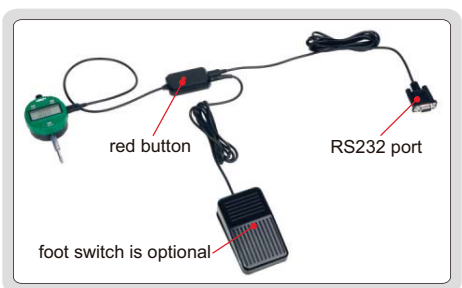
RS232 DATA OUTPUT CABLE

7305-SPC1A

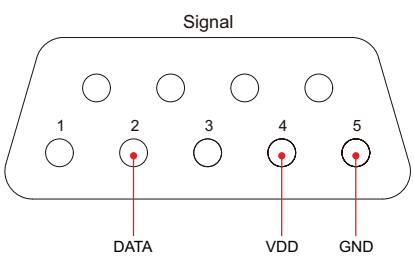
7305-SPC3



foot switch (optional)
7304-2



- Manual sampling and automatic sampling
- Press manual sampling button in software or red button on cable or foot switch once to collect the reading from measuring tool once
- Can be used in Windows Hyperterminal
- Supplied with software
- Voltage required: 5-10V
- Cable length 2.5m



Code	Applicable products
7305-SPC1A	digital indicators, digital protractors
7305-SPC2	digital calipers and digital depth gages (not for **1103**)
7305-SPC3	digital micrometers (not for **3631, 3632, 3108, 3109, 3635**)
7304-2	foot switch with cable (length 1.5m), optional

WATERPROOF DIGITAL CALIPER

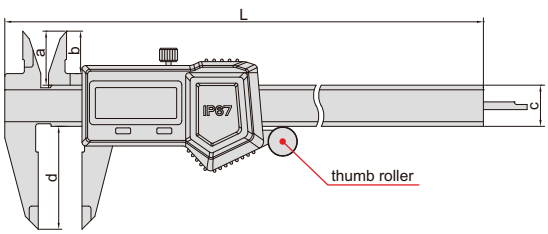
MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD

ATTENTION: IT IS NECESSARY TO SET ZERO AFTER POWER ON EACH TIME

ATTENTION: NO DATA OUTPUT

IP67 WATERPROOF

1118-150BW

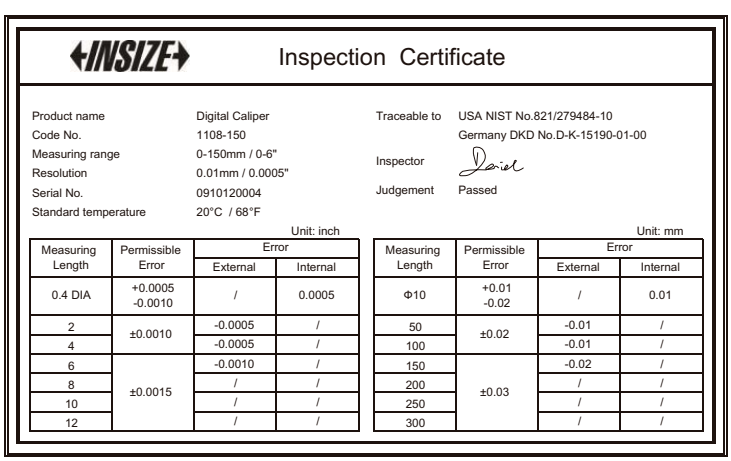


- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Button function: zero, on/off, mm/inch, ABS/REL, hold
- Battery CR2032
- Meet DIN862
- Made of stainless steel

(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1118-150BW*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1118-200BW*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1118-300BW*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60
1118-150B*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1118-200B*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1118-300B*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate traceable to DKD Germany



INSIZE Inspection Certificate

Product name	Digital Caliper	Traceable to	USA NIST No.821/279484-10
Code No.	1108-150		Germany DKD No.D-K-15190-01-00
Measuring range	0-150mm / 0-6"	Inspector	Daniel
Resolution	0.01mm / 0.0005"	Judgement	Passed
Serial No.	0910120004		
Standard temperature	20°C / 68°F		

Unit: inch

Measuring Length	Permissible Error	Error	
		External	Internal
0.4 DIA	+0.0005 -0.0010	/	0.0005
2	±0.0010	-0.0005	/
4		-0.0005	/
6	±0.0015	-0.0010	/
8		/	/
10		/	/
12		/	/

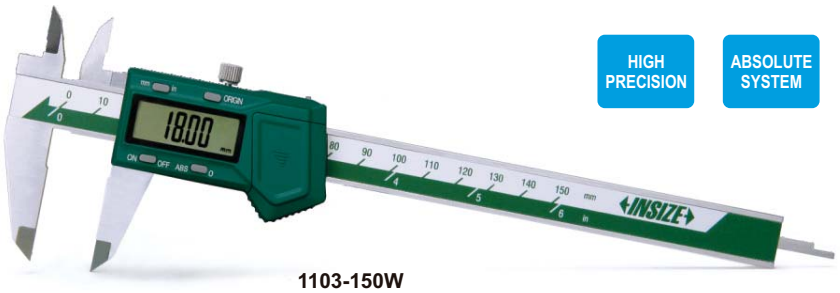
Unit: mm

Measuring Length	Permissible Error	Error	
		External	Internal
Φ10	+0.01 -0.02	/	0.01
50	±0.02	-0.01	/
100		-0.01	/
150	±0.03	-0.02	/
200		/	/
250		/	/
300		/	/

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD GERMANY, FOR CALIPERS

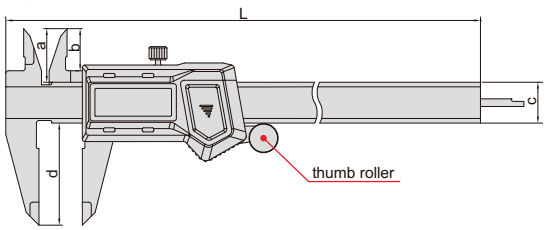
DIGITAL CALIPER

HIGH PRECISION | ABSOLUTE SYSTEM | DATA OUTPUT



1103-150W

- Absolute system
- Resolution: 0.01mm/0.0005"
- Buttons: mm/inch, ABS/REL, on/off, origin set
- Battery CR2032, automatic power off
- After automatic power off, move the digital unit to turn on power
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7302-SPC4**)



(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1103-150W*	0-150mm/0-6"	±0.02mm	without	234	21	16.5	16	40
1103-200W*	0-200mm/0-8"	±0.02mm	without	286	24	19	16	50
1103-300W*	0-300mm/0-12"	±0.03mm	without	390	26	21.5	16	60
1103-150*	0-150mm/0-6"	±0.02mm	with	234	21	16.5	16	40
1103-200*	0-200mm/0-8"	±0.02mm	with	286	24	19	16	50
1103-300*	0-300mm/0-12"	±0.03mm	with	390	26	21.5	16	60

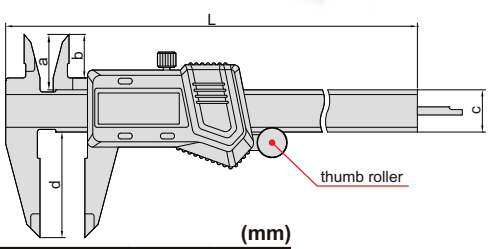
*Supplied with manufacturer inspection certificate traceable to DKD Germany

DIGITAL CALIPER

ATTENTION: NO DATA OUTPUT

1114-150AW

- Zinc alloy house for digital unit
- Resolution: 0.01mm/0.0005"
- Buttons: zero, on/off, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Meet DIN862
- Made of stainless steel



(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1114-150AW*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1114-200AW*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1114-300AW*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60
1114-150A*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1114-200A*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1114-300A*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60

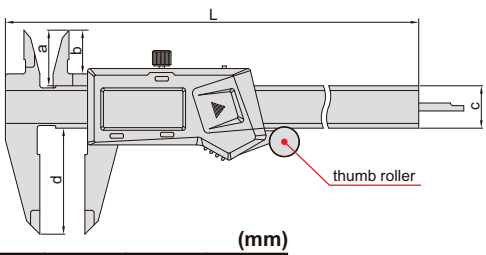
*Supplied with manufacturer inspection certificate traceable to DKD Germany

DIGITAL CALIPER

DATA OUTPUT

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

1108-150W



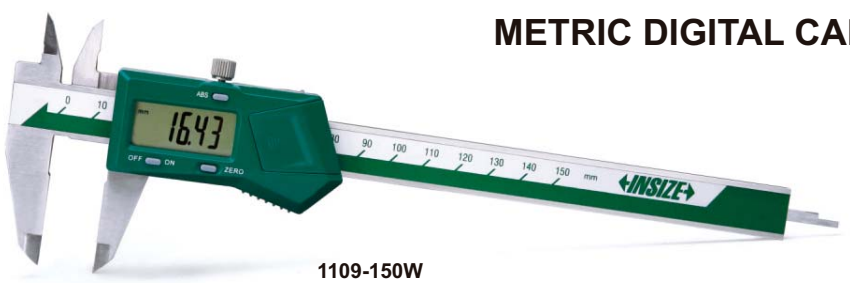
(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1108-150W*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1108-200W*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1108-300W*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60
1108-150*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1108-200*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1108-300*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate traceable to DKD Germany

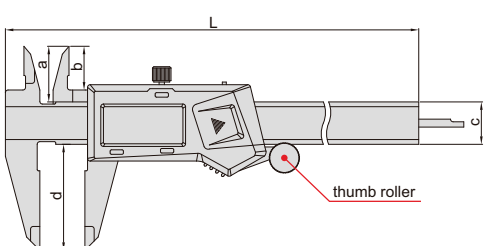
METRIC DIGITAL CALIPER

DATA OUTPUT



- Resolution: 0.01mm
- Buttons: on/off, zero, ABS
- Absolute and incremental measurement
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

1109-150W



(mm)

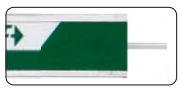
Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1109-150W*	0-150mm	±0.03mm	without	236	21	16	16	40
1109-200W*	0-200mm	±0.03mm	without	286	24	19	16	50
1109-300W*	0-300mm	±0.03mm	without	400	25	20.5	17	60
1109-150*	0-150mm	±0.03mm	with	236	21	16	16	40
1109-200*	0-200mm	±0.03mm	with	286	24	19	16	50
1109-300*	0-300mm	±0.03mm	with	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate traceable to DKD Germany

DIGITAL CALIPER WITH ROUND DEPTH BAR

DATA OUTPUT

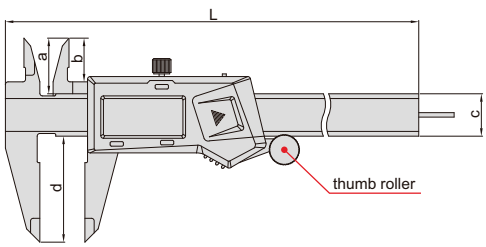
MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD



round depth bar Ø1.6mm

1119-150W

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1119-150W*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1119-150*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40

*Supplied with manufacturer inspection certificate traceable to DKD Germany

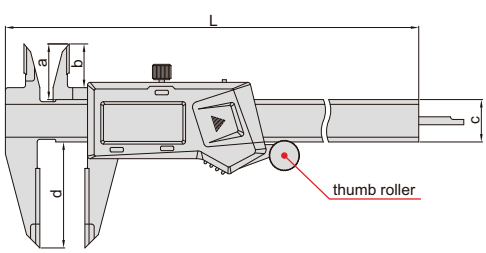
DIGITAL CALIPER WITH CARBIDE TIPPED JAWS

DATA OUTPUT

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD

1110-150AW

- Carbide tipped jaws for inside and outside measurements
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output, meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1110-150AW*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1110-200AW*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1110-300AW*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60
1110-150A*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1110-200A*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1110-300A*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate traceable to DKD Germany

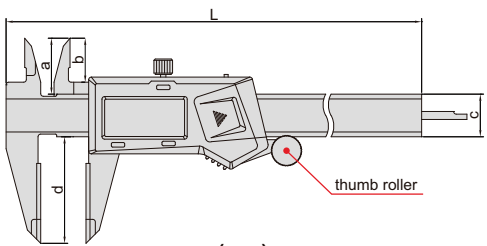
DIGITAL CALIPER WITH CERAMIC TIPPED JAWS

DATA OUTPUT

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD

1193-150W

- Ceramic tipped jaws for outside measurement, extremely wear-resistant, non-magnetic, non-conductive
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output, meet DIN862, made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1193-150W *	0-150mm/0-6"	±0.03mm	without	235	21	16.5	16	40
1193-200W *	0-200mm/0-8"	±0.03mm	without	297	24	20	16	50
1193-300W *	0-300mm/0-12"	±0.03mm	without	390	26	21.5	16	60
1193-150 *	0-150mm/0-6"	±0.03mm	with	235	21	16.5	16	40
1193-200 *	0-200mm/0-8"	±0.03mm	with	297	24	20	16	50
1193-300 *	0-300mm/0-12"	±0.03mm	with	390	26	21.5	16	60

ceramic tipped jaws

*Supplied with manufacturer inspection certificate traceable to DKD Germany

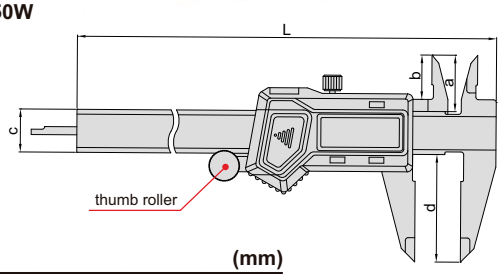
LEFT HAND DIGITAL CALIPER

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD

DATA OUTPUT

- Designed for left handers
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

1130-150W



(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1130-150W *	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1130-200W *	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1130-300W *	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60
1130-150 *	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1130-200 *	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1130-300 *	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate traceable to DKD Germany

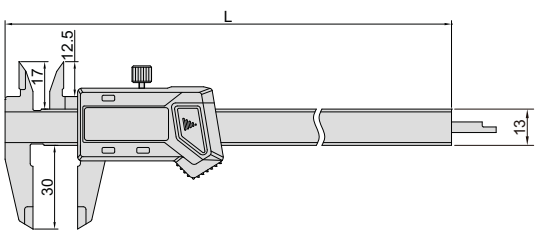
MINI DIGITAL CALIPER

ATTENTION:
NO DATA OUTPUT

1111-100A

- Resolution: 0.01mm/0.0005"
- Buttons: zero, mm/inch, on/off
- Automatic power off, move the digital unit to turn on power
- Battery LR44
- Meet DIN862
- Made of stainless steel

Unit: mm

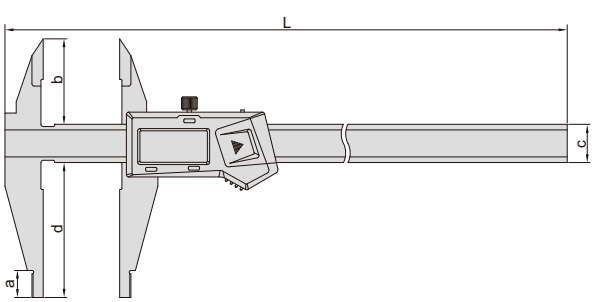


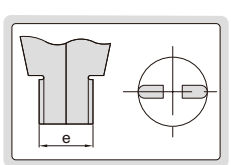
Code	Range	Accuracy	L
1111-75A	0-75mm/0-3"	±0.02mm	144mm
1111-100A	0-100mm/0-4"	±0.02mm	170mm

DIGITAL CALIPER

DATA
OUTPUT

1171-300





(mm)

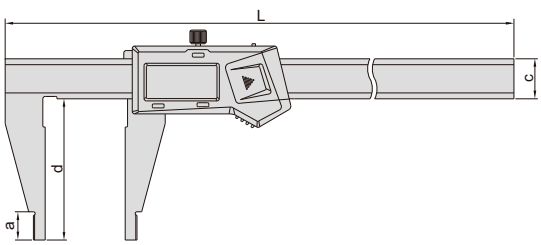
Code	Range	Accuracy	a	b	c	d	e	L
1171-200	0-200mm/0-8"	±0.03mm	12	38	17	60	10	320
1171-306	0-300mm/0-12"	±0.04mm	12	38	17	60	10	420
1171-300	0-300mm/0-12"	±0.04mm	12	38	17	90	10	420

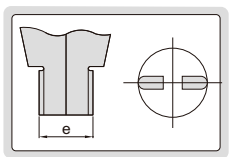
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

DATA OUTPUT

DIGITAL CALIPER

1170-300





(mm)

Code	Range	Accuracy	a	c	d	e	L
1170-200	0-200mm/0-8"	±0.03mm	12	17	60	10	320
1170-306	0-300mm/0-12"	±0.04mm	12	17	60	10	420
1170-300	0-300mm/0-12"	±0.04mm	12	17	90	10	420

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

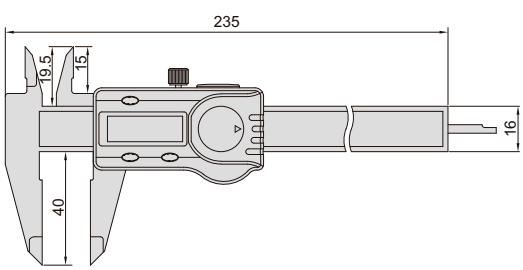
ATTENTION: NO DATA OUTPUT

PLASTIC DIGITAL CALIPER

1139-150

- Made of hard plastic, non-magnetic and non-conductive
- Prevent workpieces from scratching by calipers
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Battery CR2032, automatic power off

Unit: mm



Code	Range	Accuracy
1139-150	0-150mm/0-6"	±0.1mm

SHOCK PROOF

DIAL CALIPER

1312-150A

Dial indicator graduation: 0.02mm (mm)

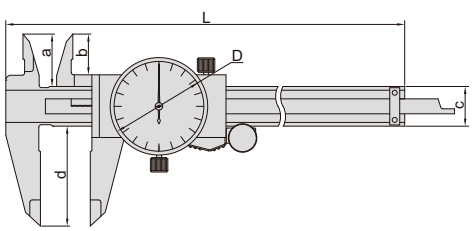
Code	Range	Accuracy	L	a	b	c	d	D
1312-150A*	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39
1312-200A*	0-200mm	±0.03mm	288	24	19	16	48	Ø39
1312-300A*	0-300mm	±0.04mm	410	28	22	20	62	Ø44.5

Dial indicator graduation: 0.01mm (mm)

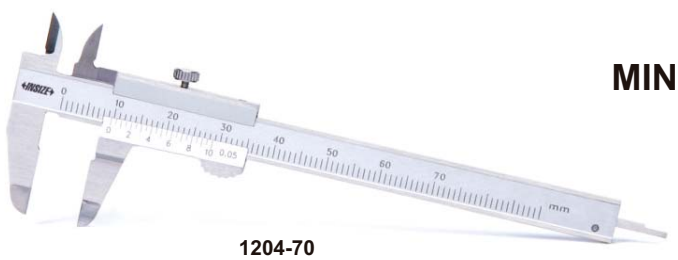
Code	Range	Accuracy	L	a	b	c	d	D
1311-150A*	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39
1311-200A*	0-200mm	±0.03mm	288	24	19	16	48	Ø39
1311-300A*	0-300mm	±0.04mm	410	28	22	20	62	Ø44.5

*Supplied with manufacturer inspection certificate traceable to DKD Germany

- Shockproof dial indicator
- Made of stainless steel



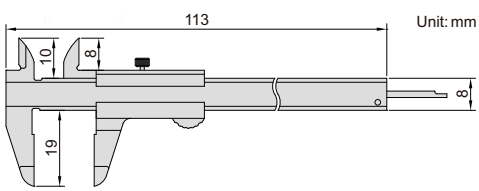
MINI VERNIER CALIPER



1204-70

- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

Code	Range	Graduation	Accuracy
1204-70	0-70mm	0.05mm	±0.05mm

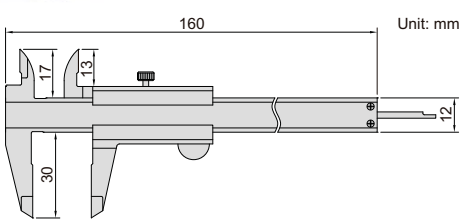


MINI VERNIER CALIPER

1203-1003

- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

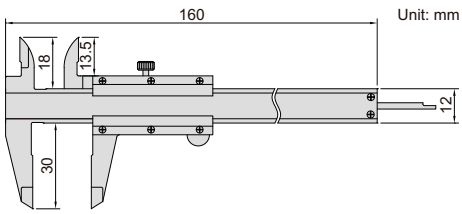
Code	Range	Graduation	Accuracy
1203-1003	0-100mm	0.05mm	±0.05mm



MINI VERNIER CALIPER

- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

1201-1003



Code	Range	Graduation	Accuracy
1201-1003	0-100mm	0.05mm	±0.05mm

VERNIER CALIPER

1205-150S

Graduation 0.05mm/1/128" **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1205-150S	0-150mm/0-6"	±0.05mm	235	20.5	15.5	16	40
1205-200S	0-200mm/0-8"	±0.05mm	290	23.5	19	16	50
1205-300S	0-300mm/0-12"	±0.05mm	414	27.5	22	20	64

Graduation 0.05mm **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1205-1503S	0-150mm	±0.05mm	235	20.5	15.5	16	40
1205-2003S	0-200mm	±0.05mm	290	23.5	19	16	50
1205-3003S	0-300mm	±0.05mm	414	27.5	22	20	64

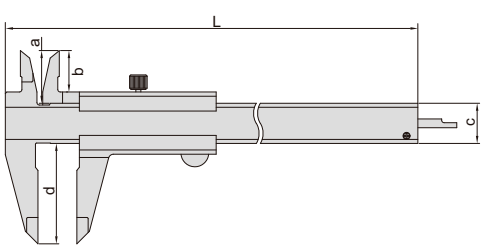
Graduation 0.02mm/0.001" **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1205-1502S	0-150mm/0-6"	±0.03mm	235	20.5	15.5	16	40
1205-2002S	0-200mm/0-8"	±0.03mm	290	23.5	19	16	50
1205-3002S	0-300mm/0-12"	±0.03mm	414	27.5	22	20	64

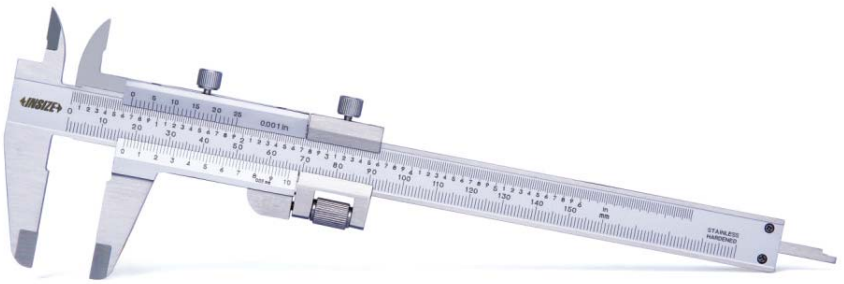
Graduation 0.02mm **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1205-1501S	0-150mm	±0.03mm	235	20.5	15.5	16	40
1205-2001S	0-200mm	±0.03mm	290	23.5	19	16	50
1205-3001S	0-300mm	±0.03mm	414	27.5	22	20	64

- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

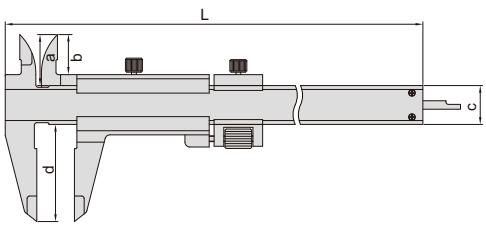


VERNIER CALIPER WITH FINE ADJUSTMENT



1233-130

- Graduation 0.02mm/0.001"
- With fine adjustment
- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

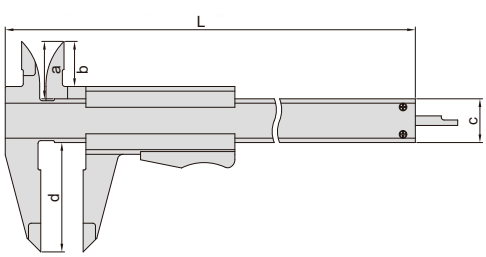


(mm)

Code	Range	Accuracy	L	a	b	c	d
1233-130	0-130mm/0-5"	±0.03mm	230	20.5	16.5	16	40
1233-180	0-180mm/0-7"	±0.03mm	295	23.5	19	16	50
1233-280	0-280mm/0-11"	±0.03mm	410	26	20	20	60

VERNIER CALIPER WITH THUMB CLAMP

1223-150



Graduation 0.05mm/1/128" **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1223-150	0-150mm/0-6"	±0.05mm	230	20.5	16.5	16	40
1223-200	0-200mm/0-8"	±0.05mm	295	23.5	19	16	50
1223-300	0-300mm/0-12"	±0.05mm	405	26	20	20	60

Graduation 0.02mm/0.001" **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1223-1502	0-150mm/0-6"	±0.03mm	230	20.5	16.5	16	40
1223-2002	0-200mm/0-8"	±0.03mm	295	23.5	19	16	50
1223-3002	0-300mm/0-12"	±0.03mm	405	26	20	20	60

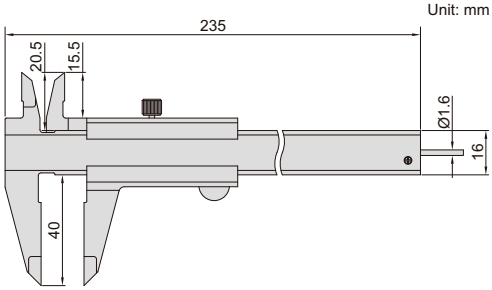
- Meet DIN862
- With thumb clamp
- Made of stainless steel
- Satin chrome plated reading surface

VERNIER CALIPER WITH ROUND DEPTH BAR

1202-150

- Graduation 0.05mm/1/128"
- Round depth bar
- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

Unit: mm



Code	Range	Accuracy
1202-150	0-150mm/0-6"	±0.05mm

VERNIER CALIPER WITH CARBIDE TIPPED JAWS

1238-150

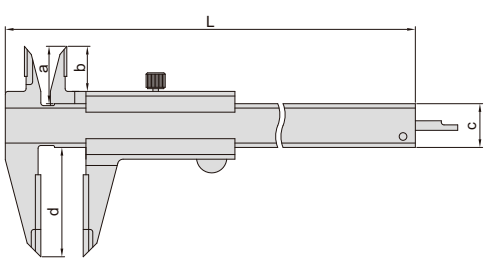
- Carbide tipped jaws for inside and outside measurements
- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

Graduation 0.05mm/1/128" **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1238-150	0-150mm/0-6"	±0.05mm	230	21	16.5	16	40
1238-200	0-200mm/0-8"	±0.05mm	295	24	19	16	50
1238-300	0-300mm/0-12"	±0.05mm	410	25	20	17	60

Graduation 0.02mm/0.001" **(mm)**

Code	Range	Accuracy	L	a	b	c	d
1238-1502	0-150mm/0-6"	±0.03mm	230	21	16.5	16	40
1238-2002	0-200mm/0-8"	±0.03mm	295	24	19	16	50
1238-3002	0-300mm/0-12"	±0.03mm	410	25	20	17	60



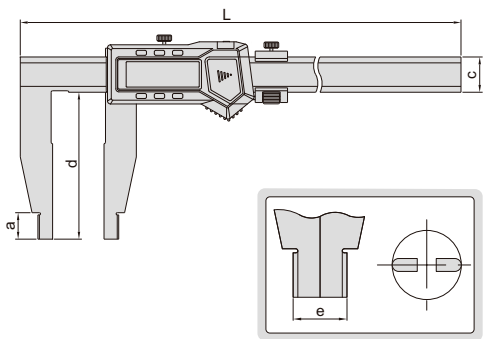
DIGITAL CALIPER

DATA OUTPUT

1106-501

(mm)

Code	Range	Accuracy	a	c	d	e	L
1106-301	0-300mm/0-12"	±0.05mm	12	24	100	20	420
1106-302	0-300mm/0-12"	±0.05mm	12	24	150	20	420
1106-451	0-450mm/0-18"	±0.05mm	18	24	100	20	625
1106-501	0-500mm/0-20"	±0.05mm	18	24	100	20	675
1106-502	0-500mm/0-20"	±0.06mm	18	24	150	20	675
1106-503	0-500mm/0-20"	±0.06mm	18	31	200	20	675
1106-505	0-500mm/0-20"	±0.08mm	18	42	300	20	675
1106-601	0-600mm/0-24"	±0.05mm	18	24	100	20	770
1106-602	0-600mm/0-24"	±0.06mm	18	24	150	20	770
1106-603	0-600mm/0-24"	±0.06mm	18	31	200	20	770
1106-802	0-800mm/0-32"	±0.07mm	24	31	150	20	1025
1106-1002	0-1000mm/0-40"	±0.08mm	24	31	150	20	1220
1106-1003	0-1000mm/0-40"	±0.08mm	24	31	200	20	1220
1106-1005	0-1000mm/0-40"	±0.10mm	24	42	300	20	1220
1106-1502	0-1500mm/0-60"	±0.11mm	24	42	150	20	1780
1106-1503	0-1500mm/0-60"	±0.12mm	24	42	200	20	1780
1106-2002	0-2000mm/0-80"	±0.14mm	24	42	150	20	2290
1106-2003	0-2000mm/0-80"	±0.14mm	24	42	200	20	2290



- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20**, **7302-SPC1A/SPC1B**, **7305-SPC2**)

DIGITAL CALIPER

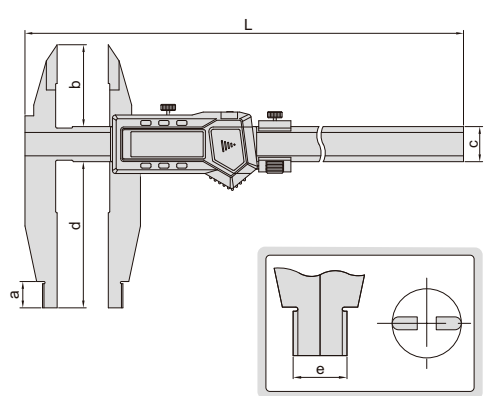
DATA OUTPUT

1117-501

- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20**, **7302-SPC1A/SPC1B**, **7305-SPC2**)

(mm)

Code	Range	Accuracy	a	b	c	d	e	L
1117-301	0-300mm/0-12"	±0.05mm	12	38	24	100	20	420
1117-501	0-500mm/0-20"	±0.05mm	18	56	24	100	20	675
1117-502	0-500mm/0-20"	±0.06mm	18	56	24	150	20	675
1117-601	0-600mm/0-24"	±0.05mm	18	56	24	100	20	770
1117-802	0-800mm/0-32"	±0.07mm	24	67	31	150	20	1025
1117-1002	0-1000mm/0-40"	±0.08mm	24	67	31	150	20	1220



DATA OUTPUT

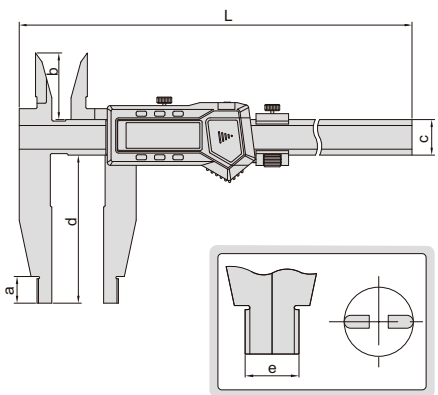
DIGITAL CALIPER

1136-501

- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable
  (code **7306-20**, **7302-SPC1A/SPC1B**, **7305-SPC2**)

(mm)

Code	Range	Accuracy	a	b	c	d	e	L
1136-301	0-300mm/0-12"	±0.05mm	12	28	24	100	20	420
1136-451	0-450mm/0-18"	±0.05mm	18	45	24	100	20	625
1136-501	0-500mm/0-20"	±0.05mm	18	45	24	100	20	675
1136-502	0-500mm/0-20"	±0.06mm	18	45	24	150	20	675
1136-503	0-500mm/0-20"	±0.06mm	18	45	31	200	20	675
1136-601	0-600mm/0-24"	±0.05mm	18	45	24	100	20	770
1136-1002	0-1000mm/0-40"	±0.08mm	24	60	31	150	20	1220
1136-1502	0-1500mm/0-60"	±0.11mm	24	60	42	150	20	1780
1136-2002	0-2000mm/0-80"	±0.14mm	24	60	42	150	20	2290



DATA OUTPUT

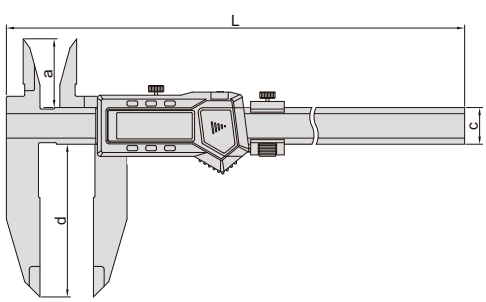
DIGITAL CALIPER

1135-601

- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable
  (code **7306-20**, **7302-SPC1A/SPC1B**, **7305-SPC2**)

(mm)

Code	Range	Accuracy	a	c	d	L
1135-451	0-450mm/0-18"	±0.05mm	45	24	100	625
1135-601	0-600mm/0-24"	±0.05mm	45	24	100	770
1135-1002	0-1000mm/0-40"	±0.08mm	60	31	150	1220



VERNIER CALIPER

1236-521

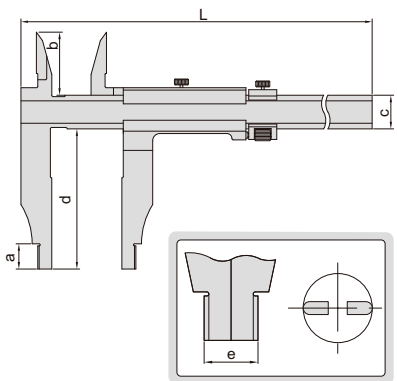
- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

Graduation 0.05mm/1/128" **(mm)**

Code	Range	Accuracy	a	b	c	d	e	L
1236-394	0-300mm/0-12"	±0.07mm	12	38	20	90	10	450
1236-514	0-500mm/0-20"	±0.07mm	18	45	24	100	20	670
1236-524	0-500mm/0-20"	±0.08mm	18	45	24	150	20	670
1236-614	0-600mm/0-24"	±0.08mm	18	45	24	100	20	770
1236-824	0-800mm/0-32"	±0.09mm	24	60	31	150	20	1030
1236-1024	0-1000mm/0-40"	±0.12mm	24	60	31	150	20	1230

Graduation 0.02mm **(mm)**

Code	Range	Accuracy	a	b	c	d	e	L
1236-511	0-500mm	±0.05mm	18	45	24	100	20	670
1236-521	0-500mm	±0.06mm	18	45	24	150	20	670
1236-1021	0-1000mm	±0.08mm	24	60	31	150	20	1230



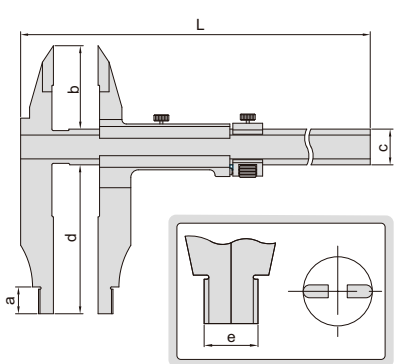
VERNIER CALIPER

1207-514

- Graduation 0.05mm/1/128"
- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

(mm)

Code	Range	Accuracy	a	b	c	d	e	L
1207-394	0-300mm/0-12"	±0.07mm	12	40	20	90	10	440
1207-514	0-500mm/0-20"	±0.07mm	18	56	24	100	20	670
1207-524	0-500mm/0-20"	±0.08mm	18	56	24	150	20	670
1207-824	0-800mm/0-32"	±0.09mm	24	67	31	150	20	930
1207-1024	0-1000mm/0-40"	±0.12mm	24	67	31	150	20	1230



VERNIER CALIPER

1208-511

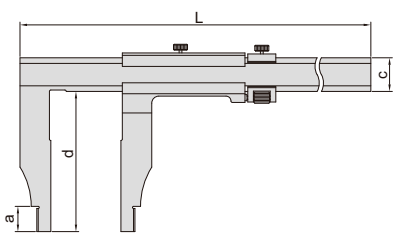
Graduation 0.05mm/1/128" (mm)

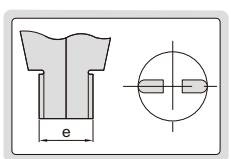
Code	Range	Accuracy	a	c	d	e	L
1208-214	0-200mm/0-8"	±0.06mm	10	20	100	10	330
1208-394	0-300mm/0-12"	±0.07mm	12	20	90	10	410
1208-324	0-300mm/0-12"	±0.07mm	18	24	150	20	410
1208-524	0-500mm/0-20"	±0.08mm	18	24	150	20	670
1208-614	0-600mm/0-24"	±0.08mm	18	24	100	20	770
1208-624	0-600mm/0-24"	±0.09mm	18	24	150	20	770
1208-824	0-800mm/0-32"	±0.09mm	24	31	150	20	1030
1208-1024	0-1000mm/0-40"	±0.12mm	24	31	150	20	1230
1208-1524	0-1500mm/0-60"	±0.16mm	24	42	150	20	1820
1208-2024	0-2000mm/0-80"	±0.20mm	24	42	150	20	2330

Graduation 0.02mm (mm)

Code	Range	Accuracy	a	c	d	e	L
1208-511	0-500mm	±0.05mm	18	24	100	20	670
1208-521	0-500mm	±0.06mm	18	24	150	20	670
1208-1021	0-1000mm	±0.08mm	24	31	150	20	1230
1208-1521	0-1500mm	±0.11mm	24	42	150	20	1820

- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface





VERNIER CALIPER

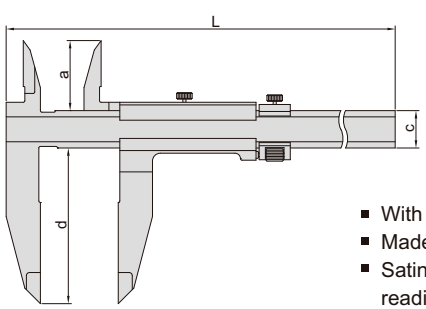
1210-611

Graduation 0.05mm/1/128" (mm)

Code	Range	Accuracy	a	c	d	L
1210-614	0-600mm/0-24"	±0.08mm	45	24	100	770
1210-1024	0-1000mm/0-40"	±0.12mm	60	31	150	1230

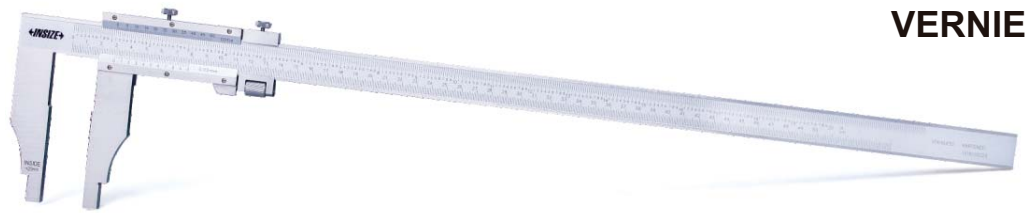
Graduation 0.02mm (mm)

Code	Range	Accuracy	a	c	d	L
1210-611	0-600mm	±0.05mm	45	24	100	770
1210-1021	0-1000mm	±0.08mm	60	31	150	1230



- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

VERNIER CALIPER



1214-500

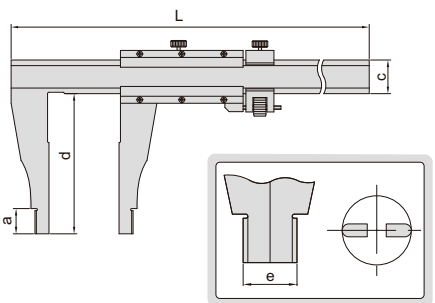
Graduation 0.02mm/0.001" **(mm)**

Code	Range	Accuracy	a	c	d	e	L
1214-300	0-300mm/0-12"	±0.05mm	10	20	75	10	410
1214-450	0-450mm/0-18"	±0.05mm	18	24	100	20	620
1214-500	0-500mm/0-20"	±0.05mm	18	24	100	20	670
1214-600	0-600mm/0-24"	±0.05mm	18	24	100	20	770
1214-1000	0-1000mm/0-40"	±0.08mm	24	32	140	20	1216
1214-1500	0-1500mm/0-60"	±0.12mm	24	42	200	20	1830
1214-2000	0-2000mm/0-80"	±0.14mm	24	42	200	20	2320

Graduation 0.05mm/1/128" **(mm)**

Code	Range	Accuracy	a	c	d	e	L
1214-6004	0-600mm/0-24"	±0.08mm	18	24	100	20	770
1214-1004	0-1000mm/0-40"	±0.12mm	24	32	140	20	1216

- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface



LONG JAW VERNIER CALIPER

1215-1032

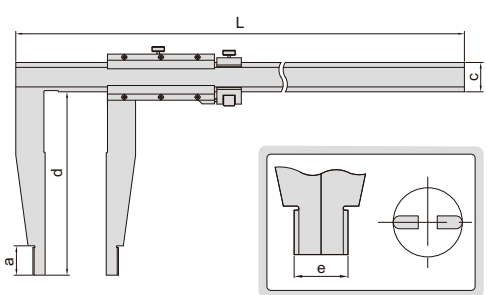
Graduation 0.02mm/0.001" **(mm)**

Code	Range	Accuracy	a	c	d	e	L
1215-392	0-300mm/0-12"	±0.05mm	10	17	90	10	410
1215-322	0-300mm/0-12"	±0.05mm	18	24	150	20	470
1215-522	0-500mm/0-20"	±0.06mm	18	24	150	20	670
1215-532	0-500mm/0-20"	±0.06mm	18	24	200	20	670
1215-622	0-600mm/0-24"	±0.06mm	18	24	150	20	770
1215-642	0-600mm/0-24"	±0.08mm	24	32	250	20	870
1215-822	0-800mm/0-32"	±0.07mm	24	32	150	20	1020
1215-832	0-800mm/0-32"	±0.07mm	24	32	200	20	1020
1215-1032	0-1000mm/0-40"	±0.08mm	24	32	200	20	1220
1215-1052	0-1000mm/0-40"	±0.11mm	24	32	300	20	1330
1215-3052	0-3000mm/0-120"	±0.26mm	24	50	300	20	3360

Graduation 0.05mm/1/128" **(mm)**

Code	Range	Accuracy	a	c	d	e	L
1215-524	0-500mm/0-20"	±0.08mm	18	24	150	20	670
1215-1034	0-1000mm/0-40"	±0.12mm	24	32	200	20	1330

- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface



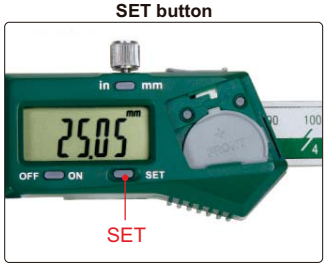
CUSTOM-MADE CALIPER

- We are able to make calipers according to the design from customers

SET BUTTON

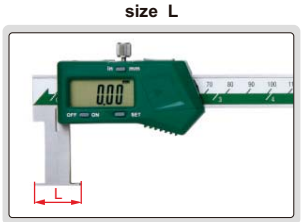
- In some calipers, there is a “ SET ” button. It is possible to set a initial reading (instead of zero) on these calipers.

SET button



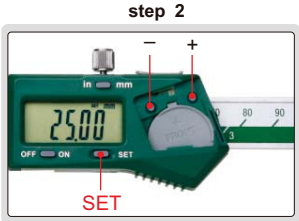
- For internal measurement, if the size L is unknown, it is necessary to set. After setting, you can get a direct reading, without adding L.
  - Step 1: Find a micrometer, set it at a number (for example, 25mm) and lock it.
  - Step 2: Press “ SET ”, “ + ” and “ - ” buttons to set 25 on caliper. After setting, the initial reading will be 25 instead of zero, when “ SET ” is pressed anytime.
  - Step 3: Put caliper into the micrometer, press “ SET ”, the reading is 25.

size L

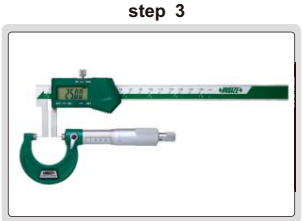


step 1

step 2

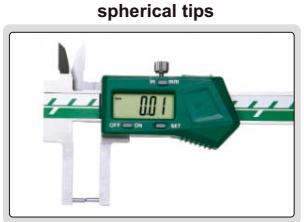


step 3

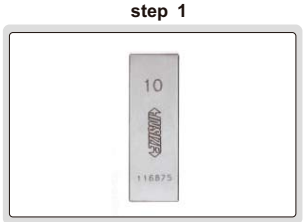


- For external measurement, if the tips are spherical, it is difficult to set zero because the two tips may not be aligned.
  - Step 1: Find a gage block (for example, 10mm).
  - Step 2: Press “ SET ”, “ + ” and “ - ” buttons to set 10mm on caliper. After setting, the initial reading will be 10mm instead of zero, when SET is pressed anytime.
  - Step 3: Hold the gage block, press “ SET ”, the reading is 10mm.

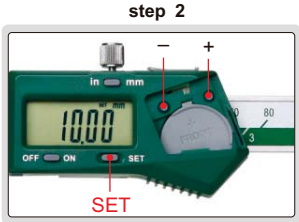
spherical tips



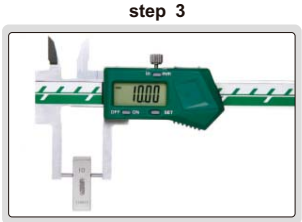
step 1



step 2



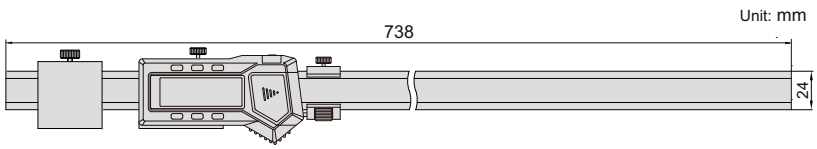
step 3



UNIVERSAL CALIPER
CODE 1125-600

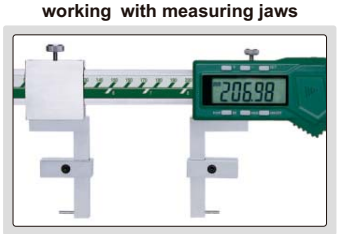
DATA OUTPUT

1125-600



working with stands

working with measuring jaws

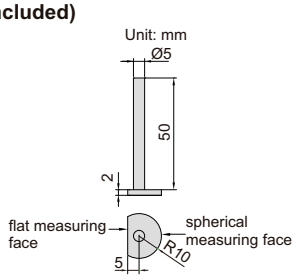


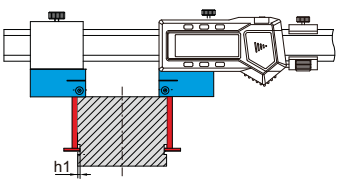
- Buttons: on/off, set, mm/inch, ABS, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20**, **7302-SPC1A/SPC1B**, **7305-SPC2**)

Code	Range*	Resolution	Accuracy
1125-600	0-600mm/0-24"	0.01mm/0.0005"	±0.05mm

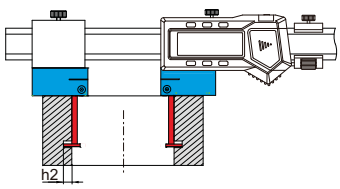
*The range changes according to different points

Half disk points (included)



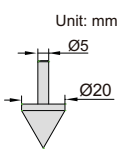


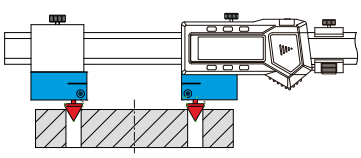
Measuring external groove diameter with flat measuring face (depth h1≤ 2.5mm)



Measuring internal groove diameter with spherical measuring face (depth h2≤ 7.5mm)

Conical points (optional)

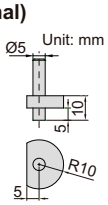


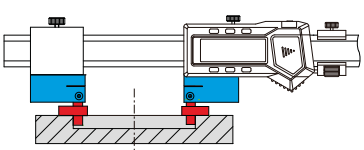


Measuring center distance

Code
1125-T101

Round shoulder points (optional)

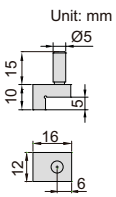


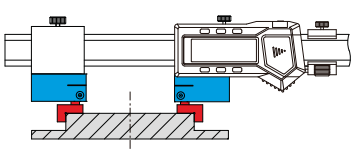


Measuring inside diameter

Code
1125-T102

Flat shoulder points (optional)





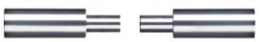
Measuring outside diameter

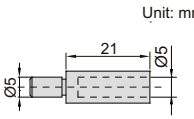
Code
1125-T103

To be continued

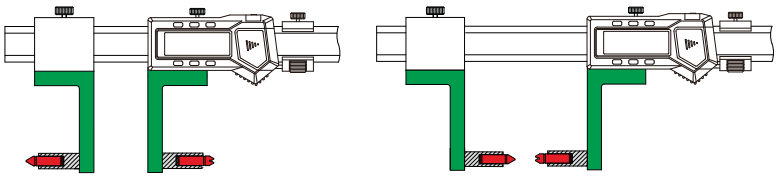
Continued from previous page

Point sleeve (optional)



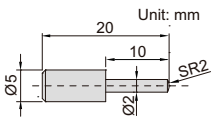


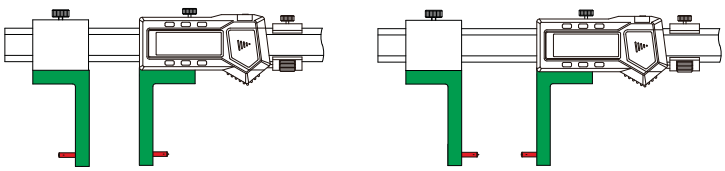
Code
1125-T104



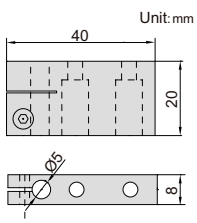
Working with multifunctional points, ball points and screw thread points

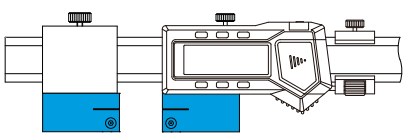
Spherical points (included)



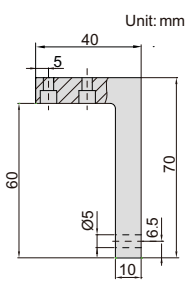


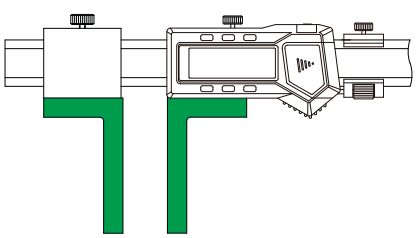
Stands (included)



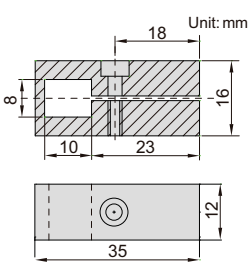


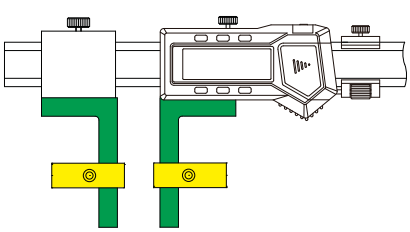
Measuring jaws (included)





Depth stop (included)





Multifunctional points 7392 (optional, page 26)

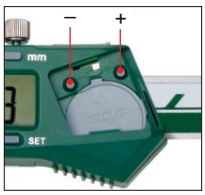
Ball points 7391 (optional, page 26))

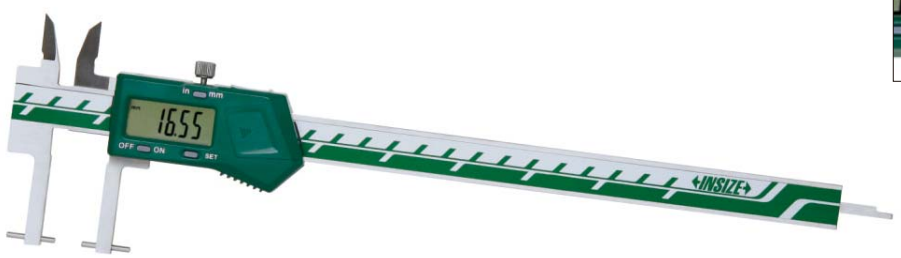
Screw thread points 7381, 7321 (optional, page 26))

DIGITAL CALIPER WITH INTERCHANGEABLE POINTS
CODE 1526-200

DATA OUTPUT

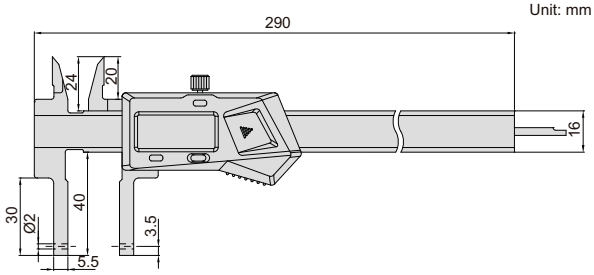
preset buttons



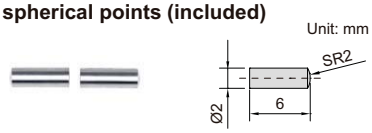


1526-200

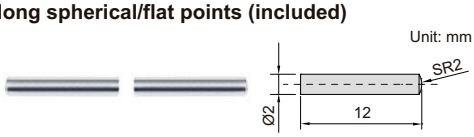
Unit: mm



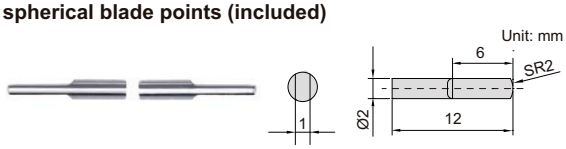
short spherical points (included)



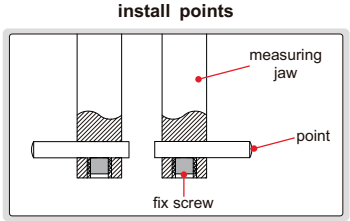
long spherical/flat points (included)



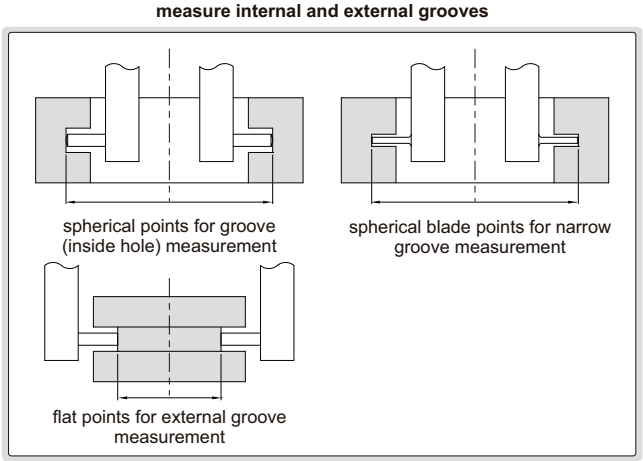
spherical blade points (included)



install points



measure internal and external grooves



- Supplied with 3 pairs of points and zero setting block for external measurement
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: points (code **1526-T101**, **7392**, **7391**, **7381**, **7321**), depth stop (code **6143**), data output cable (code **7306-20**, **7302-SPC1A/SPC1B**, **7305-SPC2**)

Point	Range	Accuracy	Application
short spherical points	12-212mm/0.5-8.5"(internal)	±0.03mm	for grooves inside small hole
long spherical/flat points	24-224mm/1-8.8"(internal) 0-187mm/0-7.5"(external)	±0.03mm	spherical points for grooves inside hole flat points for external grooves
spherical blade points	24-224mm/1-8.8"(internal) 0-187mm/0-7.5"(external)	±0.03mm	for narrow grooves inside hole

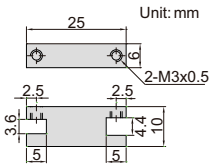
zero setting block for external measurement (included)

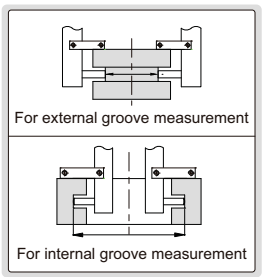
To be continued

Continued from previous page

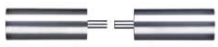
Depth stop (optional)

Code
6143

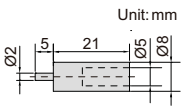




Point sleeve (optional)

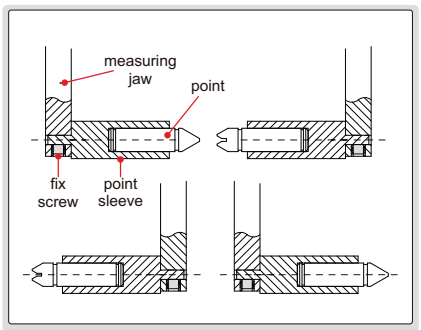


1526-T101

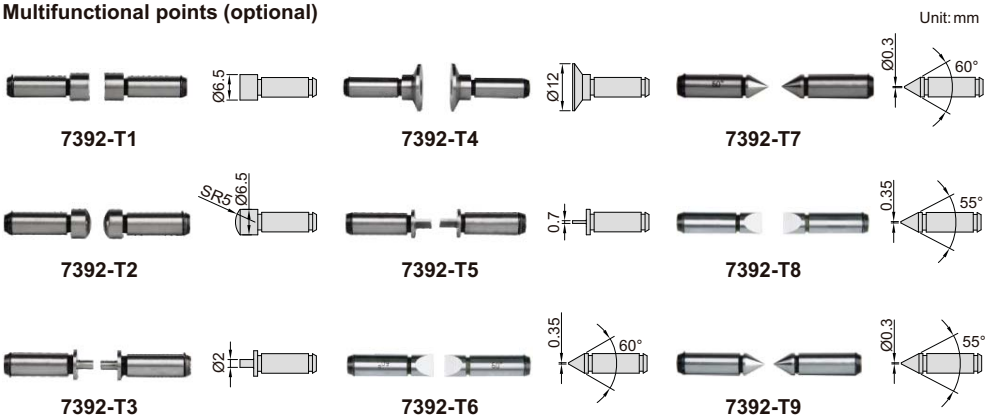


Code
1526-T101

installation



Multifunctional points (optional)

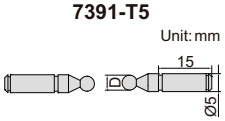


Code	Type
7392-T1	flat
7392-T2	spherical
7392-T3	spline
7392-T4	disk
7392-T5*	blade
7392-T6*	knife-edge
7392-T7	point
7392-T8*	knife-edge
7392-T9	point

*It is necessary to use point sleeve (code **1526-T101**) for these points

Ball points (optional)

7391-T5

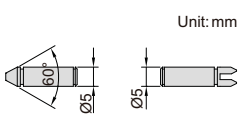


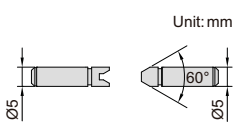
Code	Ball dia.(D)	Module
7391-T1	SØ1mm	0.6-0.65
7391-T2	SØ1.5mm	0.9-1.0
7391-T3	SØ2.0mm	1.25
7391-T4	SØ2.5mm	1.5
7391-T5	SØ3.0mm	1.75
7391-T6	SØ3.5mm	2
7391-T7	SØ4.0mm	2.25
7391-T8	SØ4.5mm	2.5
7391-T9	SØ5.0mm	2.75
7391-T10	SØ6.0mm	3.5
7391-TS	10 pairs/set, including all above points	

Screw thread points (optional)

7321-T16

7381-T11





Internal thread (60° thread angle)

Code	Pitch
7321-T11*	0.4-0.5mm/64-48TPI
7321-T12*	0.6-0.9mm/44-28TPI
7321-T13*	1-1.75mm/24-14TPI
7321-T14*	2-3mm/13-9TPI
7321-T15*	3.5-5mm/8-5TPI
7321-T16*	5.5-7mm/4.5-3.5TPI
7321-T1S*	6 pairs/set, including all above points

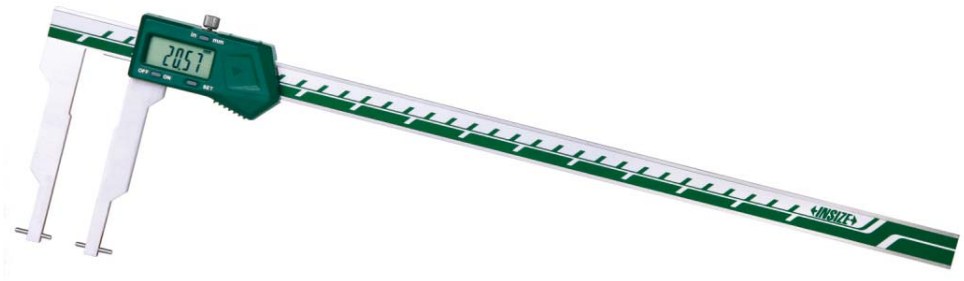
External thread (60° thread angle)

Code	Pitch
7381-T11*	0.4-0.5mm/ 64-48TPI
7381-T12*	0.6-0.9mm/ 44-28TPI
7381-T13*	1-1.75mm/ 24-14TPI
7381-T14*	2-3mm/ 13-9TPI
7381-T15*	3.5-5mm/ 8-5TPI
7381-T16*	5.5-7mm/ 4.5-3.5TPI
7381-TS*	6 pairs/set, including all above points

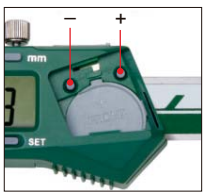
*It is necessary to use point sleeve (code **1526-T101**) for these points

DIGITAL CALIPER WITH INTERCHANGEABLE POINTS
CODE 1124-300A

DATA OUTPUT

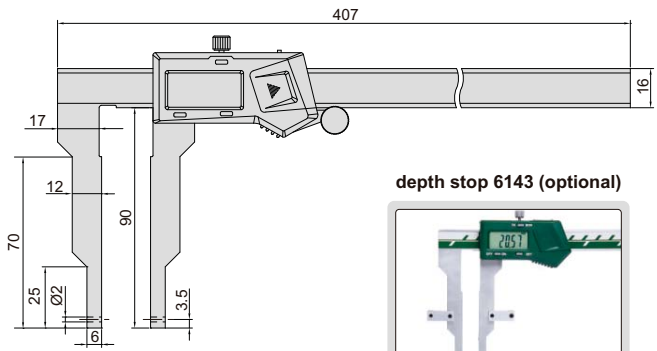


preset buttons



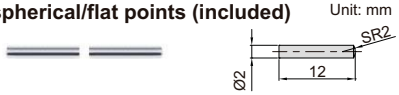
1124-300A

Unit: mm



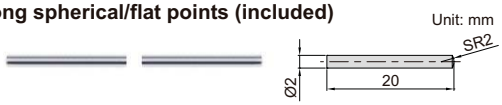
short spherical/flat points (included)

Unit: mm



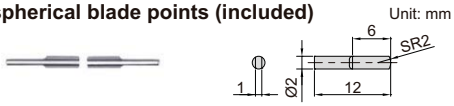
long spherical/flat points (included)

Unit: mm



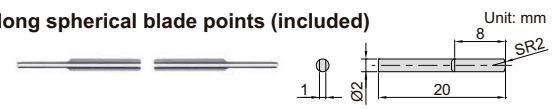
short spherical blade points (included)

Unit: mm



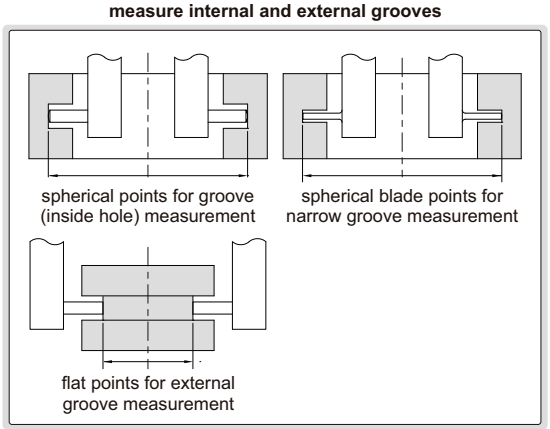
long spherical blade points (included)

Unit: mm



depth stop 6143 (optional)

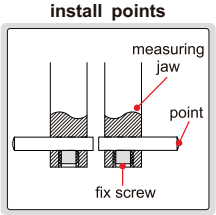
measure internal and external grooves



- Supplied with 4 pairs of points and zero setting block for external measurement
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: points (code **1526-T101**, **7392**, **7391**, **7381**, **7321**) , depth stop (code **6143**), data output cable (code **7306-20**, **7302-SPC1A/SPC1B**, **7305-SPC2**)

Point	Range	Accuracy	Application
short spherical/ flat points	24-324mm/1-12.7"(internal) 0-288mm/0-11.3"(external)	±0.04mm	spherical points for grooves inside hole (small hole) flat points for external grooves
long spherical/ flat points	40-340mm/1.5-13.3"(internal) 0-272mm/0-10.7"(external)	±0.04mm	spherical points for grooves inside hole (large hole) flat points for external grooves
short spherical blade points	24-324mm/1-12.7"(internal) 0-288mm/0-11.3"(external)	±0.04mm	for narrow grooves inside hole (small hole)
long spherical blade points	40-340mm/1.5-13.3"(internal) 0-272mm/0-10.7"(external)	±0.04mm	for narrow grooves inside hole (large hole)

install points



Multifunctional points 7392 (optional, page 26)

Ball points 7391 (optional, page 26)

Screw thread points 7381, 7321 (optional, page 26)

zero setting block for external measurement (included)

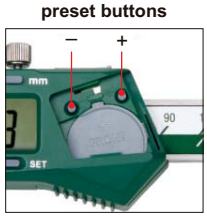
DATA OUTPUT

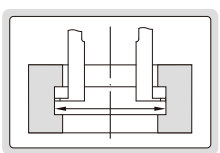
DIGITAL INSIDE GROOVE CALIPER

1120-150A

depth stop 6143 (optional)

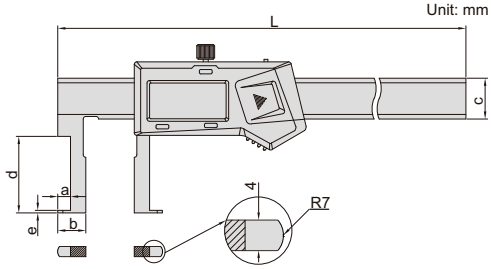
preset buttons





- Measure groove diameter
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Unit: mm



(mm)

Code	Range	Accuracy	L	a	b	c	d	e
1120-150A	22-150mm	±0.04mm	250	5	11	16	30	1
1120-200A	25-200mm	±0.04mm	310	5	12.5	16	40	1
1120-300A	30-300mm	±0.05mm	410	5	15	17	50	1.5

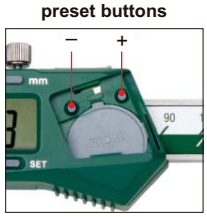
DATA OUTPUT

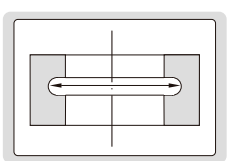
DIGITAL INSIDE POINT CALIPER

1121-150A

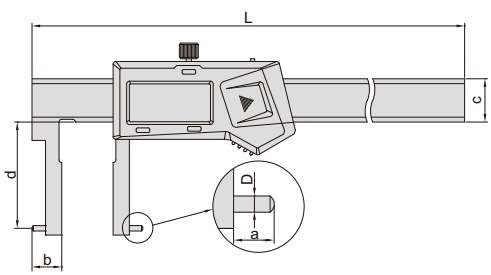
depth stop 6143 (optional)

preset buttons





- Measure groove diameter
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

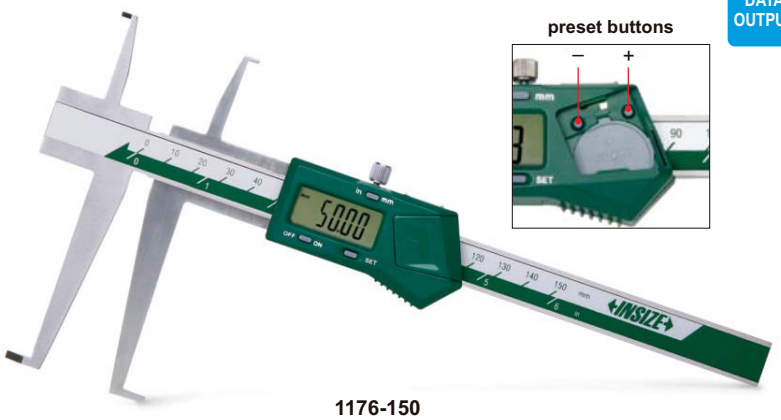


(mm)

Code	Range	Accuracy	L	a	b	c	d	D
1121-150A	24-150mm	±0.04mm	250	5	12	16	30	Ø2
1121-200A	25-200mm	±0.04mm	310	5	12.5	16	40	Ø2
1121-3001A	50-300mm	±0.06mm	410	8	25	17	80	Ø3

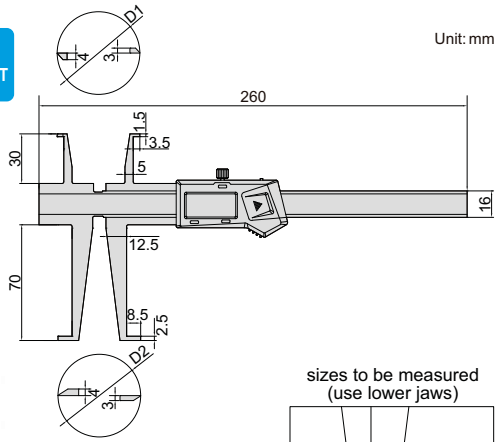
DIGITAL INSIDE GROOVE CALIPER

DATA OUTPUT



preset buttons

Unit: mm

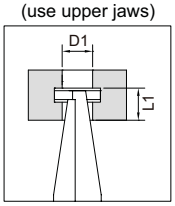


1176-150

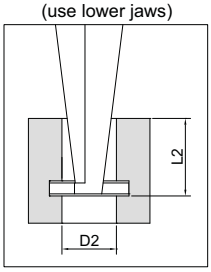
- Measure diameter of grooves inside bores
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

depth stop 6143 (optional)

sizes to be measured (use upper jaws)



sizes to be measured (use lower jaws)



Code	Range of upper jaw	Range of lower jaw	Accuracy
1176-150	9-150mm/0.35-6"	15-150mm/0.59-6"	±0.04mm

(mm)

D1	L1
Ø9	<8
Ø10	<15
Ø11~150	<30

(mm)

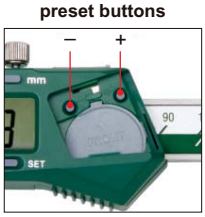
D2	L2	D2	L2
Ø15	<10	Ø19	<42
Ø16	<18	Ø20	<50
Ø17	<26	Ø21	<58
Ø18	<34	Ø22~150	<70

DIGITAL INSIDE GROOVE CALIPER

DATA OUTPUT

depth stop 6143 (optional)

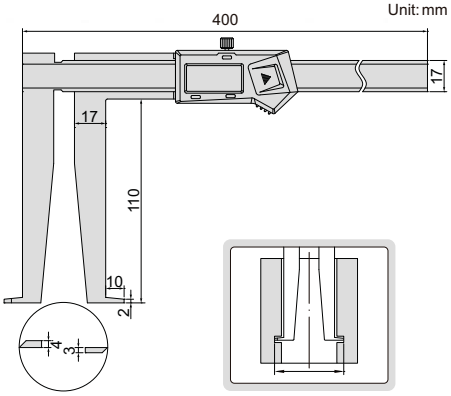
preset buttons



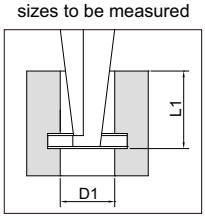
1178-300

- Measure diameter of grooves inside bores
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Unit: mm



sizes to be measured



Code	Range	Accuracy
1178-300	25-300mm/1.18-12"	±0.05mm

(mm)

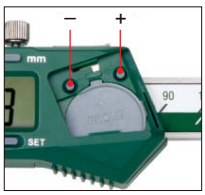
D1	L1
Ø25	<50
Ø26	<60
Ø27~300	<110

DATA OUTPUT

DIGITAL INSIDE GROOVE CALIPER

1520-150

preset buttons

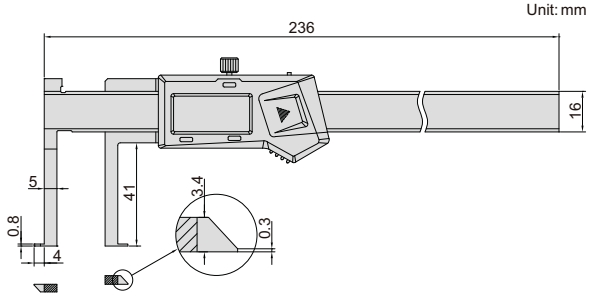


depth stop 6143 (optional)

- Measure diameter of grooves inside small bores
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Range	Accuracy
1520-150	11-150mm/0.43-6"	±0.04mm

Unit: mm

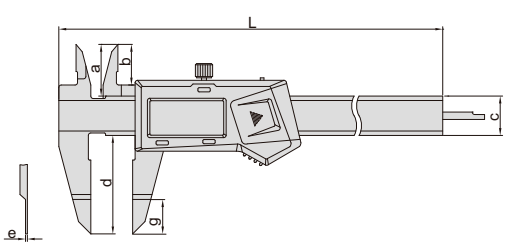


DATA OUTPUT

DIGITAL BLADE CALIPER

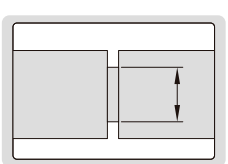
1188-150A

- The blade jaws fit into small grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



(mm)

Code	Range	Accuracy	L	a	b	c	d	e	g
1188-150A	0-150mm/0-6"	±0.03mm	235	21	16.5	16	40	0.75	17
1188-200A	0-200mm/0-8"	±0.03mm	297	24	20	16	50	0.75	17
1188-300A	0-300mm/0-12"	±0.04mm	390	26	21.5	16	60	1.00	17



DIGITAL OUTSIDE NECK CALIPER

DATA OUTPUT

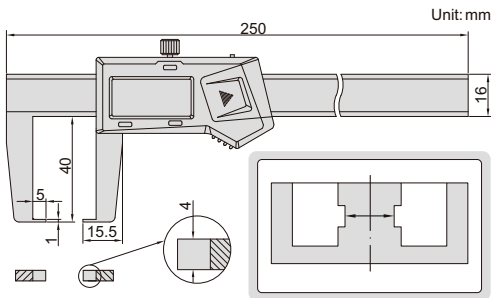
- Measure grooves and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Range	Accuracy
1187-150A	0-150mm/0-6"	±0.04mm

1187-150A

depth stop 6143 (optional)

Unit: mm



DIGITAL OUTSIDE POINT CALIPER

DATA OUTPUT

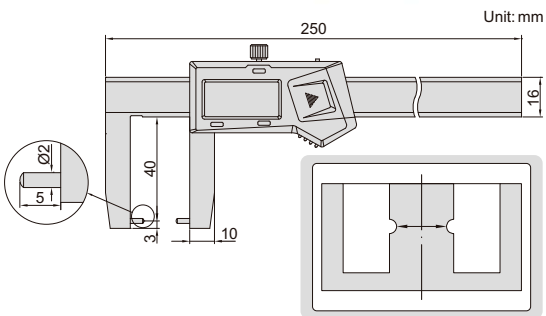
- Measure wall thickness inside bores and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Range	Accuracy
1185-150A	0-150mm/0-6"	±0.04mm

1185-150A

depth stop 6143 (optional)

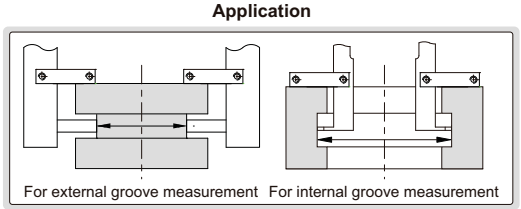
Unit: mm



DEPTH STOP FOR CALIPERS

- Supplied in pair
- Made of stainless steel
- Suitable for caliper series **1124, 1526, 1520, 1176, 1178, 1120, 1121, 1187** and **1185**

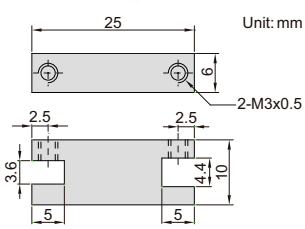
Application



Code
6143

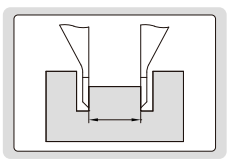
6143

Unit: mm



DATA OUTPUT

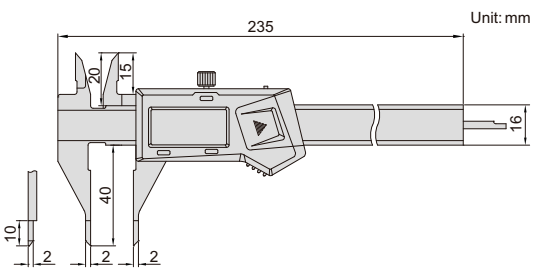
DIGITAL SMALL POINT CALIPER



1169-150

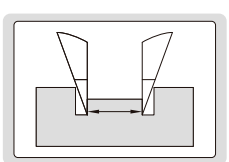
- Small pointed jaws fit into small grooves and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable
  (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Range	Accuracy
1169-150	0-150mm/0-6"	±0.03mm



DATA OUTPUT

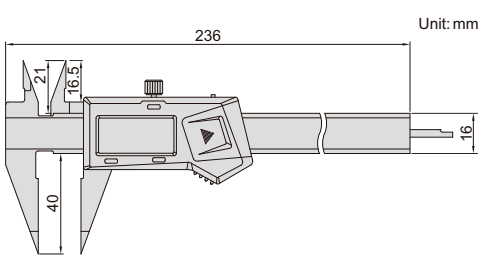
DIGITAL POINT CALIPER



1183-150A

- Pointed jaws fit into small grooves and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable
  (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

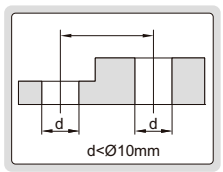
Code	Range	Accuracy
1183-150A	0-150mm/0-6"	±0.03mm



DIGITAL OFFSET CENTERLINE CALIPER

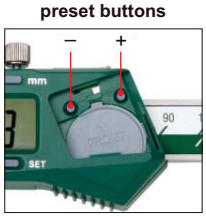
DATA OUTPUT

1192-150A

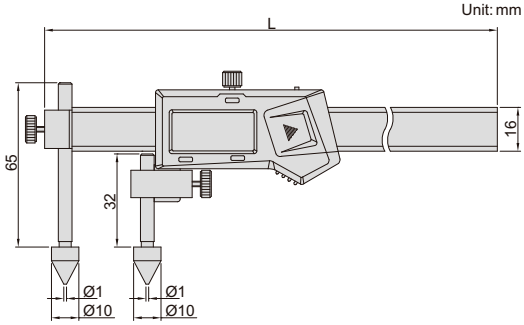


- Measure hole center distance in the same or offset planes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

preset buttons



Unit: mm



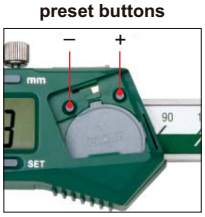
(mm)

Code	Range	Accuracy	L
1192-150A	10-150mm	±0.05mm	236
1192-200A	10-200mm	±0.07mm	286
1192-300A	10-300mm	±0.09mm	396

DIGITAL BACK-JAW CENTERLINE CALIPER

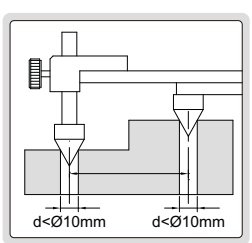
back-jaw

preset buttons



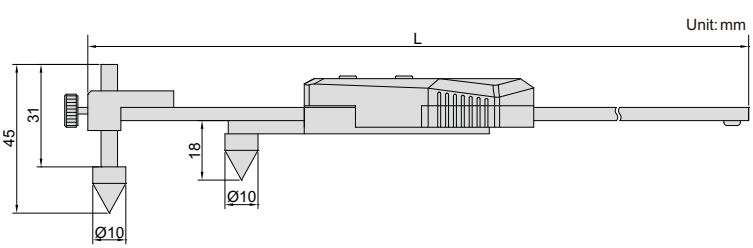
DATA OUTPUT

1177-200



- Measure hole center distance in the same or offset planes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Unit: mm



(mm)

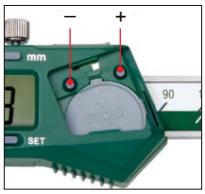
Code	Range	Accuracy	L
1177-200	10-200mm/0.4-8"	±0.1mm	310
1177-300	10-300mm/0.4-12"	±0.1mm	410

DATA OUTPUT

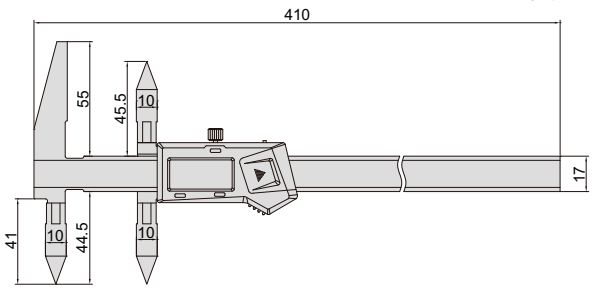
DIGITAL CENTERLINE/EDGE TO CENTER CALIPER

1525-300

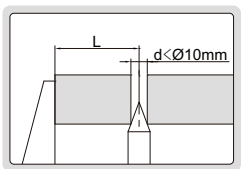
preset buttons



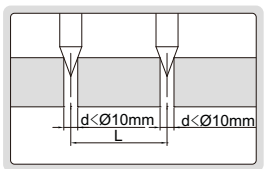
Unit: mm



measure edge to hole center distance



measure hole center distance



Code	Range of upper jaw (edge to center)	Range of lower jaw (center to center)	Accuracy
1525-300	5-300mm/0.2-12"	10-300mm/0.4-12"	±0.08mm

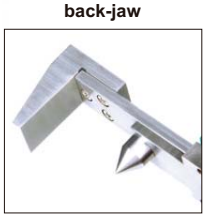
- Measure hole center distance or edge to hole center distance
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

DATA OUTPUT

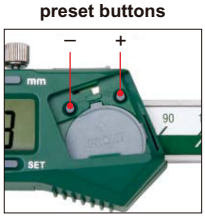
DIGITAL BACK-JAW EDGE TO CENTER CALIPER

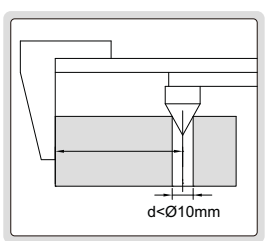
1524-200

back-jaw



preset buttons



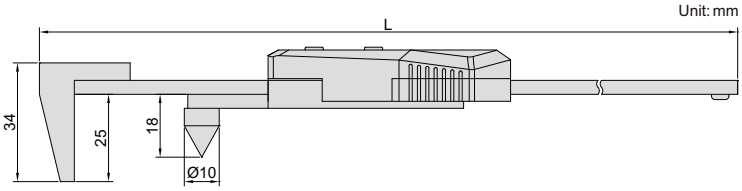


- Measure edge to hole center distance
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

(mm)

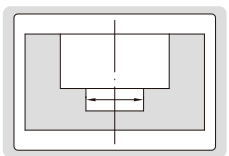
Code	Range	Accuracy	L
1524-200	5-200mm/0.2-8"	±0.1	310
1524-300	5-300mm/0.2-12"	±0.1	410

Unit: mm



DIGITAL INSIDE KNIFE-EDGE CALIPER

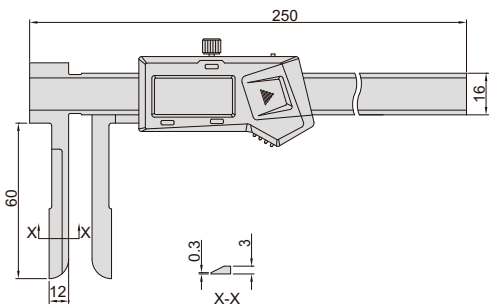
DATA OUTPUT



1123-150A

- Measure diameter of deep step holes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable
  (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Unit: mm



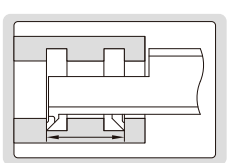
Code	Range	Accuracy
1123-150A	15-150mm/0.6-6"	±0.05mm

DIGITAL HOOK CALIPER

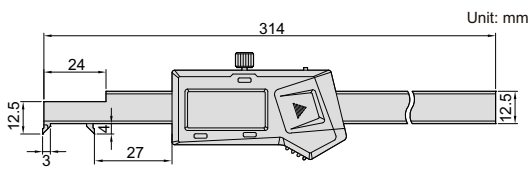
DATA OUTPUT

1122-200A

- Measure width of groove inside bores
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable
  (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



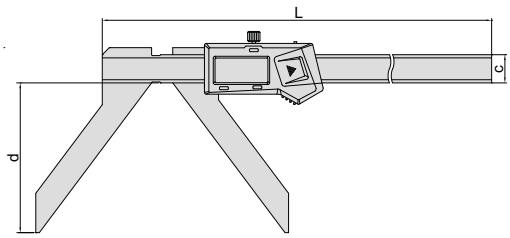
Unit: mm

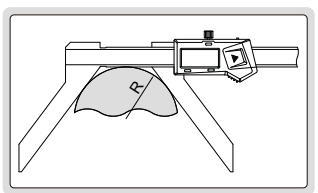


Code	Range	Accuracy
1122-200A	3-200mm/0.12-8"	±0.03mm

DIGITAL ARC RADIUS CALIPER

DATA OUTPUT





1189-150B

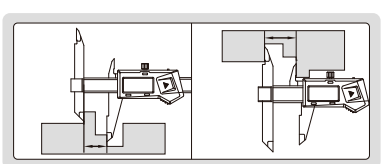
- Measure the radius of arc less than half round
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

(mm)

Code	Range (R)	Accuracy	L	c	d
1189-150B	5-150mm/0.2-6"	±0.05mm	263	16	65
1189-200B	5-200mm/0.2-8"	±0.07mm	313	16	85

DIGITAL OFFSET CALIPER

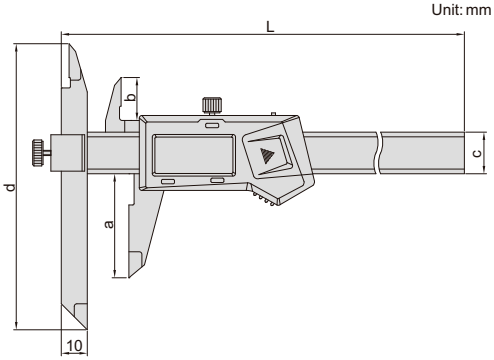
DATA OUTPUT



1186-150A

- The left jaw can slide up and down to facilitate measurement of stepped sections
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Unit: mm



(mm)

Code	Range	Accuracy	L	a	b	c	d
1186-150A	0-150mm/0-6"	±0.04mm	239	40	16.5	16	110
1186-200A	0-200mm/0-8"	±0.04mm	289	50	19.5	16	120
1186-300A	0-300mm/0-12"	±0.05mm	389	60	20.5	17	130

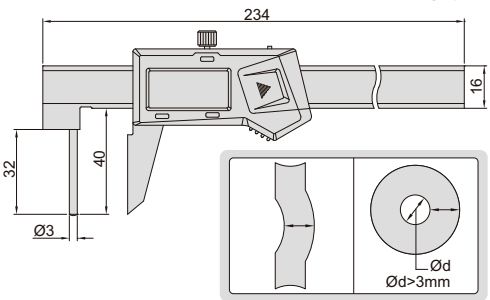
DIGITAL TUBE THICKNESS CALIPER

DATA OUTPUT

1161-150A

- Measure wall thickness of tubes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Unit: mm



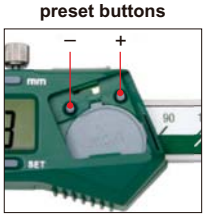
Code	Range	Accuracy
1161-150A	0-150mm/0-6"	±0.05mm

DIGITAL RTJ RING GROOVE CALIPER

DATA OUTPUT

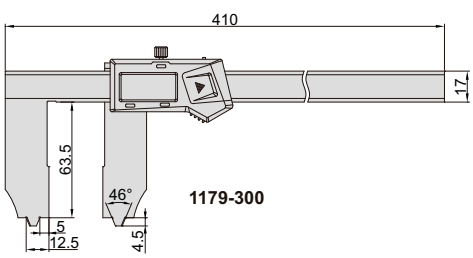
1179-300

preset buttons

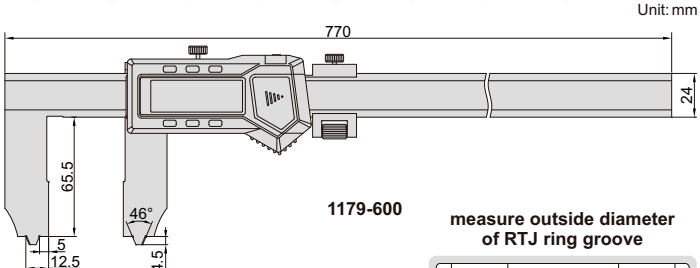


1179-600

Unit: mm



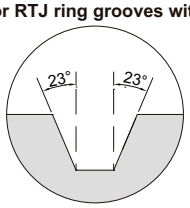
1179-300



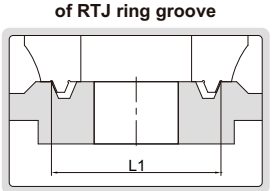
1179-600

- Measure ring grooves of flange
- Resolution: 0.01mm/0.0005"
- Button function: on/off, set, zero, mm/inch, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

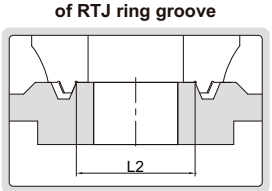
applicable for RTJ ring grooves with angle 23°



measure outside diameter of RTJ ring groove



measure inside diameter of RTJ ring groove



Code	Range (inside diameter of RTJ ring groove)	Range (outside diameter of RTJ ring groove)	Angle of RTJ ring groove	Accuracy
1179-300	10-300mm/0.4-12"	25-300mm/1-12"	23°	±0.06mm
1179-600	10-600mm/0.4-24"	25-600mm/1-24"	23°	±0.07mm

DIGITAL CRIMP HEIGHT CALIPER

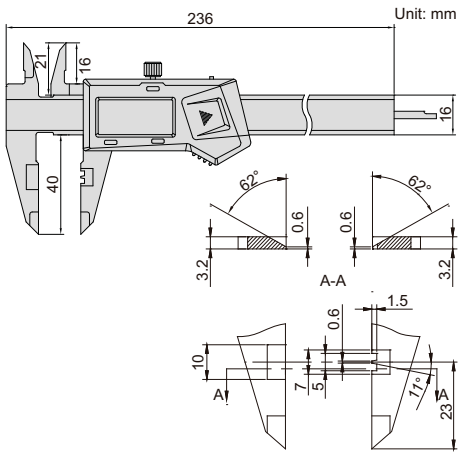
RELATIVE PRODUCT:
CRIMP HEIGHT MICROMETER
(CODE 3266-25BA, 3566-25BA)

DATA OUTPUT

1165-150A

- Measure crimp height
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Range	Accuracy
1165-150A	0-150mm/0-6"	±0.03mm



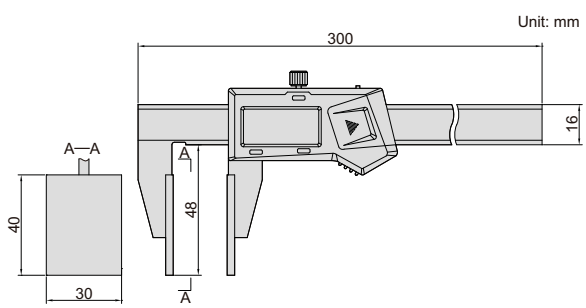
DIGITAL CALIPER WITH LARGE MEASURING FACES

DATA OUTPUT

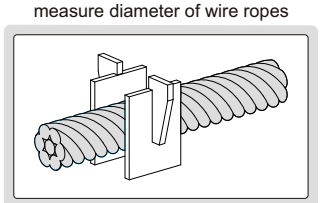
1172-200

- Measure diameter of wire ropes, and thickness of soft materials like rubber, sponge, etc.
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

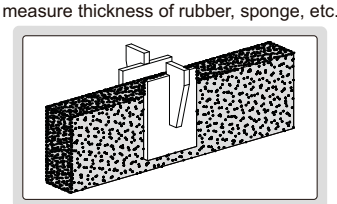
Code	Range	Accuracy
1172-200	0-200mm/0-8"	±0.07mm



measure diameter of wire ropes



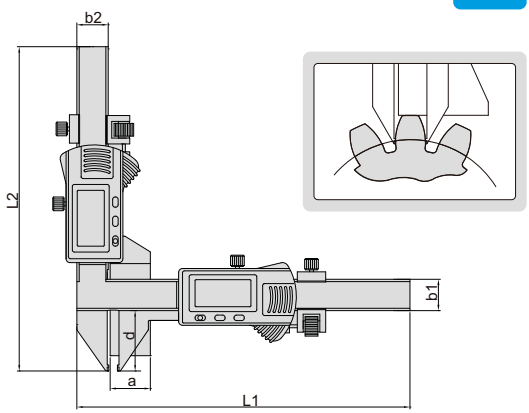
measure thickness of rubber, sponge, etc.



DIGITAL GEAR TOOTH CALIPER

DATA OUTPUT

1181-M25A



- Resolution: 0.01mm/0.0005"
- Carbide tips
- Buttons: zero, on/off, mm/inch
- Battery LR44
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

(mm)

Code	Range	Accuracy	L1	L2	a	b1	b2	d
1181-M25A	M1-25mm	±0.04mm	170	165.5	21	16	16	30.5
1181-M50A	M5-50mm	±0.04mm	220	190	50.5	16	16	55

DIGITAL DISK BRAKE CALIPER

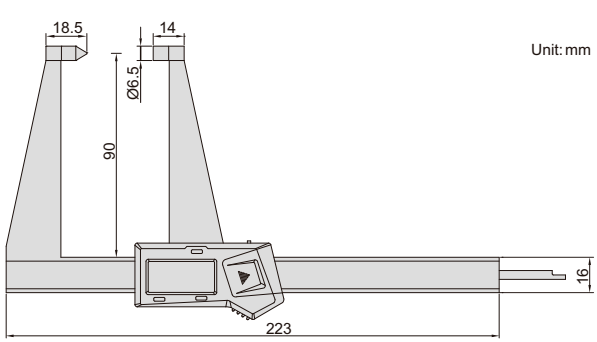
DATA OUTPUT

RELATIVE PRODUCT: DISK BRAKE MICROMETER (CODE 3288-, 3588-)

1162-125A

- Measure thickness of disk brakes
- Resolution 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Range	Accuracy
1162-125A	0-125mm/0-5"	±0.05mm

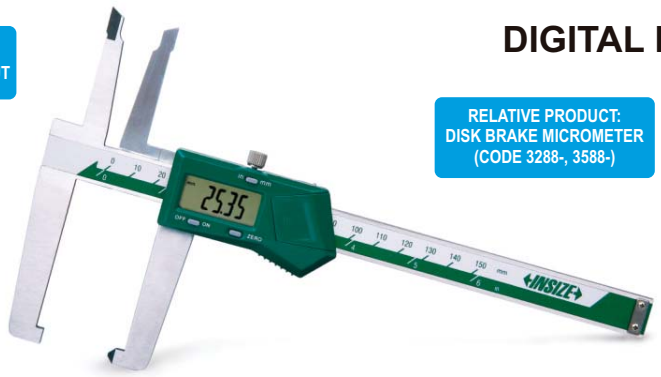


Unit: mm

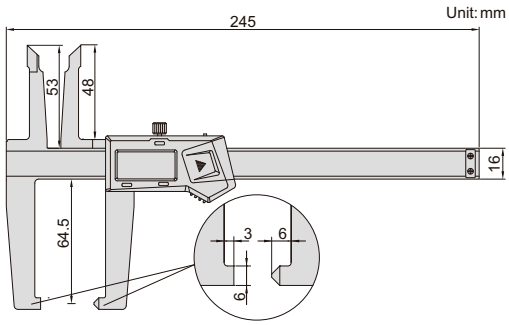
DATA OUTPUT

DIGITAL DISK BRAKE AND PAD CALIPER

RELATIVE PRODUCT:
DISK BRAKE MICROMETER
(CODE 3288-, 3588-)

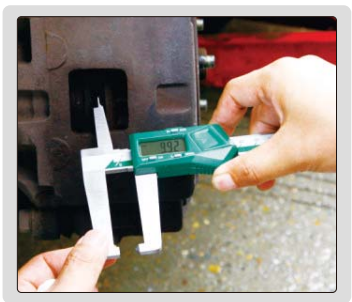


1167-150A



- Measure thickness of disk brakes and pad wear
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

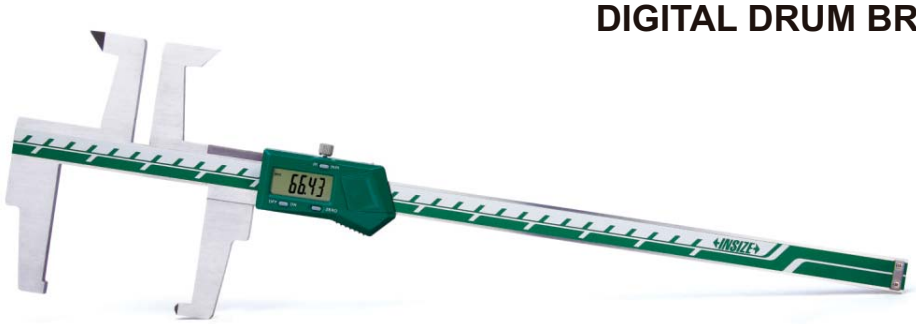
Code	Range	Accuracy
1167-150A	0-150mm/0-6"	±0.07mm



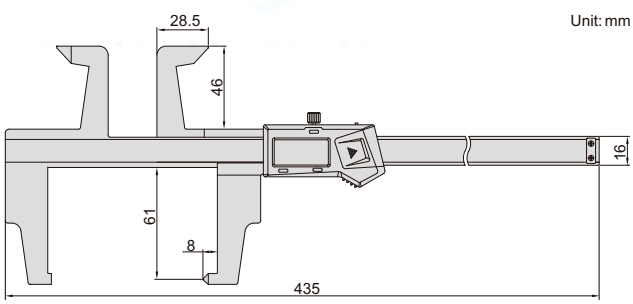
DATA OUTPUT

DIGITAL DRUM BRAKE CALIPER

RELATIVE PRODUCT:
DISK BRAKE MICROMETER
(CODE 3288-, 3588-)

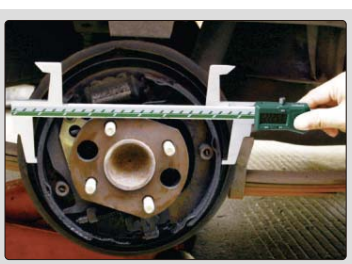


1168-300A



- Measure internal and external diameter of drum brakes
- Resolution 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Range	Accuracy
1168-300A	0-300mm/0-12"	±0.07mm



WATERPROOF DIGITAL DEPTH GAGE

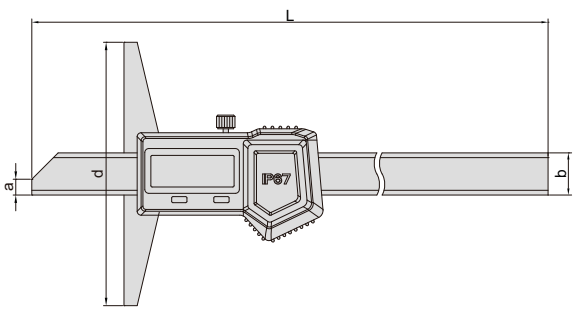
ATTENTION: NO DATA OUTPUT

IP67 WATERPROOF

ATTENTION: IT IS NECESSARY TO SET ZERO AFTER POWER ON EACH TIME

1149-150

- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Button function: zero, on/off, mm/inch, ABS/REL, hold
- Meet DIN862
- Battery CR2032
- Made of stainless steel



(mm)

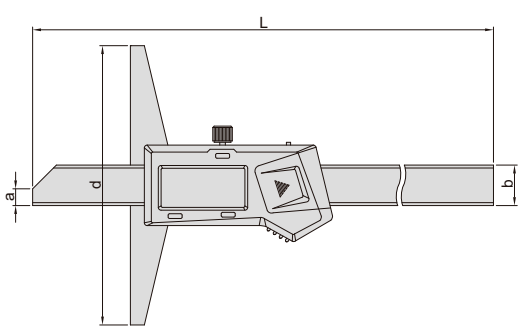
Code	Range	Accuracy	L	a	b	d
1149-150	0-150mm/0-6"	±0.03mm	240	6	16	100
1149-200	0-200mm/0-8"	±0.03mm	290	6	16	100
1149-300	0-300mm/0-12"	±0.03mm	390	6	16	150

DIGITAL DEPTH GAGE

DATA OUTPUT

1141-150A

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862 (except **1141-500A**)
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



(mm)

Code	Range	Accuracy	L	a	b	d
1141-150A	0-150mm/0-6"	±0.03mm	230	6	14.5	100
1141-200A	0-200mm/0-8"	±0.03mm	280	6	14.5	100
1141-300A	0-300mm/0-12"	±0.03mm	380	6	14.5	150
1141-500A	0-500mm/0-20"	±0.05mm	585	7	15	150

CAN BE INSTALLED WITH EXTENSION BASE

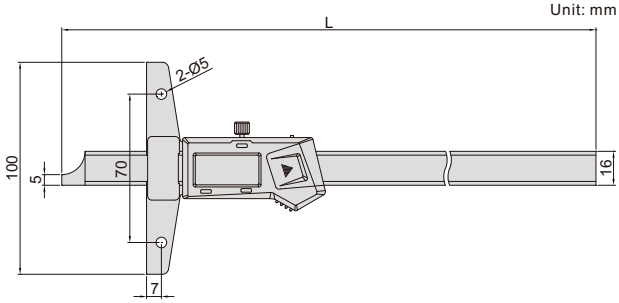
DATA OUTPUT

DIGITAL DEPTH GAGE

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**), extension base (code **6141**)

1147-300

Unit: mm



extension base (optional)

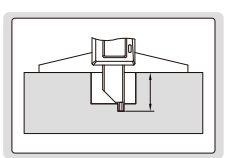
6141 series

(mm)

Code	Range	Accuracy	L
1147-150	0-150mm/0-6"	±0.03mm	237
1147-200	0-200mm/0-8"	±0.03mm	287
1147-300	0-300mm/0-12"	±0.03mm	403

DATA OUTPUT

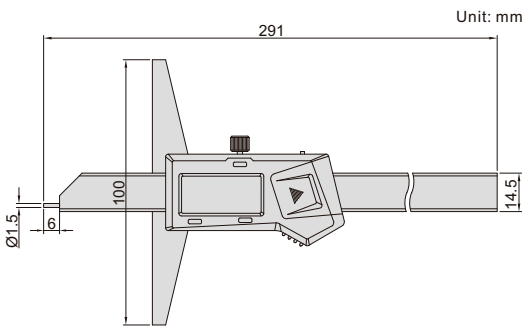
DIGITAL POINT DEPTH GAGE



1143-200A

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Unit: mm



Code	Range	Accuracy
1143-200A	0-200mm/0-8"	±0.03mm

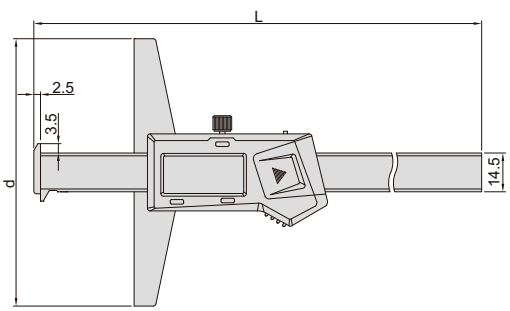
DIGITAL DOUBLE HOOK DEPTH GAGE

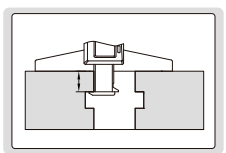
DATA OUTPUT

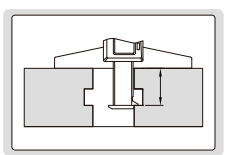
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

1144-150A

Unit: mm







(mm)

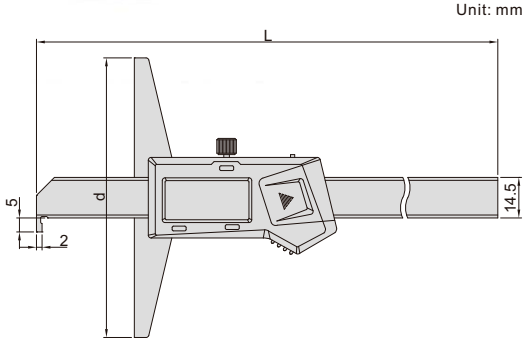
Code	Range	Accuracy	L	d
1144-150A	0-150mm/0-6"	±0.03mm	233	100
1144-200A	0-200mm/0-8"	±0.03mm	283	100
1144-300A	0-300mm/0-12"	±0.03mm	383	150

DIGITAL HOOK DEPTH GAGE

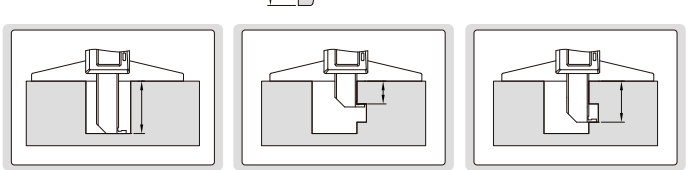
DATA OUTPUT

1142-150A

Unit: mm



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



(mm)

Code	Range	Accuracy	L	d
1142-150A	0-150mm/0-6"	±0.03mm	230	100
1142-200A	0-200mm/0-8"	±0.03mm	280	100
1142-300A	0-300mm/0-12"	±0.04mm	380	150

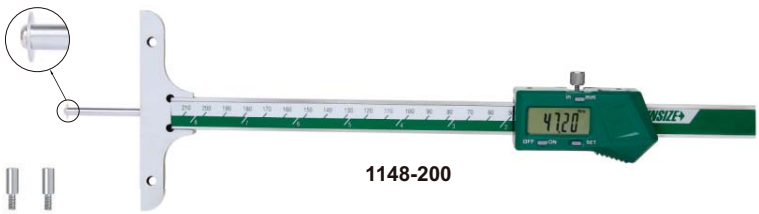
DIGITAL DEPTH GAGE WITH ROUND DEPTH BAR

MEASURE WIDTH AND DEPTH OF GROOVES INSIDE BORE

MEASURE DEPTH OF SMALL HOLES (>Ø4mm)

DATA OUTPUT

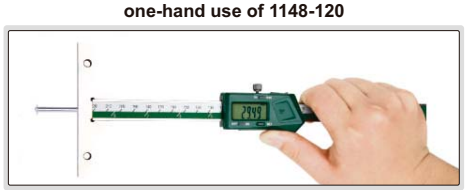
1148-100S



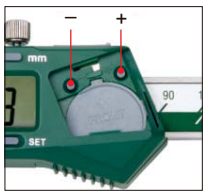
1148-200

1148-120

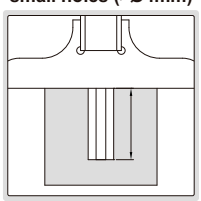
one-hand use of 1148-120



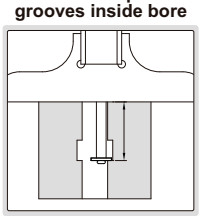
preset buttons



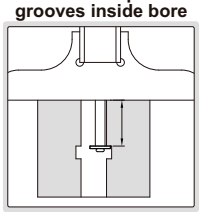
measure depth of small holes (>Ø4mm)



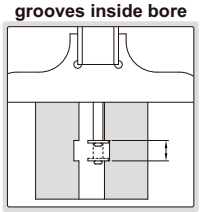
measure depth of grooves inside bore



measure depth of grooves inside bore

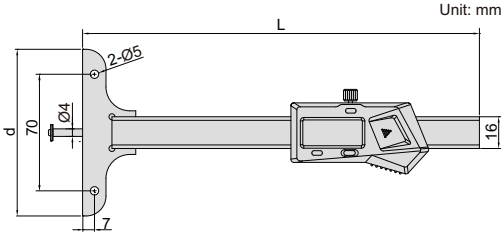


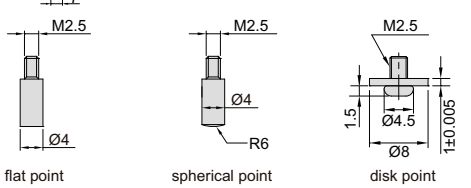
measure width of grooves inside bore



- Resolution: 0.01mm/0.0005"
- Supplied with three interchangeable points (flat, spherical, disk)
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory:
  data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**),
  disk points (see below table),
  extension base (code **6141**, for **1148-120** and **1148-200**)

Unit: mm





flat point | spherical point | disk point

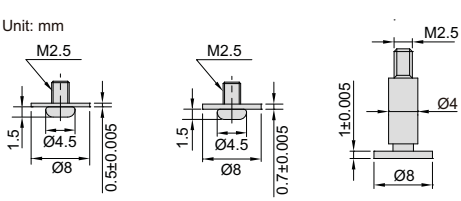
extension base for 1148-120 and 1148-200 (optional)

6141 series

1148-P101 (optional)

1148-P103 (optional)

Unit: mm



1148-P101 | 1148-P102 | 1148-P103

(mm)

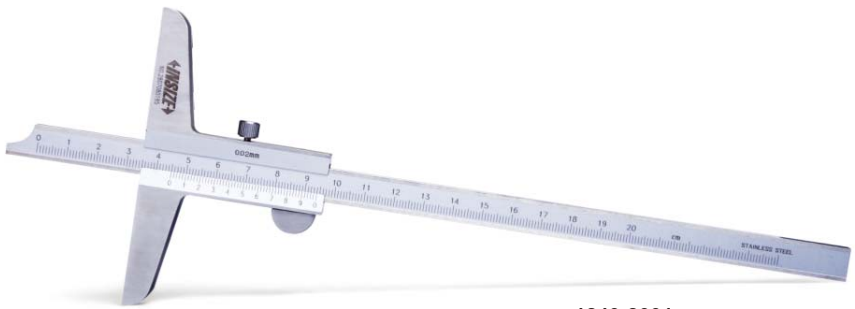
Code	Range *	Accuracy	L	d	Remark
1148-100S	0-100mm/0-4"	±0.02mm	200	45	
1148-100	0-100mm/0-4"	±0.02mm	200	85	
1148-120	0-120mm/0-4.7"	±0.03mm	300	101	one-hand use, with clamp holes for extension base
1148-200	0-200mm/0-8"	±0.03mm	300	101	with clamp holes for extension base

*When disk points are used, the range is reduced by 10mm

OPTIONAL DISK POINTS

Code	Description	Remark
1148-P101	0.5mm disk point	for narrow grooves
1148-P102	0.7mm disk point	for narrow grooves
1148-P103	1mm disk point	for grooves inside blind hole

VERNIER DEPTH GAGE



1240-2001

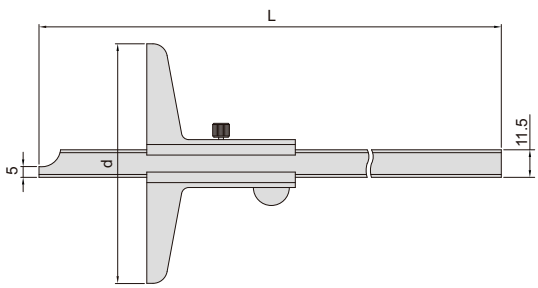
Graduation 0.05mm **(mm)**

Code	Range	Accuracy	L	d
1240-150	0-150mm	±0.05mm	245	100
1240-200	0-200mm	±0.05mm	282	100
1240-300	0-300mm	±0.08mm	382	100
1240-500	0-500mm	±0.09mm	585	150

Graduation 0.02mm **(mm)**

Code	Range	Accuracy	L	d
1240-1501	0-150mm	±0.03mm	245	100
1240-2001	0-200mm	±0.03mm	282	100
1240-3001	0-300mm	±0.04mm	382	100
1240-5001	0-500mm	±0.05mm	585	150

Unit: mm



- Made of stainless steel
- Satin chrome plated reading surface

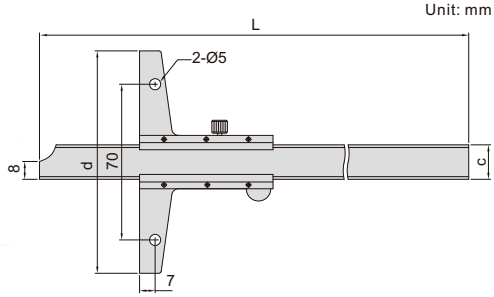
VERNIER DEPTH GAGE

extension base (optional)

6141 series

1247-1501

Unit: mm



- Made of stainless steel
- Satin chrome plating finish on reading surface
- Optional accessory: extension base (code **6141**)

Graduation 0.05mm

Code	Range	Accuracy
1247-150	0-150mm	±0.05mm
1247-200	0-200mm	±0.05mm
1247-300	0-300mm	±0.08mm
1247-600	0-600mm	±0.10mm
1247-1000	0-1000mm	±0.15mm

Graduation 0.02mm

Code	Range	Accuracy
1247-1501	0-150mm	±0.03mm
1247-2001	0-200mm	±0.03mm
1247-3001	0-300mm	±0.04mm
1247-6001	0-600mm	±0.05mm
1247-1001	0-1000mm	±0.07mm

(mm)

Range	L	c	d
0-150mm	240	16	100
0-200mm	290	16	100
0-300mm	390	16	100
0-600mm	704	16	150
0-1000mm	1124	18	200

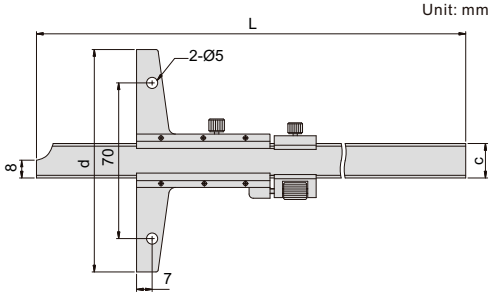
VERNIER DEPTH GAGE

1249-1501

extension base (optional)

6141 series

Unit: mm



- With fine adjustment
- Made of stainless steel
- Satin chrome plating finish on reading surface
- Optional accessory: extension base (code **6141**)

Graduation 0.05mm

Code	Range	Accuracy
1249-150	0-150mm	±0.05mm
1249-200	0-200mm	±0.05mm
1249-300	0-300mm	±0.08mm

Graduation 0.02mm

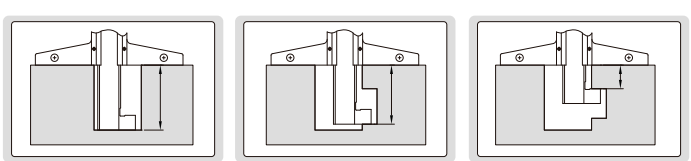
Code	Range	Accuracy
1249-1501	0-150mm	±0.03mm
1249-2001	0-200mm	±0.03mm
1249-3001	0-300mm	±0.04mm

(mm)

Range	L	c	d
0-150mm	256	16	100
0-200mm	306	16	100
0-300mm	406	16	100

VERNIER HOOK DEPTH GAGE

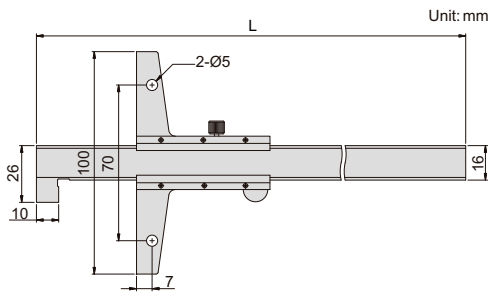
1248-1501



extension base (optional)

6141 series

Unit: mm



- Made of stainless steel
- Satin chrome plating finish on reading surface
- Optional accessory: extension base (code **6141**)

Graduation 0.05mm

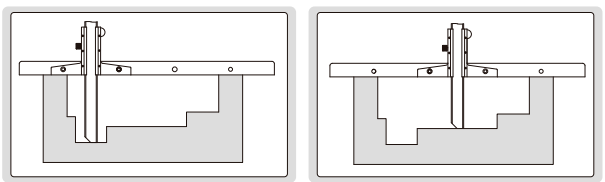
Code	Range	Accuracy	L
1248-150	0-150mm	±0.05mm	266mm
1248-200	0-200mm	±0.05mm	316mm
1248-300	0-300mm	±0.08mm	416mm

Graduation 0.02mm

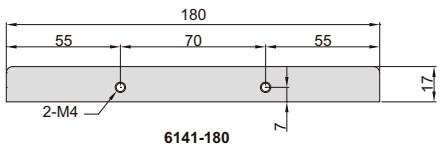
Code	Range	Accuracy	L
1248-1501	0-150mm	±0.03mm	266mm
1248-2001	0-200mm	±0.03mm	316mm
1248-3001	0-300mm	±0.04mm	416mm

EXTENSION BASE

6141-260

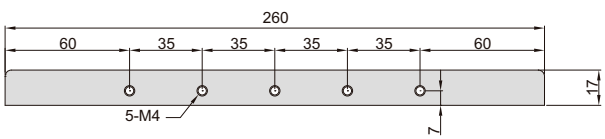


Unit: mm



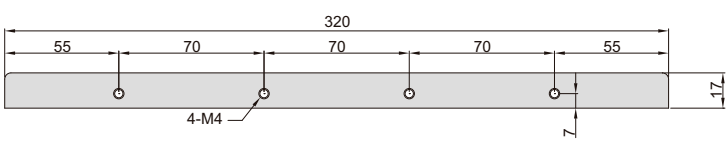
6141-180

- Supplied with two screws
- Made of stainless steel
- Suitable for depth gages series **1147**, **1148**, **1247**, **1248** and **1249**



6141-260

Code	Length
6141-180	180mm
6141-260	260mm
6141-320	320mm

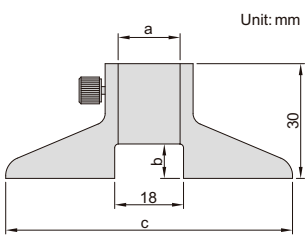


6141-320

DEPTH BASE ATTACHMENT

Unit: mm

6140



- To increase the stability of depth measurement
- Suitable for digital calipers
- Made of stainless steel

(mm)

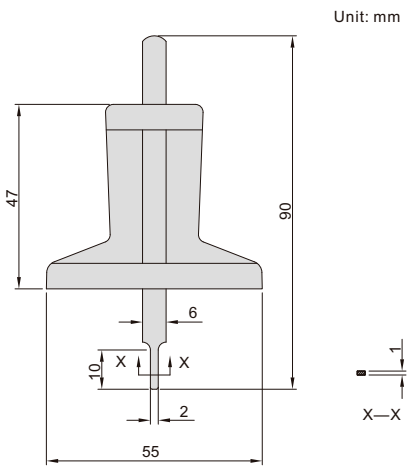
Code	a	b	c	Application
6140	16.5	9	75	Suitable for digital calipers with beam width (w) 16mm
6140-300	17	10	125	Suitable for digital calipers with beam width (w) 17mm

ATTENTION:
BASIC MODEL

VERNIER DEPTH GAGE

1244-30

Unit: mm



- Graduation: 0.1mm
- Made of stainless steel

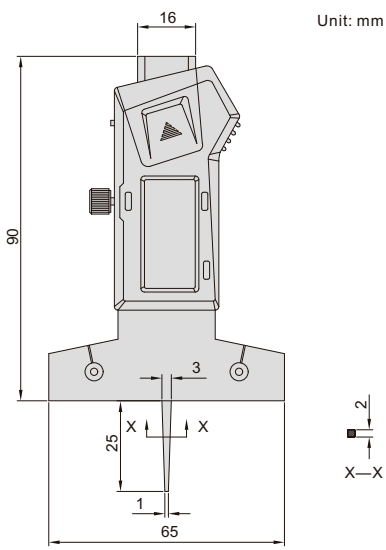
Code	Range	Accuracy
1244-30	0-30mm	±0.10mm

DATA
OUTPUT

DIGITAL DEPTH GAGE

1145-25A

Unit: mm

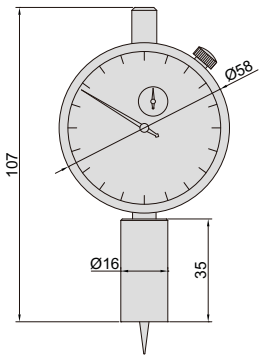


- Measure depth of small groove and hole, also measure depth of tire read
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Supplied with zero set surface
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

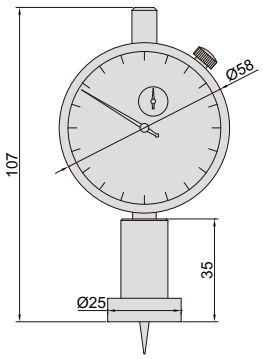
Code	Range	Accuracy
1145-25A	0-25mm/0-1"	±0.03mm

DIAL DEPTH GAGE

Unit: mm



2343-101



2343-102

2343-102

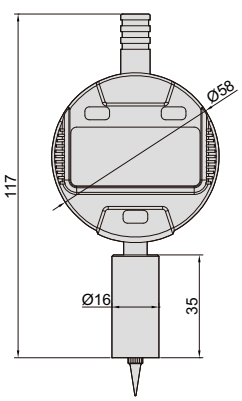
- Stainless steel base
- Pointed tip

Code	Range	Dial indicator stroke	Dial indicator graduation	Accuracy	Base
2343-101	0-10mm	10mm	0.01mm	±0.017mm	Ø16mm
2343-102	0-10mm	10mm	0.01mm	±0.017mm	Ø25mm

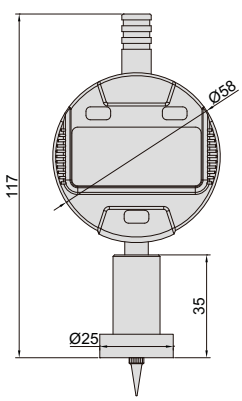
DIGITAL DEPTH GAGE

DATA OUTPUT

Unit: mm



2142-101



2142-102

2142-102

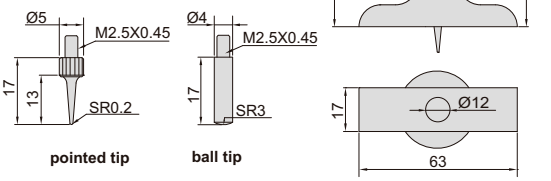
- Button function: on/off, zero, mm/inch, ABS, data preset, change measuring direction
- CR2032 battery, automatic power off
- Data ouput
- Stainless steel base
- Pointed tip
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**)

Code	Range	Digital indicator stroke	Digital indicator resolution	Accuracy	Base
2142-101	0-12.7mm/0-0.5"	12.7mm/0.5"	0.01mm/0.0005"	±0.02mm	Ø16mm
2142-102	0-12.7mm/0-0.5"	12.7mm/0.5"	0.01mm/0.0005"	±0.02mm	Ø25mm

DIAL DEPTH GAGE

- Stainless steel base
- Supplied with pointed tip and ball tip

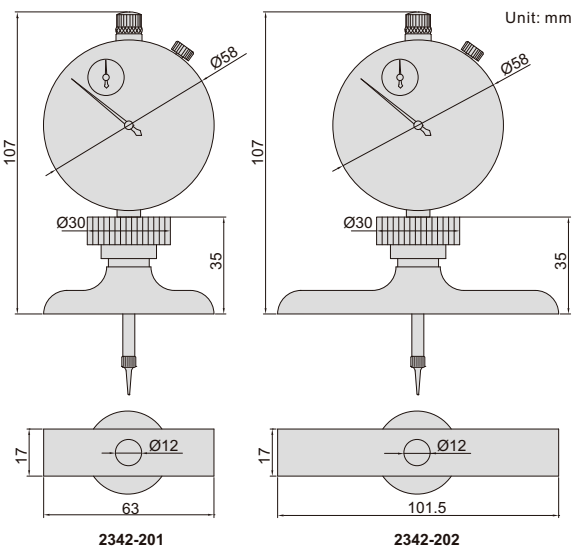
2341-101A



Code	Range	Dial indicator stroke	Dial indicator graduation	Accuracy
2341-101A	0-10mm	10mm	0.01mm	±0.017mm

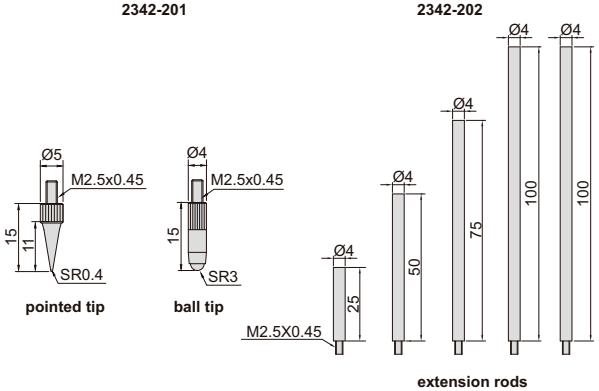
DIAL DEPTH GAGE

2342-202



2342-201 **2342-202**

- Dial indicator graduation: 0.01mm
- Accuracy: ±0.03mm
- Stainless steel base
- Extension rods: 25mm(1pc), 50mm(1pc), 75mm(1pc), 100mm(2pcs)
- Supplied with pointed tip and ball tip



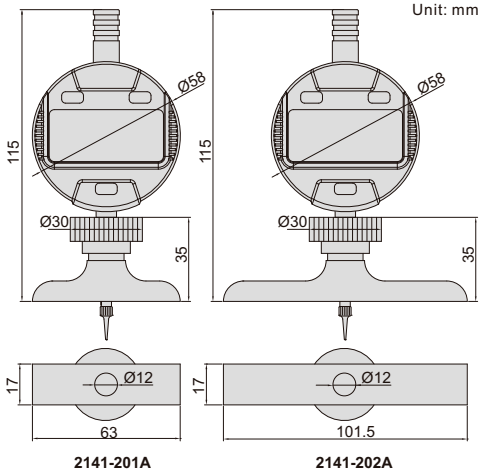
Code	Range	Dial indicator stroke	Base
2342-201	0-300mm	30mm	63x17mm
2342-202	0-300mm	30mm	101.5x17mm

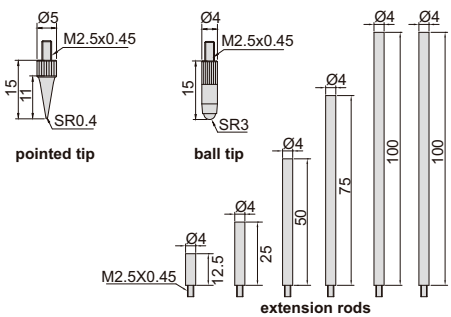
DIGITAL DEPTH GAGE

DATA OUTPUT

2141-202A

Unit: mm





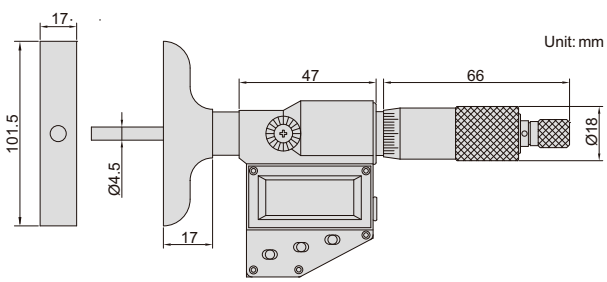
- Button function: on/off, zero, mm/inch, ABS, data preset, change measuring direction
- CR2032 battery, automatic power off
- Data ouput
- Stainless steel base
- Extension rods: 12.5mm(1pc), 25mm(1pc), 50mm(1pc), 75mm(1pc), 100mm(2pcs)
- Supplied with pointed tip and ball tip
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**)

Code	Range	Digital indicator stroke	Digital indicator resolution	Accuracy	Base
2141-201A	0-300mm/0-12"	12.7mm/0.5"	0.01mm/0.0005"	±0.02mm	63x17mm
2141-202A	0-300mm/0-12"	12.7mm/0.5"	0.01mm/0.0005"	±0.02mm	101.5x17mm

DIGITAL DEPTH MICROMETER

IP54 WATERPROOF

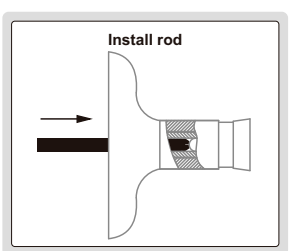
DATA OUTPUT



3540-50

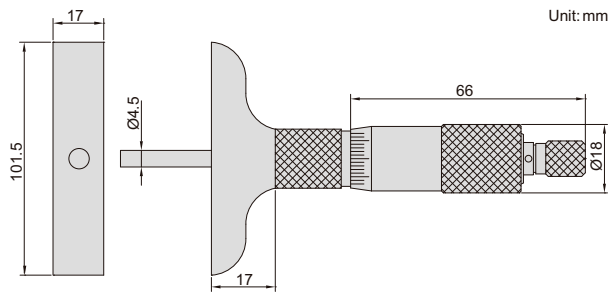
- Resolution: 0.001mm/0.00005"
- Micrometer head accuracy: +/-3μm
- Rod accuracy: +/-(2+L/75)μm, L is the measuring range in mm
- Button function: on/off, set, mm/inch, ABS/INC, data output
- IP54 dust/waterproof
- Data output
- LR44 battery, automatic power off
- Rods with flat end
- Ratchet stop
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

Code	Range	Rods
3540-50	0-50mm/0-2"	2pcs
3540-150	0-150mm/0-6"	6pcs
3540-300	0-300mm/0-12"	12pcs



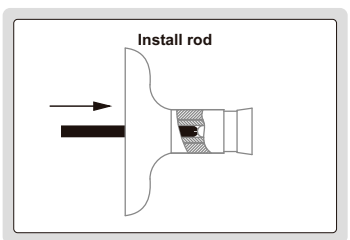
DEPTH MICROMETER

3240-100



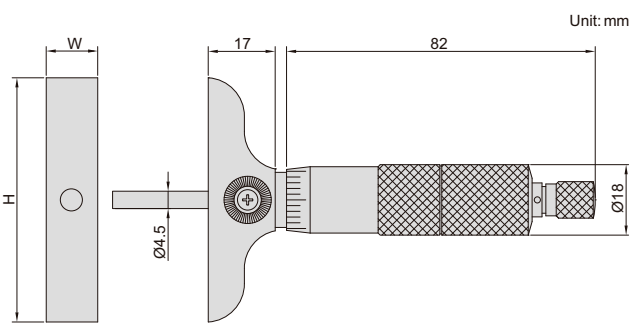
Code	Range	Rods
3240-25	0-25mm	1pc
3240-50	0-50mm	2pcs
3240-75	0-75mm	3pcs
3240-100	0-100mm	4pcs
3240-150	0-150mm	6pcs
3240-200	0-200mm	8pcs
3240-300	0-300mm	12pcs

- Graduation: 0.01mm
- Micrometer head accuracy: +/-3μm
- Rod accuracy: +/-(2+L/75)μm,
  L is the measuring range in mm
- Rods with flat end
- Ratchet stop



DEPTH MICROMETER

3241-100



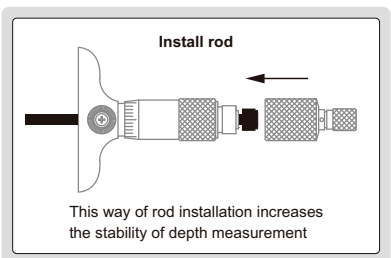
Base: HxW=101.5x17mm

Code	Range	Rods
3241-25	0-25mm	1pc
3241-50	0-50mm	2pcs
3241-75	0-75mm	3pcs
3241-100	0-100mm	4pcs
3241-150	0-150mm	6pcs
3241-200	0-200mm	8pcs
3241-300	0-300mm	12pcs

- Graduation: 0.01mm
- Micrometer head accuracy: +/-3μm
- Rod accuracy: +/-(2+L/75)μm,
  L is the measuring range in mm
- Rods with flat end
- Ratchet stop

Base: HxW=63x17mm

Code	Range	Rods
3241-B25	0-25mm	1pc



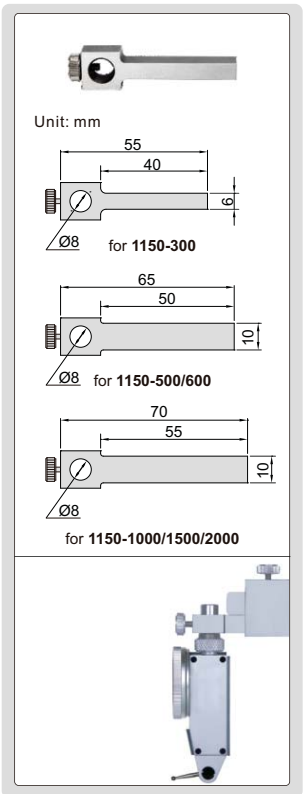
DIGITAL HEIGHT GAGE

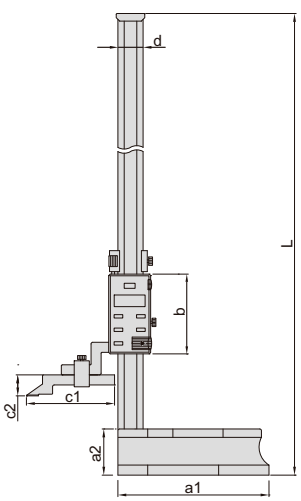
DATA OUTPUT

1150-1000

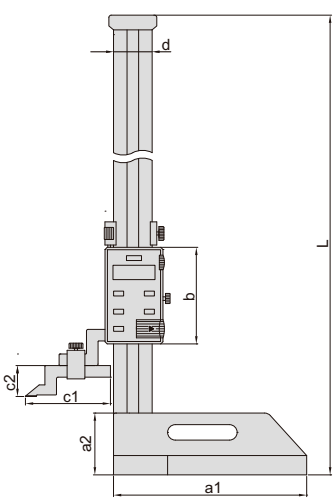
1150-500

dial test indicator holder (included)





type A



type B

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS/INC, data hold, TOL, set
- ABS/INC is for absolute and incremental measurement
- TOL is for tolerance measurement
- Carbide tipped scriber
- Made of stainless steel (except the base)
- LR44 battery
- Data output
- Supplied with dial test indicator holder
- Optional accessory: data output cable (code **7301-SPC5**)

(mm)

Code	Range	Type	Accuracy	L	a1	a2	b	c1	c2	d
1150-300	0-300mm/0-12"	A	±0.04mm	470	135	45	80	76	25	23
1150-500	0-500mm/0-20"	A	±0.05mm	720	180	55	95	103	25	30
1150-600	0-600mm/0-24"	A	±0.05mm	820	180	55	95	103	25	30
1150-1000	0-1000mm/0-40"	B	±0.07mm	1275	250	80	125	110	39	50
1150-1500	0-1500mm/0-60"	B	±0.11mm	1790	280	80	125	110	39	50
1150-2000	0-2000mm/0-80"	B	±0.15mm	2290	280	80	125	110	39	50

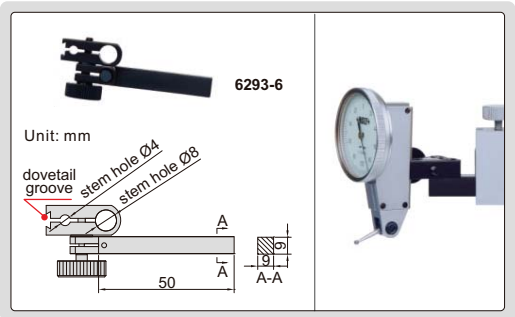
data output cable

7301-SPC5

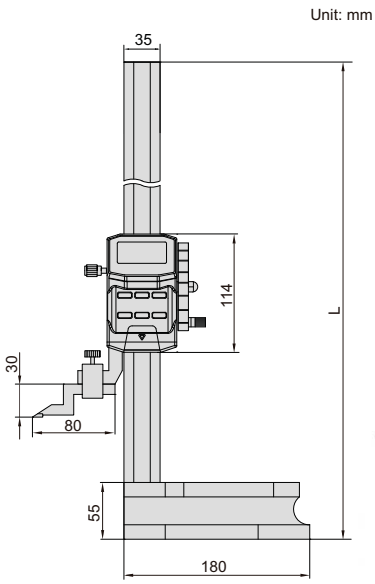
DIGITAL HEIGHT GAGE WITH DRIVING WHEEL

DATA OUTPUT

dial test indicator holder (optional)



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, preset +, preset -, hold
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steel
- Battery CR2032
- Data output
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**), dial test indicator holder (code **6293-6**)



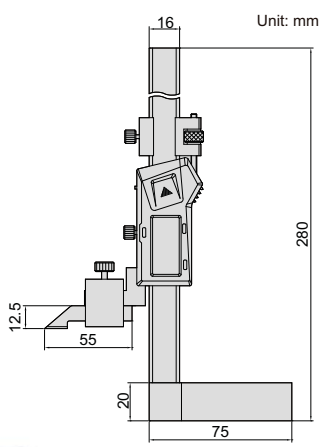
1156-300

Code	Range	Accuracy	L
1156-300	0-300mm/0-12"	±0.03mm	515mm
1156-600	0-600mm/0-24"	±0.05mm	815mm

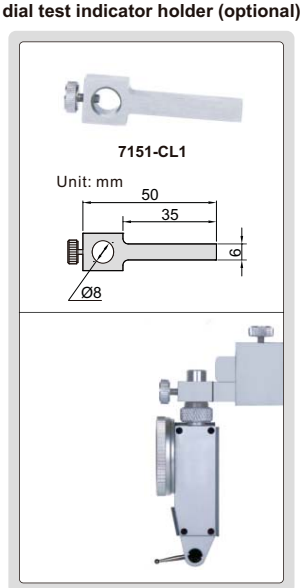
DIGITAL HEIGHT GAGE

DATA OUTPUT

1154-150



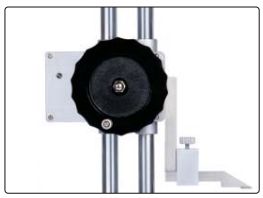
dial test indicator holder (optional)



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- With fine adjustment
- Made of stainless steel
- Battery CR2032
- Data output
- Optional accessory: data output cable, dial test indicator holder (code **7151-CL1**)

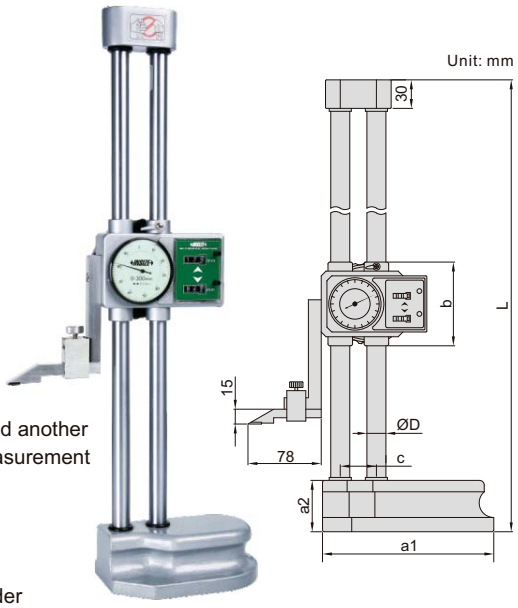
Code	Range	Accuracy
1154-150	0-150mm/0-6"	±0.03mm

DIAL HEIGHT GAGE



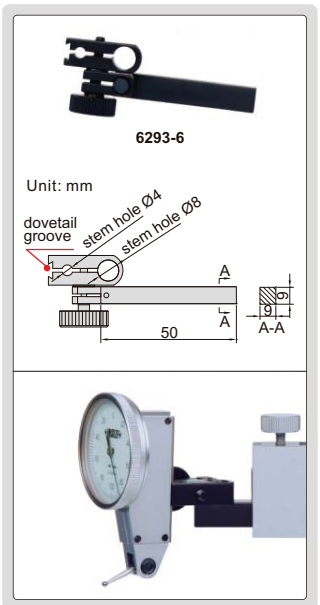
driving wheel

- Dial indicator graduation: 0.01mm
- One counter reads in the plus direction and another in the minus direction, so incremental measurement can be made in either direction
- Carbide tipped scriber
- Made of stainless steel (except the base)
- With driving wheel
- Optional accessory: dial test indicator holder (code **6293-6**)



1351-300

dial test indicator holder (optional)



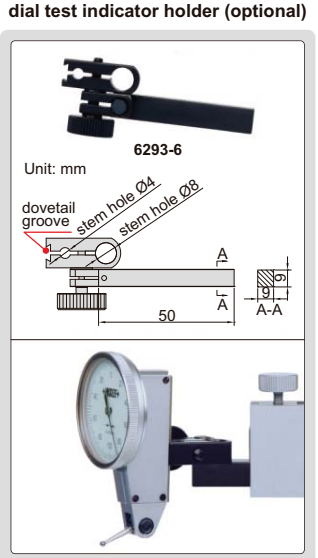
(mm)

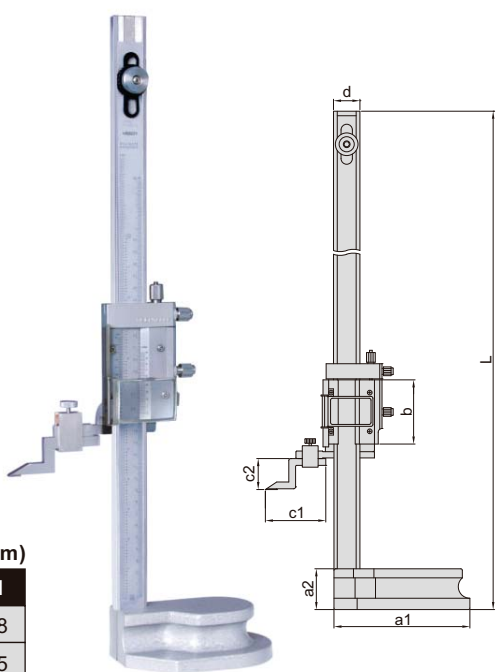
Code	Range	Accuracy	L	a1	a2	b	c	ØD
1351-300	0-300mm	±0.04mm	475	135	43	84	33	15
1351-450	0-450mm	±0.05mm	660	180	54	88	38	20
1351-600	0-600mm	±0.05mm	810	180	54	88	38	20

VERNIER HEIGHT GAGE

- Graduation: 0.02mm/0.001"
- Adjustable main scale to set zero
- Carbide tipped scriber
- Made of stainless steel (except the base)
- Satin chrome plated scale
- Supplied with magnifier
- With fine adjustment
- Optional accessory: dial test indicator holder (code **6293-6**)

dial test indicator holder (optional)





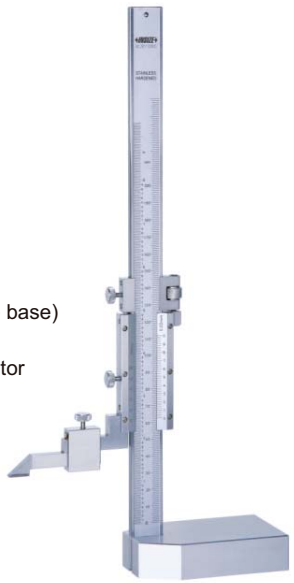
1250-300

(mm)

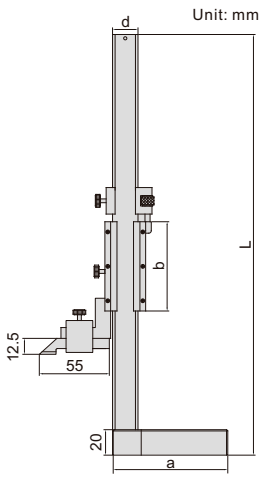
Code	Range	Accuracy	L	a1	a2	b	c1	c2	d
1250-300	0-300mm/0-12"	±0.04mm	545	135	43	75	80	30	28
1250-450	0-450mm/0-18"	±0.05mm	720	180	54	85	80	41	35
1250-600	0-600mm/0-24"	±0.05mm	870	180	54	85	80	41	35

VERNIER HEIGHT GAGE

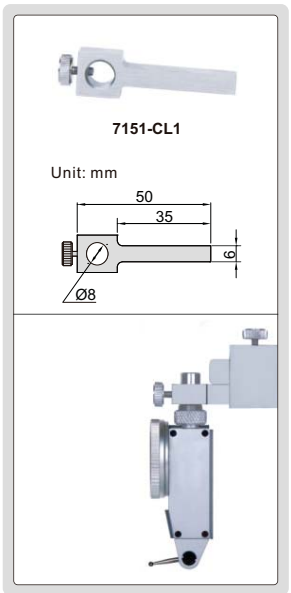
- Graduation 0.02mm/0.001"
- Carbide tipped scriber
- Made of stainless steel (except the base)
- Satin chrome plated scale
- Optional accessory: dial test indicator holder (code **7151-CL1**)



1253-200



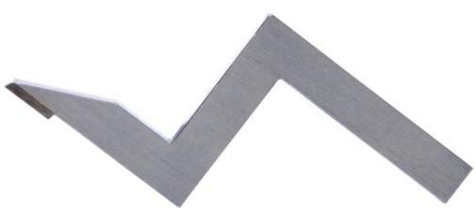
dial test indicator holder (optional)



(mm)

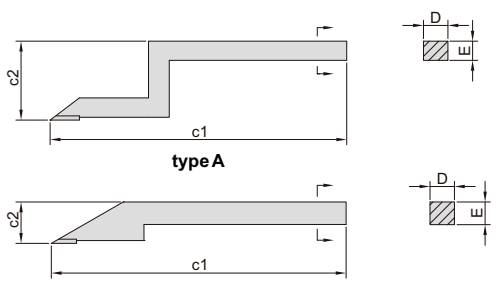
Code	Range	Accuracy	L	a	b	d
1253-150	0-150mm/0-6"	±0.03mm	265	75	57	16
1253-200	0-200mm/0-8"	±0.03mm	325	90	70	20

SCRIBER FOR HEIGHT GAGES



7150-SC1

- Carbide tipped



(mm)

Code	For height gages	Type	c1	c2	D	E
7150-SC1	1150-300	A	76	25	6	8
7150-SC2	1150-500, 1150-600	A	103	25	10	12
7150-SC3	1150-1000, 1150-1500, 1150-2000	A	110	39	10	15
7150-SC4	1351-300, 1351-450, 1351-600	B	78	15	9	9
7150-SC6	1250-300, 1156-300, 1156-600	A	80	30	9	9
7150-SC7	1250-450, 1250-600	A	80	41	9	9
7150-SC9	1253-150, 1253-200, 1154-150	B	55	12.5	6	8

NON-ROTATING SPINDLE DIGITAL MICROMETER

QUICK MEASUREMENT
ONE TURN OF SLEEVE OR RATCHET STOP MAKES 1MM SPINDLE FEED

NON-ROTATING SPINDLE

DATA OUTPUT

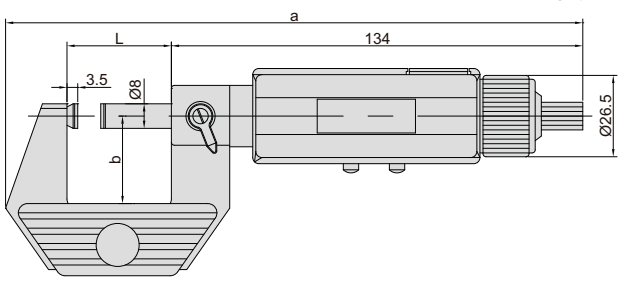
- Resolution: 0.001mm/0.00005"
- Repeatability: 1µm
- Measuring force: 5-10N
- Non-rotating spindle, suitable for cylinders
- Quick measurement: one turn of sleeve or ratchet stop makes 1mm spindle feed
- Carbide measuring faces
- Ratchet stop
- Data output
- Button function: mm/inch, max./min. value tracking, tolerance measurement, hold, on/off, zero
- CR2032 battery, automatic power off
- Supplied with setting standards (except 0-25mm/0-1")

3631-25

(mm)

Code	Range	Accuracy	L	a	b
3631-25	0-25mm/0-1"	±2µm	34	188	28.5
3631-50	25-50mm/1-2"	±2µm	59	211	30
3631-75	50-75mm/2-3"	±3µm	84	240	44
3631-100	75-100mm/3-4"	±3µm	109	264	56
3631-125	100-125mm/4-5"	±3µm	134	289	76
3631-150	125-150mm/5-6"	±3µm	160	314	89

Unit: mm



NON-ROTATING SPINDLE DIGITAL MICROMETER

LEVER DEVICE SUITABLE FOR MASS PRODUCTION

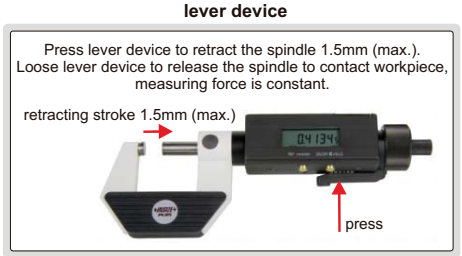
QUICK MEASUREMENT
ONE TURN OF SLEEVE OR RATCHET STOP MAKES 1MM SPINDLE FEED

NON-ROTATING SPINDLE

DATA OUTPUT

- Resolution: 0.001mm/0.00005"
- Repeatability: 1µm
- Measuring force: 5-10N
- Lever device suitable for mass production
- Non-rotating spindle, suitable for cylinders
- Quick measurement: one turn of sleeve or ratchet stop makes 1mm spindle feed
- Carbide measuring faces
- Ratchet stop
- Data output
- Button function: mm/inch, max./min. value tracking, tolerance measurement, hold, on/off, zero
- CR2032 battery, automatic power off

lever device

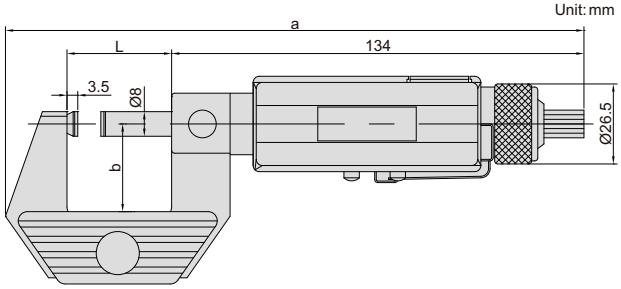


3632-25

(mm)

Code	Range	Accuracy	L	a	b
3632-25	0-25mm/0-1"	±2µm	34	188	28.5

Unit: mm



Inspection Certificate

Product name	Outside Micrometer
Code No.	3203-25A
Measuring range	0-25mm
Graduation	0.01mm
Serial No.	0910120004
Standard temperature	20 °C
Based on	DIN 863-1 (1999)
Traceable to	Germany DKD No.D-K-15190-01-00
Inspector	

Unit: μm

Measuring Length(mm)	Permissible Error	Error
0	4	0
7.7		+1
12.9		-1
17.6		0
22.8		+1
25		+1

Judgement: Passed

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD GERMANY, FOR MICROMETERS

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD

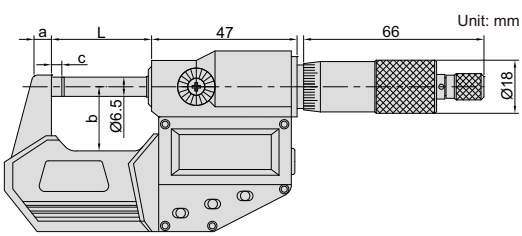
IP65 WATERPROOF

DATA OUTPUT

DIGITAL OUTSIDE MICROMETER

- Resolution 0.001mm/0.00005" (resolution of **3101-275A** and **3101-300A** is 0.001mm/0.0001")
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Carbide measuring faces
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

3101-25A



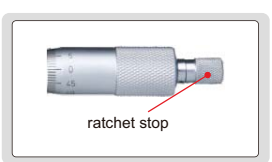
Ratchet stop type (mm)

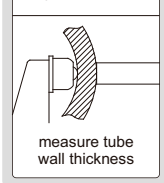
Code	Range	Accuracy	L	a	b	c
3101-25A*	0-25mm/0-1"	±2μm	32.5	6	24	3
3101-50A*	25-50mm/1-2"	±2μm	57.5	8	32	3
3101-75A*	50-75mm/2-3"	±3μm	82.5	8	44.5	3
3101-100A*	75-100mm/3-4"	±3μm	107.5	8	57	3
3101-125A	100-125mm/4-5"	±3μm	133	10	70	3
3101-150A	125-150mm/5-6"	±3μm	158.5	10	82	3
3101-175A	150-175mm/6-7"	±4μm	184	12	94.5	5.5
3101-200A	175-200mm/7-8"	±4μm	209.5	12	107	5.5
3101-225A	200-225mm/8-9"	±4μm	234	19.4	129.5	5.5
3101-250A	225-250mm/9-10"	±4μm	259.5	19.4	142.5	5.5
3101-275A	250-275mm/10-11"	±5μm	285	19.4	155	5.5
3101-300A	275-300mm/11-12"	±5μm	310.5	19.4	167.5	5.5

Friction thimble type (mm)

Code	Range	Accuracy	L	a	b	c
3101-25FA*	0-25mm/0-1"	±2μm	32.5	6	24	3

*Supplied with manufacturer inspection certificate traceable to DKD Germany





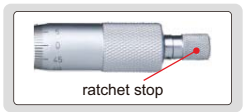
METRIC DIGITAL OUTSIDE MICROMETER

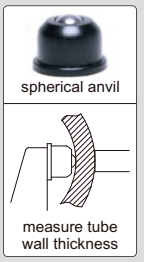
IP54 WATERPROOF

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD

ATTENTION: NO DATA OUTPUT

3108-25A





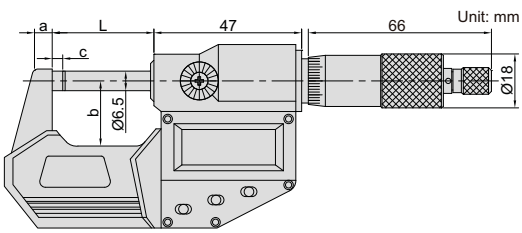
Ratchet stop type (mm)

Code	Range	Accuracy	L	a	b	c
3108-25A*	0-25mm	±2μm	32.5	6	24	3
3108-50A*	25-50mm	±2μm	57.5	8	32	3
3108-75A*	50-75mm	±3μm	82.5	8	44.5	3
3108-100A*	75-100mm	±3μm	107.5	8	57	3
3108-125A	100-125mm	±3μm	133	10	70	3
3108-150A	125-150mm	±3μm	158.5	10	82	3
3108-175A	150-175mm	±4μm	184	12	94.5	5.5
3108-200A	175-200mm	±4μm	209.5	12	107	5.5

Friction thimble type (mm)

Code	Range	Accuracy	L	a	b	c
3108-25FA*	0-25mm	±2μm	32.5	6	24	3

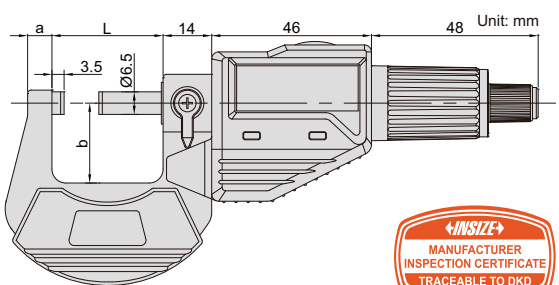
*Supplied with manufacturer inspection certificate traceable to DKD Germany



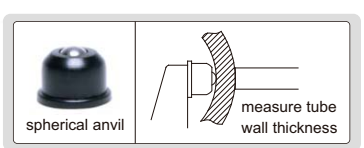
- Resolution 0.001mm
- IP54 dust/waterproof
- Button function: on/off, set, ABS/INC
- Without data output
- LR44 battery, automatic power off
- Carbide measuring faces
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm)

DIGITAL OUTSIDE MICROMETER

DATA OUTPUT



MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO DKD



3109-25B

(mm)

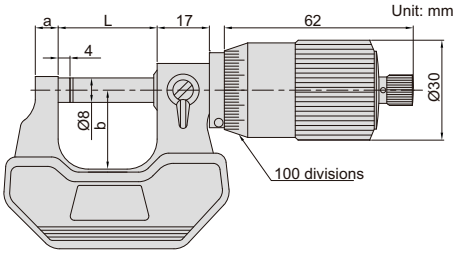
Code	Range	Accuracy	L	a	b
3109-25B*	0-25mm/0-1"	±2μm	31.5	7.0	23
3109-50B*	25-50mm/1-2"	±2μm	57.0	8.7	32
3109-75B*	50-75mm/2-3"	±3μm	82.5	7.5	44
3109-100B*	75-100mm/3-4"	±3μm	106.5	8.2	56

*Supplied with manufacturer inspection certificate traceable to DKD Germany

- Resolution 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- Battery CR2032, automatic power off
- Carbide measuring faces
- Friction thimble
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")
- Optional accessory: data output cable

QUICK FEEDING OUTSIDE MICROMETER

3208-25B



(mm)

Code	Range	Accuracy	L	a	b
3208-25B	0-25mm	4μm	32	6	24
3208-50B	25-50mm	4μm	57	8	32
3208-75B	50-75mm	5μm	82	8	45
3208-100B	75-100mm	5μm	107	8	57

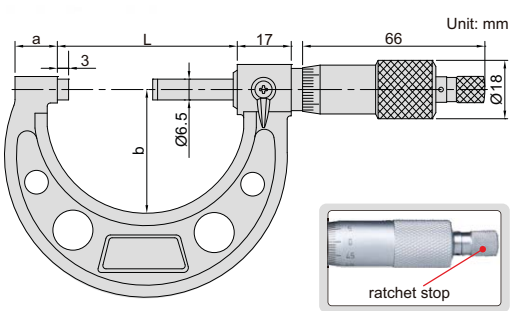
- Graduation 0.01mm
- 1mm feeding of each turn
- Friction thimble
- Carbide measuring faces
- Meet DIN863
- Supplied with setting standards (except 0-25mm)

OUTSIDE MICROMETER

3203-25A

3203-50A

- Graduation: 0.01mm
- Carbide measuring faces
- Meet DIN863
- Supplied with setting standards (except 0-25mm)



Ratchet stop type (mm)

Code	Range	Accuracy	L	a	b
3203-25A*	0-25mm	4μm	32	9	28
3203-50A*	25-50mm	4μm	57	14	38
3203-75A*	50-75mm	5μm	82	15	49
3203-100A*	75-100mm	5μm	107	15	60
3203-125A	100-125mm	6μm	133	16.5	73
3203-150A	125-150mm	6μm	158	16.5	85
3203-175A	150-175mm	7μm	183	19.4	104
3203-200A	175-200mm	7μm	209	19.4	117
3203-225A	200-225mm	8μm	234	19.4	130
3203-250A	225-250mm	8μm	260	19.4	142
3203-275A	250-275mm	9μm	285	19.4	155
3203-300A	275-300mm	9μm	310	19.4	168

Friction thimble type (mm)

Code	Range	Accuracy	L	a	b
3203-25FA*	0-25mm	4μm	32	9	28
3203-50FA*	25-50mm	4μm	57	14	38

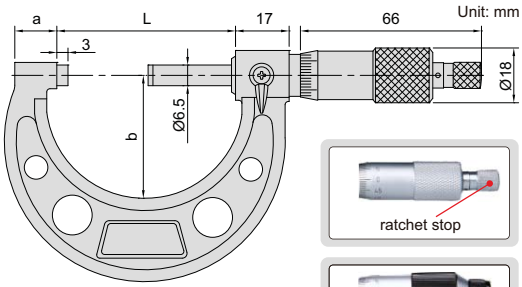
Micrometer set (ratchet stop type)

Code	Range	Micrometers included
3203-753A*	0-75mm	3203-25A, 3203-50A, 3203-75A
3203-1004A*	0-100mm	3203-25A, 3203-50A, 3203-75A, 3203-100A
3203-1506A	0-150mm	3203-25A, 3203-50A, 3203-75A, 3203-100A, 3203-125A, 3203-150A
3203-3006A	150-300mm	3203-175A,3203-200A,3203-225A, 3203-250A, 3203-275A, 3203-300A
3203-3012A	0-300mm	3203-25A, 3203-50A, 3203-75A, 3203-100A, 3203-125A, 3203-150A, 3203-175A,3203-200A, 3203-225A, 3203-250A, 3203-275A, 3203-300A

*Supplied with manufacturer inspection certificate traceable to DKD Germany

1μm GRADUATION OUTSIDE MICROMETER

3210-25A



- Graduation 0.001mm
- Carbide measuring faces
- Meet DIN863
- Supplied with setting standards (except 0-25mm)

Ratchet stop type (mm)

Code	Range	Accuracy	L	a	b
3210-25A*	0-25mm	4μm	32	9	28
3210-50A*	25-50mm	4μm	57	14	38
3210-75A*	50-75mm	5μm	82	15	49
3210-100A*	75-100mm	5μm	107	15	60
3210-125A	100-125mm	6μm	133	16.5	73
3210-150A	125-150mm	6μm	158	16.5	85
3210-175A	150-175mm	7μm	183	19.4	104
3210-200A	175-200mm	7μm	209	19.4	117

Friction thimble type (mm)

Code	Range	Accuracy	L	a	b
3210-25FA*	0-25mm	4μm	32	9	28
3210-50FA*	25-50mm	4μm	57	14	38

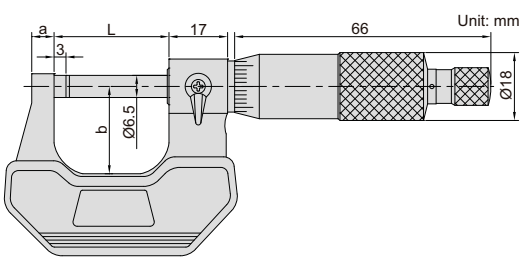
Micrometer set (ratchet stop type)

Code	Range	Micrometers included
3210-753A*	0-75mm	3210-25A, 3210-50A, 3210-75A
3210-1004A*	0-100mm	3210-25A, 3210-50A, 3210-75A, 3210-100A
3210-1506A	0-150mm	3210-25A, 3210-50A, 3210-75A, 3210-100A, 3210-125A, 3210-150A

*Supplied with manufacturer inspection certificate traceable to DKD Germany

OUTSIDE MICROMETER

3202-25A



- Graduation 0.01mm
- Carbide measuring faces
- Meet DIN863
- Supplied with setting standards (except 0-25mm)

(mm)

Code	Range	Accuracy	L	a	b
3202-25A*	0-25mm	4μm	32	6	24
3202-50A*	25-50mm	4μm	57	8	32
3202-75A*	50-75mm	5μm	82	8	45
3202-100A*	75-100mm	5μm	107	8	57

Micrometer set

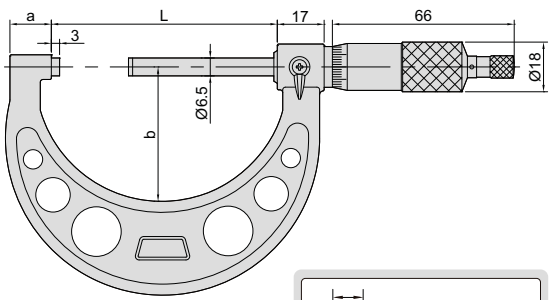
Code	Range	Micrometers included
3202-753A*	0-75mm	3202-25A, 3202-50A, 3202-75A
3202-1004A*	0-100mm	3202-25A, 3202-50A, 3202-75A, 3202-100A

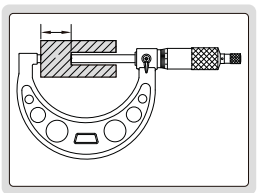
*Supplied with manufacturer inspection certificate traceable to DKD Germany

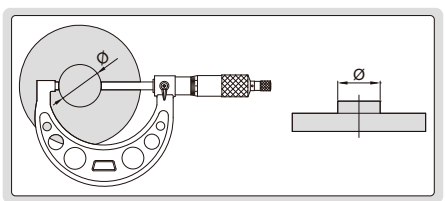
LONG SPINDLE OUTSIDE MICROMETER

3209-25

Unit: mm







- Graduation 0.01mm
- Carbide measuring faces
- Meet DIN863
- Ratchet stop
- Supplied with setting standards (except 0-25mm)

(mm)

Code	Range	Accuracy	L	a	b
3209-25	0-25mm	4μm	57	14	38
3209-50	25-50mm	4μm	82	15	49
3209-75	50-75mm	5μm	107	15	60
3209-100	75-100mm	5μm	133	16.5	73

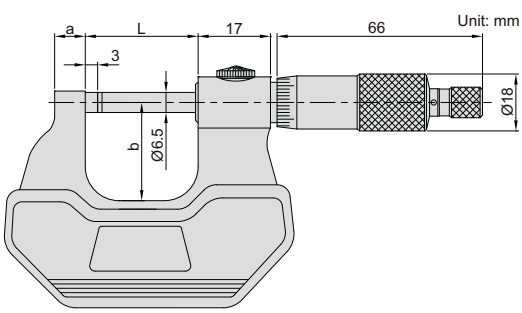
OUTSIDE MICROMETER FOR LEFT AND RIGHT HAND

front

back

3236-25B

Unit: mm

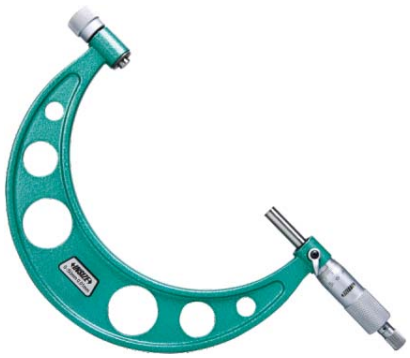


- Graduation 0.01mm
- Graduations on two sides
- Ratchet stop
- Carbide measuring faces
- Meet DIN863
- Supplied with setting standards (except 0-25mm)

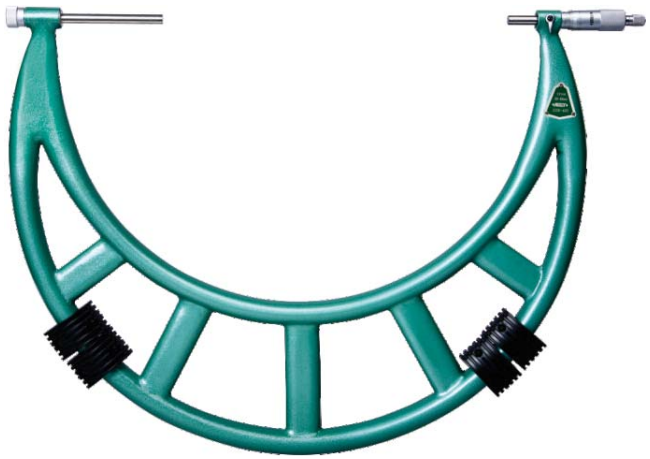
(mm)

Code	Range	Accuracy	L	a	b
3236-25B	0-25mm	4μm	32	6	24
3236-50B	25-50mm	4μm	57	8	32

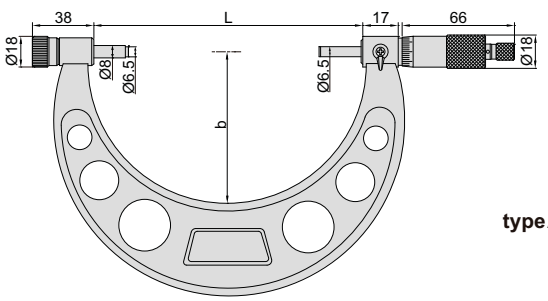
OUTSIDE MICROMETER WITH INTERCHANGEABLE ANVILS



3206-150A

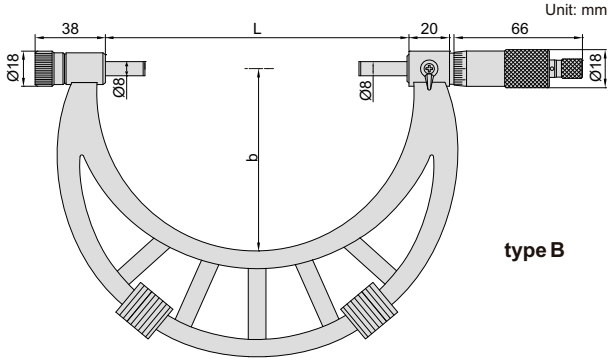


3206-400



type A

Unit: mm



type B

interchangeable anvils
for different measuring ranges

setting standard

(mm)

Code	Range	Type	Accuracy	L	b	Setting standard (included)
3206-50A	0-50mm	A	4μm	58	35	25
3206-100A	0-100mm	A	5μm	108	57	25, 50, 75
3206-150A	0-150mm	A	6μm	158	82	25, 50, 75, 100, 125
3206-151A	50-150mm	A	6μm	158	82	50, 75, 100, 125
3206-200A	100-200mm	A	7μm	208	114	100, 125, 150, 175
3206-300A	150-300mm	A	9μm	308	165	150, 175, 200, 225, 250, 275
3206-301A	200-300mm	A	9μm	308	165	200, 225, 250, 275
3206-400	300-400mm	B	11μm	409	224	325, 375
3206-500	400-500mm	B	13μm	509	275	425, 475
3206-600	500-600mm	B	14μm	609	321	525, 575
3206-700	600-700mm	B	16μm	709	371	625, 675
3206-800	700-800mm	B	18μm	809	426	725, 775
3206-900	800-900mm	B	20μm	909	476	825, 875
3206-1000	900-1000mm	B	22μm	1009	576	925, 975

- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards

DIGITAL OUTSIDE MICROMETER WITH INTERCHANGEABLE ANVILS

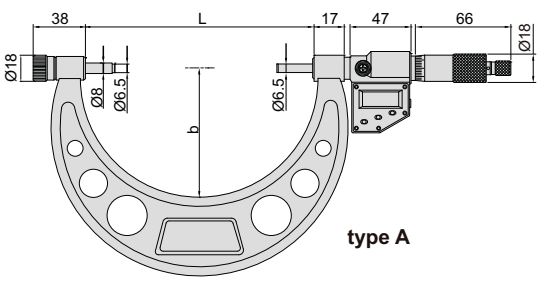
IP54 WATERPROOF

DATA OUTPUT

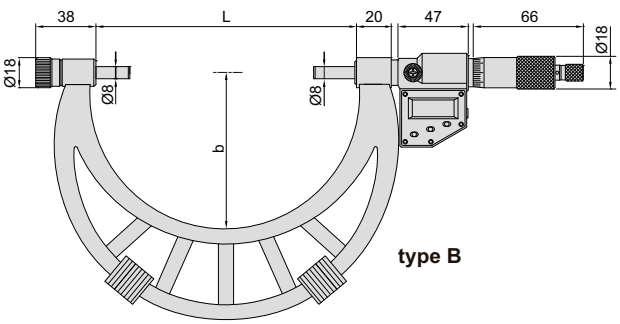
3506-100A

3506-400A

Unit: mm



type A



type B

- Resolution 0.001mm/0.0001" (resolution of **3506-100A** and **3506-150A** is 0.001mm/0.00005")
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

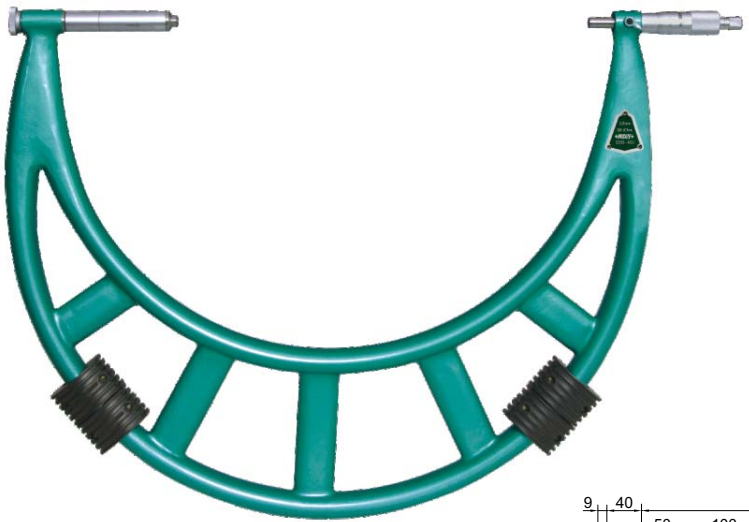
setting standard

(mm)

Code	Range	Type	Accuracy	L	b	Setting standard (included)
3506-100A	0-100mm/0-4"	A	±5μm	105	57	25, 50, 75
3506-150A	0-150mm/0-6"	A	±6μm	155	82	25, 50, 75, 100, 125
3506-300A	150-300mm/6-12"	A	±8μm	305	165	150, 175, 200, 225, 250, 275
3506-301A	200-300mm/8-12"	A	±8μm	305	165	200, 225, 250, 275
3506-400A	300-400mm/12-16"	B	±9μm	405	224	325, 375
3506-500A	400-500mm/16-20"	B	±11μm	505	275	425, 475
3506-600A	500-600mm/20-24"	B	±12μm	605	321	525, 575
3506-700A	600-700mm/24-28"	B	±13μm	705	371	625, 675
3506-800A	700-800mm/28-32"	B	±15μm	805	426	725, 775
3506-900A	800-900mm/32-36"	B	±16μm	905	476	825, 875
3506-1000A	900-1000mm/36-40"	B	±17μm	1005	576	925, 975

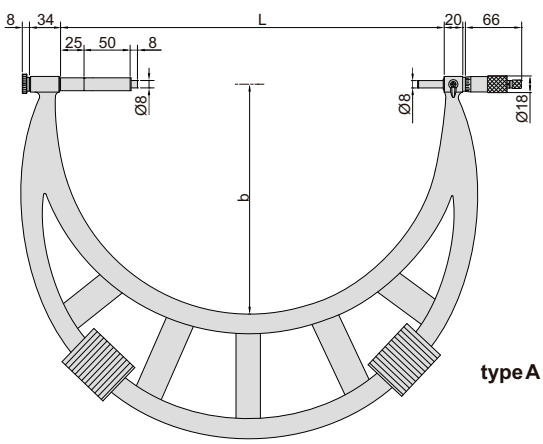
interchangeable anvils for different measuring ranges

OUTSIDE MICROMETER WITH EXTENSION ANVIL COLLAR

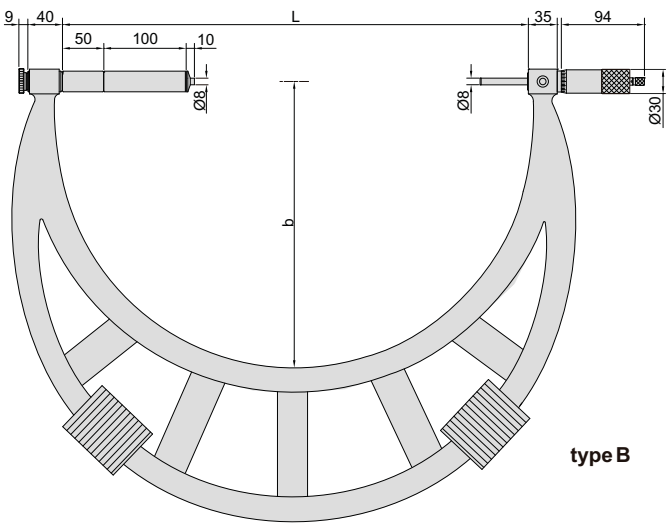


3205-400

Unit: mm

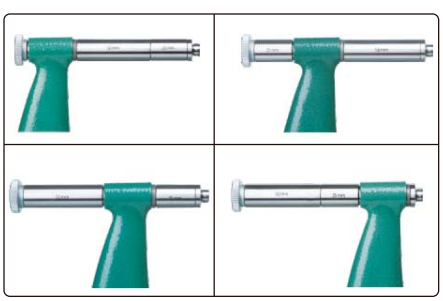


type A



type B

setting standard



adjust collars for different measuring ranges

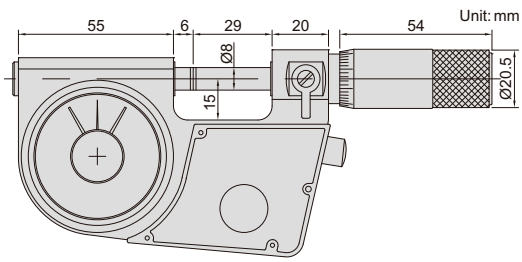
(mm)

Code	Range	Type	Accuracy	L	b	Setting standard (included)
3205-400	300-400mm	A	11μm	410	250	325, 375
3205-500	400-500mm	A	13μm	510	295	425, 475
3205-600	500-600mm	A	14μm	610	345	525, 575
3205-700	600-700mm	A	16μm	710	395	625, 675
3205-800	700-800mm	A	18μm	810	445	725, 775,
3205-900	800-900mm	A	20μm	910	495	825, 875
3205-1000	900-1000mm	A	22μm	1010	545	925, 975
3205-1200	1000-1200mm	B	22μm	1210	645	1050, 1150
3205-1400	1200-1400mm	B	24μm	1410	745	1250, 1350
3205-1600	1400-1600mm	B	28μm	1610	845	1450, 1550
3205-1800	1600-1800mm	B	31μm	1810	945	1650, 1750
3205-2000	1800-2000mm	B	34μm	2010	1045	1850, 1950

- Graduation 0.01mm
- Adjust collars for different measuring ranges
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards

INDICATING MICROMETER

3333-25



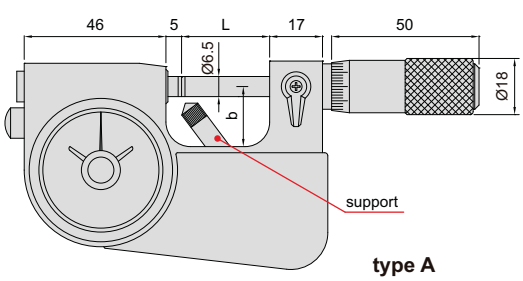
- Carbide measuring faces
- Measuring force 5-10N

Code	Micrometer head			Dial indicator		
	Range	Graduation	Accuracy	Range	Graduation	Accuracy
3333-25	0-25mm	0.01mm	2μm	±0.07mm	1μm	1μm

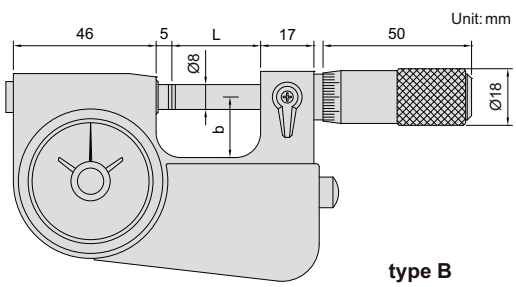
INDICATING MICROMETER

3332-25

3332-25B



type A



type B

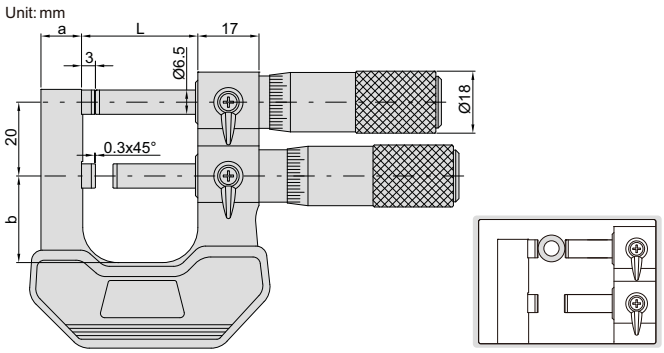
(mm)

Code	Micrometer head range	Micrometer head accuracy	Type	L	b	Remark
3332-25	0-25mm	4μm	A	28.5	19	with support
3332-50	25-50mm	4μm	A	53.5	30	with support
3332-75	50-75mm	5μm	A	78.5	45	without support
3332-100	75-100mm	5μm	A	103.5	57	without support
3332-25B	0-25mm	4μm	B	28.5	19	without support

- Micrometer head graduation: 0.002mm
- Dial indicator: range ±0.04mm, graduation 0.001mm, accuracy 0.001mm
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)

LIMIT MICROMETER

3235-25A



(mm)

Code	Range	Accuracy	L	a	b
3235-25A	0-25mm	4μm	32	12	24
3235-50A	25-50mm	4μm	57	15	32

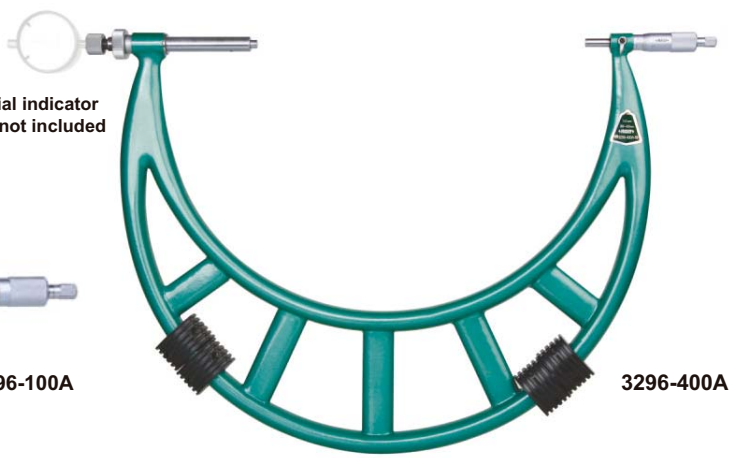
- Used as Go/No-Go gauge by setting upper and lower limits
- Graduation 0.002mm
- Carbide measuring faces
- Supplied with setting standard (except 0-25mm)

MICROMETER WITH DIAL INDICATOR

ATTENTION: NOT SUITABLE FOR 0.001MM INDICATORS

dial indicator is not included

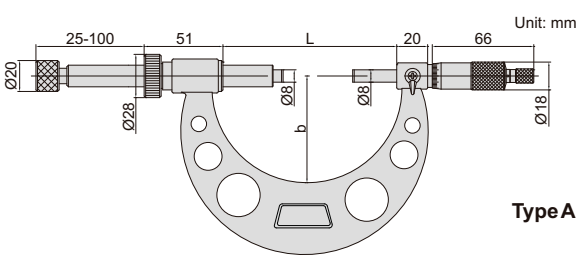
3296-100A



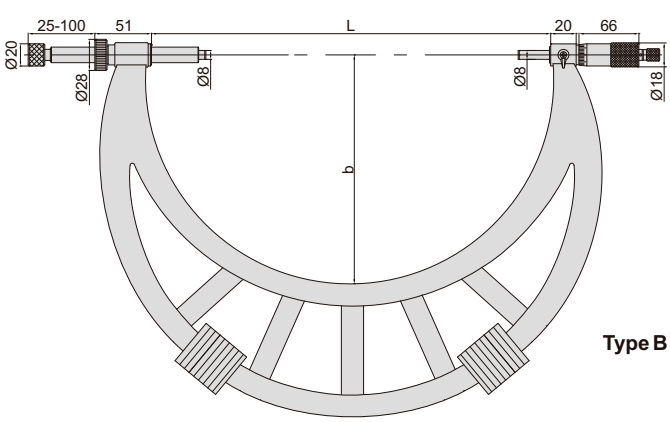
dial indicator is not included

3296-400A

- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory:
  dial indicators (graduation 0.01mm),
  digital indicators (resolution 0.01mm/0.0005")



Type A



Type B

(mm)

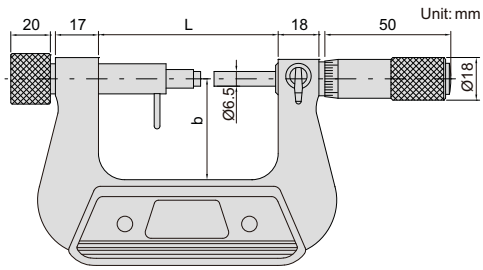
Code	Range	Type	Accuracy	L	b
3296-100A	0-100mm	A	6μm	115	68
3296-200A	100-200mm	A	7μm	215	120
3296-300A	200-300mm	A	8μm	315	170
3296-400A	300-400mm	B	9μm	415	225
3296-500A	400-500mm	B	10μm	515	275
3296-600A	500-600mm	B	11μm	615	325
3296-700A	600-700mm	B	12μm	715	375
3296-800A	700-800mm	B	13μm	815	430
3296-900A	800-900mm	B	14μm	915	480
3296-1000A	900-1000mm	B	15μm	1015	530

MICROMETER WITH DIAL INDICATOR

dial indicator
is not included

3331-25A

ATTENTION: NOT SUITABLE FOR 0.001MM INDICATORS



- Micrometer head graduation 0.01mm
- Anvil retracting range: 8mm
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)
- Optional accessory:
  dial indicators (graduation 0.01mm),
  digital indicators (resolution 0.01mm/0.0005")

(mm)

Code	Micrometer head range	Micrometer head accuracy	L	b
3331-25A	0-25mm	4μm	67	38
3331-50A	25-50mm	4μm	92.4	50
3331-75A	50-75mm	5μm	117.6	62
3331-100A	75-100mm	5μm	143	70
3331-125A	100-125mm	6μm	168.2	82
3331-150A	125-150mm	6μm	192	94.5
3331-175A	150-175mm	7μm	217	107

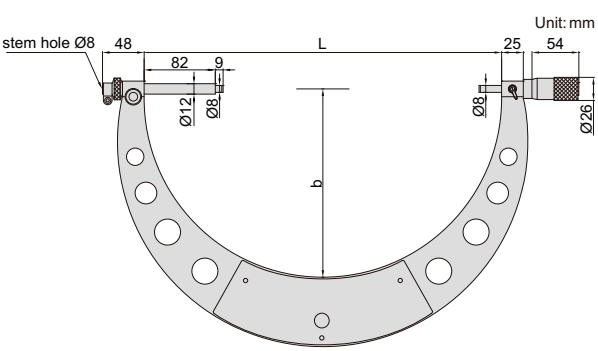
MICROMETER WITH DIAL INDICATOR

dial indicator
is not included

3633-300

ATTENTION: SETTING STANDARDS ARE NOT INCLUDED

PREMIUM QUALITY INSIZE PLUS MADE IN GERMANY



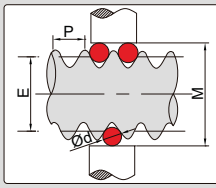
steel plate frame (0-400mm)

(mm)

Code	Range	Frame type	L	b
3633-100	0-100mm	steel plate	116	65
3633-200	100-200mm	steel plate	217	109
3633-300	200-300mm	steel plate	317	159
3633-400	300-400mm	steel plate	417	209
3633-500	400-500mm	steel tube	517	259
3633-600	500-600mm	steel tube	617	310
3633-700	600-700mm	steel tube	717	360
3633-800	700-800mm	steel tube	817	408
3633-900	800-900mm	steel tube	917	460
3633-1000	900-1000mm	steel tube	1017	512

- Micrometer head range: 25mm
- Micrometer head graduation: 0.01mm
- Adjust collars for different measuring ranges
- Anvil retracting range: 3mm
- Carbide measuring faces
- Optional accessory: dial indicators or digital indicators, setting standards

3-WIRES



Formula of pitch diameter E
E=M-3d+0.866025P
M=measured value of the micrometer
d=diameter of the pin gage (choose diameter of pin gage according to pitch: d=0.577P)
P=screw thread pitch
The formula is suitable for 60° screw

MANUFACTURER INSPECTION CERTIFICATE

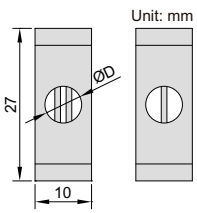
7382-19

For outside micrometers with spindle Ø6.35mm (ØD)

Code	Pin gage diameter (Ød)	Applicable Pitch
7382-11	0.170mm	0.25mm
7382-12	0.195mm	0.35mm
7382-13	0.220mm	0.35mm
7382-14	0.250mm	0.4mm
7382-15	0.290mm	0.45mm, 0.5mm
7382-16	0.335mm	0.6mm
7382-17	0.390mm	0.7mm
7382-18	0.455mm	0.7mm, 0.75mm, 0.8mm
7382-19	0.530mm	0.9mm
7382-110	0.620mm	1mm
7382-111	0.725mm	1.25mm
7382-112	0.895mm	1.5mm
7382-113	1.100mm	1.75mm
7382-114	1.350mm	2mm
7382-115	1.650mm	2.5mm
7382-116	2.050mm	3mm,3.5mm
7382-117	2.550mm	4mm,4.5mm
7382-118	3.200mm	5mm,5.5mm
7382-1S	18 pairs/set, including all above 3-wires	

For outside micrometers with spindle Ø6.50mm (ØD)

Code	Pin gage diameter (Ød)	Applicable Pitch
7382-21	0.170mm	0.25mm
7382-22	0.195mm	0.35mm
7382-23	0.220mm	0.35mm
7382-24	0.250mm	0.4mm
7382-25	0.290mm	0.45mm, 0.5mm
7382-26	0.335mm	0.6mm
7382-27	0.390mm	0.7mm
7382-28	0.455mm	0.7mm, 0.75mm, 0.8mm
7382-29	0.530mm	0.9mm
7382-210	0.620mm	1mm
7382-211	0.725mm	1.25mm
7382-212	0.895mm	1.5mm
7382-213	1.100mm	1.75mm
7382-214	1.350mm	2mm
7382-215	1.650mm	2.5mm
7382-216	2.050mm	3mm, 3.5mm
7382-217	2.550mm	4mm, 4.5mm
7382-218	3.200mm	5mm, 5.5mm
7382-2S	18 pairs/set, including all above 3-wires	



- Used with standard outside micrometers with spindle Ø6.35mm or Ø6.50mm to measure pitch diameter of screw threads
- Diameter accuracy: ±0.5μm
- Cylindricity: 1μm
- Hardness: HRC60
- Supplied with manufacturer inspection certificate

EXTERNAL SCREW THREAD MICROMETER

- Measure pitch diameter of screw thread
- Graduation 0.01mm
- Ratchet thimble
- Optional accessary: measuring tips for external screw thread micrometer (code **7384**)

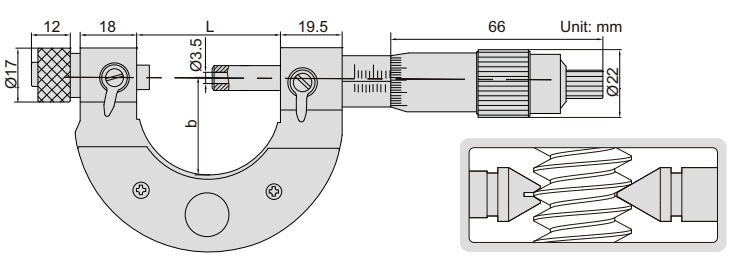
tips are not included

3639-25

PREMIUM QUALITY INSIZE PLUS MADE IN GERMANY

(mm)

Code	Range	Accuracy	L	b
3639-25	0-25mm	4μm	45	31
3639-50	25-50mm	4μm	70	35
3639-75	50-75mm	5μm	95	48.5
3639-100	75-100mm	5μm	120	60
3639-125	100-125mm	6μm	145	72.5
3639-150	125-150mm	6μm	170	80
3639-175	150-175mm	7μm	195	97.5
3639-200	175-200mm	7μm	220	110
3639-225	200-225mm	8μm	245	122

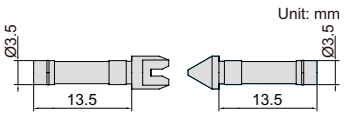


MEASURING TIPS FOR EXTERNAL SCREW THREAD MICROMETER

TIPS FOR TRAPEZOIDAL, ACME THREAD ARE ALSO AVAILABLE

- Supplied in pair
- Made of hardened steel
- Suitable for **3639** series

7384-T108



60° thread angle

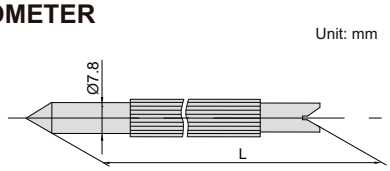
Code	Applicable pitch
7384-T101	0.2mm
7384-T102	0.225mm
7384-T103	0.25mm
7384-T104	0.3mm
7384-T105	0.35mm
7384-T106	0.4mm/0.45mm
7384-T107	0.5mm/0.6mm
7384-T108	0.7mm/0.75mm/0.8mm
7384-T109	1mm/1.25mm
7384-T110	1.5mm/1.75mm
7384-T111	2.0mm/2.5mm
7384-T112	3.0mm/3.5mm
7384-T113	4.0mm/4.5mm/5.0mm
7384-T114	5.5mm/6.0mm

55° thread angle

Code	Applicable pitch
7384-T201	80TPI
7384-T202	72TPI/64TPI
7384-T203	60TPI/48TPI
7384-T204	40TPI/32TPI
7384-T205	28TPI/26TPI/24TPI/22TPI
7384-T206	20TPI/19TPI/18TPI/16TPI
7384-T207	14TPI/12TPI/11TPI
7384-T208	10TPI/9TPI/8TPI
7384-T209	7TPI/6TPI
7384-T210	5TPI/4.5TPI/4TPI
7384-T211	3.5TPI/3.25TPI/3TPI/2.875TPI/2.75TPI
7384-T212	2.625TPI/2.5/2TPI

SETTING STANDARD FOR EXTERNAL SCREW THREAD MICROMETER

7384-A100



60° thread angle

Code	L	Accuracy
7384-A25	25mm	±1.5μm
7384-A50	50mm	±2μm
7384-A75	75mm	±2.5μm
7384-A100	100mm	±3μm
7384-A125	125mm	±3.5μm
7384-A150	150mm	±4μm
7384-A175	175mm	±4.5μm
7384-A200	200mm	±5μm
7384-A225	225mm	±5.5μm
7384-A250	250mm	±6μm
7384-A275	275mm	±6.5μm
7384-A300	300mm	±7μm

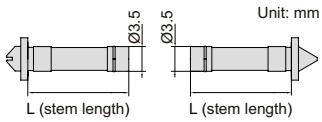
55° thread angle

Code	L	Accuracy
7384-B25	25mm	±1.5μm
7384-B50	50mm	±2μm
7384-B75	75mm	±2.5μm
7384-B100	100mm	±3μm
7384-B125	125mm	±3.5μm
7384-B150	150mm	±4μm
7384-B175	175mm	±4.5μm
7384-B200	200mm	±5μm
7384-B225	225mm	±5.5μm
7384-B250	250mm	±6μm
7384-B275	275mm	±6.5μm
7384-B300	300mm	±7μm

MEASURING TIPS FOR INTERNAL SCREW THREAD MICROMETER

- Supplied in pair
- Made of hardened steel
- Suitable for **3640**, **3641**series

TIPS FOR TRAPEZOIDAL, ACME THREAD ARE ALSO AVAILABLE



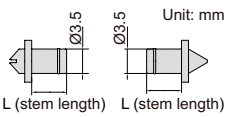
60° thread angle

Code		Applicable pitch
L=13.5mm	L=5mm	
7385-T101A	7385-T101B	0.35mm
7385-T102A	7385-T102B	0.4mm/0.45mm
7385-T103A	7385-T103B	0.5mm/0.6mm
7385-T104A	7385-T104B	0.7mm/0.75mm/0.8mm
7385-T105A	7385-T105B	1mm/1.25mm
7385-T106A	7385-T106B	1.5mm/1.75mm
7385-T107A	7385-T107B	2.0mm/2.5mm
7385-T108A	7385-T108B	3.0mm/3.5mm
7385-T109A	7385-T109B	4.0mm/4.5mm/5.0mm
7385-T110A	7385-T110B	5.5mm/6.0mm

55° thread angle

Code		Applicable pitch
L=13.5mm	L=5mm	
7385-T201A	7385-T201B	60/48TPI
7385-T202A	7385-T202B	40/32TPI
7385-T203A	7385-T203B	28/26/24/22TPI
7385-T204A	7385-T204B	20/19/18/16TPI
7385-T205A	7385-T205B	14/12/11TPI
7385-T206A	7385-T206B	10/9/8TPI
7385-T207A	7385-T207B	7/6TPI
7385-T208A	7385-T208B	5/4.5/4TPI
7385-T209A	7385-T209B	3.5/3.25/3/2.875/2.75TPI
7385-T210A	7385-T210B	2.625/2.5/2TPI

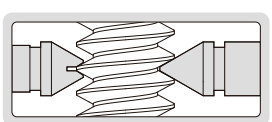
7385-T106A



7385-T106B

SCREW THREAD MICROMETER

NON-ROTATING SPINDLE

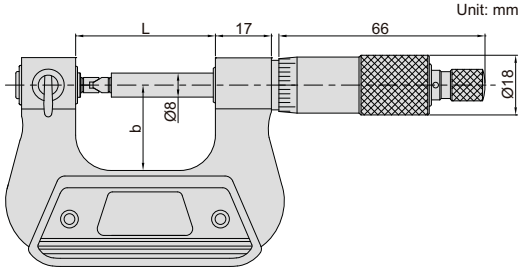


measuring tips are not included

3281-25A

- Measure pitch diameter of screw threads
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with 60° setting standards (except 0-25mm)
- Optional accessary: 55° setting standards (code **3281-SP**), measuring tips (code **7381**)

Unit: mm

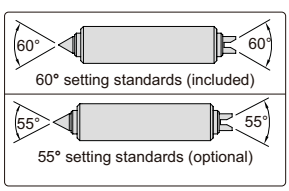


(mm)

Code	Range	L	b
3281-25A	0-25mm	42	26
3281-50A	25-50mm	67	38
3281-75A	50-75mm	92	50
3281-100A	75-100mm	117.6	62
3281-125A	100-125mm	143	70
3281-150A	125-150mm	168.2	82
3281-175A	150-175mm	192	94.5
3281-200A	175-200mm	217	107

accuracy of micrometer with tip (mm)

Pitch	Range					
	0-25	25-50	50-75	75-100	100-125	125-200
0.4~0.5	±0.01	–	–	–	–	–
0.6~0.8	±0.01	±0.013	–	–	–	–
1~1.25	±0.012	±0.015	±0.017	±0.017	–	–
1.5~2.0	±0.014	±0.017	±0.019	±0.019	±0.020	±0.023
2.5~3.5	±0.016	±0.019	±0.021	±0.021	±0.023	±0.025
4.0~7.0	–	±0.021	±0.023	±0.023	±0.025	±0.028



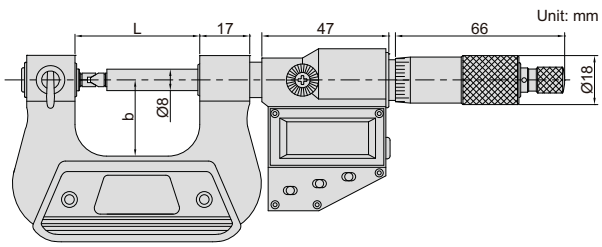
DIGITAL SCREW THREAD MICROMETER

measuring tips are not included

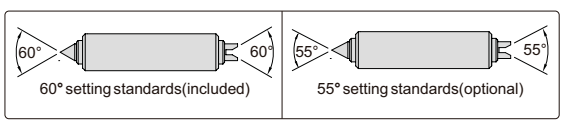
3581-25A

DATA OUTPUT

NON-ROTATING SPINDLE

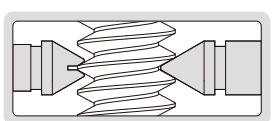


- Measure pitch diameter of screw threads
- Resolution 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Non- rotating spindle
- Ratchet stop
- Supplied with 60° setting standards (except 0-25mm/0-1")
- Optional accessary: 55° setting standards (code **3281-SP**), measuring tips (code **7381**), data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)



(mm)

Code	Range	L	b
3581-25A	0-25mm/0-1"	42	26
3581-50A	25-50mm/1-2"	67	38
3581-75A	50-75mm/2-3"	92	50
3581-100A	75-100mm/3-4"	117.6	62



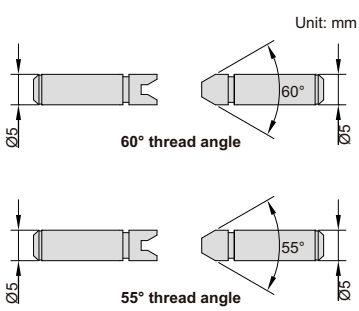
accuracy of micrometer with tip (mm)

Pitch	Range			
	0-25	25-50	50-75	75-100
0.4~0.5	±0.01	–	–	–
0.6~0.8	±0.01	±0.013	–	–
1~1.25	±0.012	±0.015	±0.017	±0.017
1.5~2.0	±0.014	±0.017	±0.019	±0.019
2.5~3.5	±0.016	±0.019	±0.021	±0.021
4.0~7.0	–	±0.021	±0.023	±0.023

MEASURING TIPS FOR SCREW THREAD MICROMETER

7381-T11

- Supplied in pair
- Suitable for **3281, 3581** series



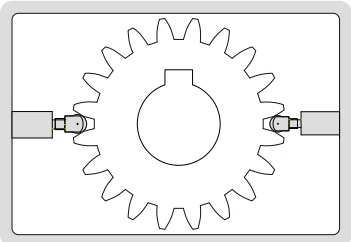
Metric and unified thread (60° thread angle)

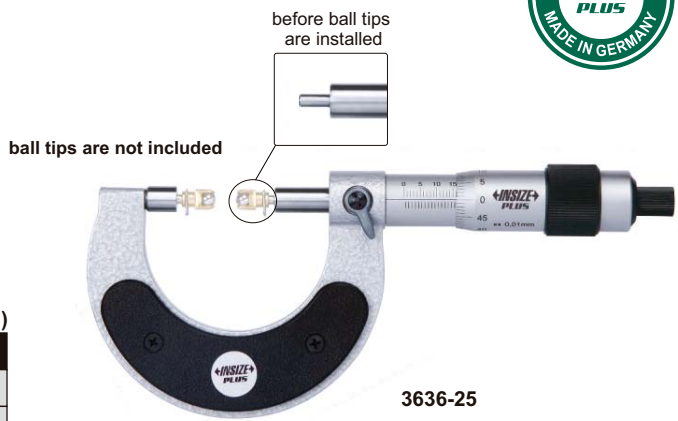
Code	Pitch
7381-T11	0.4-0.5mm/ 64-48TPI
7381-T12	0.6-0.9mm/ 44-28TPI
7381-T13	1-1.75mm/ 24-14TPI
7381-T14	2-3mm/ 13-9TPI
7381-T15	3.5-5mm/ 8-5TPI
7381-T16	5.5-7mm/ 4.5-3.5TPI
7381-TS	6 pairs/set, including all above tips

Whitworth thread (55° thread angle)

Code	Pitch
7381-T21	60-48TPI
7381-T22	48-40TPI
7381-T23	40-32TPI
7381-T24	32-24TPI
7381-T25	24-18TPI
7381-T26	18-14TPI
7381-T27	14-10TPI
7381-T28	10-7TPI
7381-T29	7-4.5TPI
7381-T210	4.5-3.5TPI
7381-T2S	10 pairs/set, including all above tips

EXTERNAL GEAR TOOTH MICROMETER

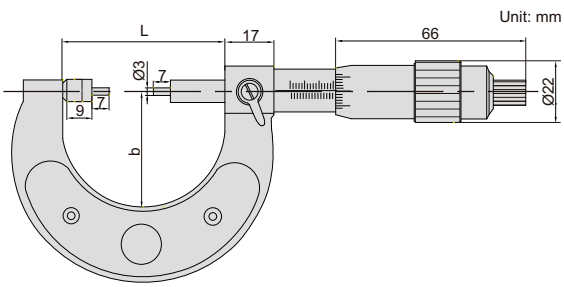




3636-25

(mm)

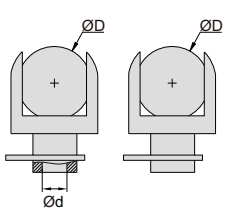
Code	Range	Accuracy	L	b
3636-25	0-25mm	4μm	56	40
3636-50	25-50mm	4μm	81.5	52
3636-75	50-75mm	5μm	106.5	64.5
3636-100	75-100mm	5μm	131.5	76
3636-125	100-125mm	6μm	156.5	88.5
3636-150	125-150mm	6μm	181.5	100
3636-175	150-175mm	7μm	242.5	121.5
3636-200	175-200mm	7μm	242.5	121.5
3636-225	200-225mm	8μm	267.5	134
3636-250	225-250mm	8μm	292.5	146.5
3636-275	250-275mm	9μm	318	159
3636-300	275-300mm	9μm	342.5	171.5
3636-325	300-325mm	10μm	367.5	184
3636-350	325-350mm	10μm	392.5	196.5
3636-375	350-375mm	11μm	417.5	209



- Measure over-pin diameter of gears
- Graduation 0.01mm
- Ratchet stop
- Optional accessary: ball tips (code **7383**)

BALL TIPS FOR GEAR TOOTH MICROMETER

7383-8



- Supplied in pair
- Made of hardened special steel
- Suitable for **3636**, **3637**, **3638** series

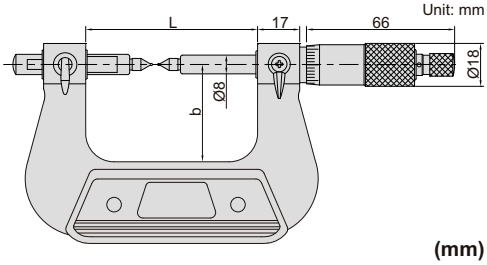
Code	Ball dia.(D)	Accuracy of D	d
7383-1	SØ1mm	±1μm	Ø3mm
7383-2	SØ2mm	±1μm	Ø3mm
7383-3	SØ3mm	±1μm	Ø3mm
7383-4	SØ4mm	±1μm	Ø3mm
7383-5	SØ5mm	±1μm	Ø3mm
7383-6	SØ6mm	±1μm	Ø3mm
7383-7	SØ7mm	±1μm	Ø3mm
7383-8	SØ8mm	±1μm	Ø3mm

Code	Ball dia.(D)	Accuracy of D	d
7383-9	SØ9mm	±1μm	Ø3mm
7383-10	SØ10mm	±1μm	Ø3mm
7383-11	SØ11mm	±1μm	Ø3mm
7383-12	SØ12mm	±1μm	Ø3mm
7383-13	SØ13mm	±1μm	Ø3mm
7383-14	SØ14mm	±1μm	Ø3mm
7383-15	SØ15mm	±1μm	Ø3mm
7383-16	SØ16mm	±1μm	Ø3mm

GEAR TOOTH MICROMETER

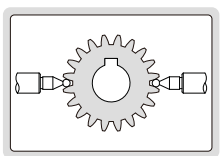
ball tips are not included

3291-25



Unit: mm

- Measure over-pin diameter of gears
- Graduation 0.01mm
- Ratchet stop
- Supplied with setting standards (except 0-25mm)
- Optional accessary: ball tips (code **7391**)



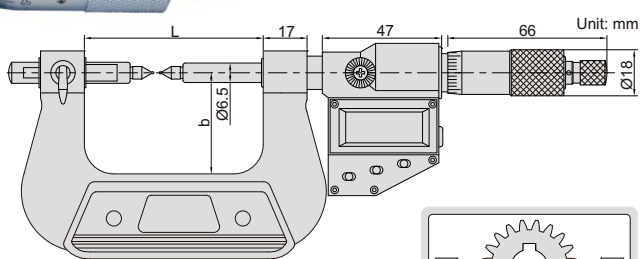
(mm)

Code	Range	Accuracy	L	b
3291-25	0-25mm	4μm	67	38
3291-50	25-50mm	4μm	92.4	50
3291-75	50-75mm	5μm	117.6	62
3291-100	75-100mm	5μm	143	70
3291-125	100-125mm	6μm	168.2	82
3291-150	125-150mm	6μm	192	94.5
3291-175	150-175mm	7μm	217	107

DIGITAL GEAR TOOTH MICROMETER

ball tips are not included

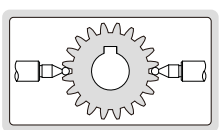
3591-25A



Unit: mm

DATA OUTPUT

IP54 WATERPROOF



- Measure over-pin diameter of gears
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessary: ball tips (code **7391**), data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

(mm)

Code	Range	Accuracy	L	b
3591-25A	0-25mm/0-1"	±4μm	67	38
3591-50A	25-50mm/1-2"	±4μm	92.4	50
3591-75A	50-75mm/2-3"	±5μm	117.6	62
3591-100A	75-100mm/3-4"	±5μm	143	70

BALL TIPS FOR GEAR TOOTH MICROMETER

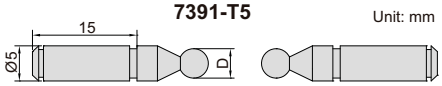
Code	Ball dia.(D)
7391-T1	SØ1mm
7391-T2	SØ1.5mm
7391-T3	SØ2.0mm
7391-T4	SØ2.5mm
7391-T5	SØ3.0mm
7391-T6	SØ3.5mm

- Supplied in pair
- Suitable for **3291, 3591** series

Code	Ball dia.(D)
7391-T7	SØ4.0mm
7391-T8	SØ4.5mm
7391-T9	SØ5.0mm
7391-T10	SØ6.0mm
7391-TS	10 pairs/set, including all above tips

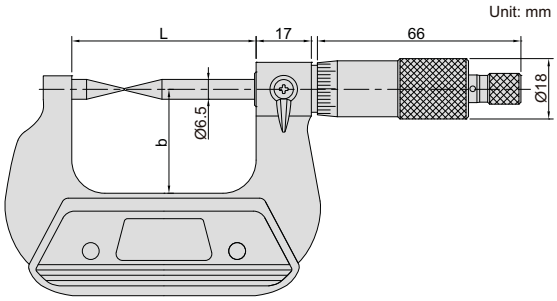
7391-T5

Unit: mm



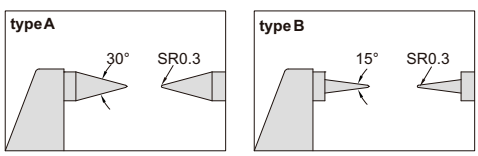
POINT MICROMETER

3230-25A



(mm)

Code	Range	Type	Accuracy	L	b
3230-25A	0-25mm	A	4μm	57	32
3230-50A	25-50mm	A	4μm	82	44.5
3230-75A	50-75mm	A	5μm	107	57
3230-100A	75-100mm	A	5μm	132.6	69.5
3230-25BA	0-25mm	B	4μm	57	32
3230-50BA	25-50mm	B	4μm	82	44.5
3230-75BA	50-75mm	B	5μm	107	57
3230-100BA	75-100mm	B	5μm	132.6	69.5



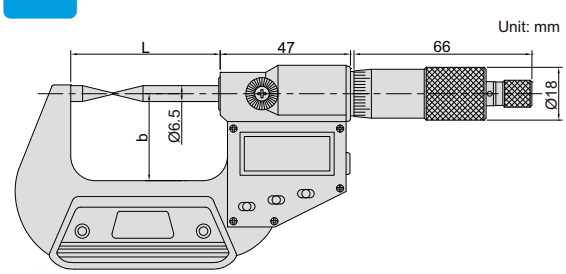
- Measure the web thickness of drills, small grooves and keyways
- Graduation 0.01mm
- Ratchet stop
- Carbide tips
- Supplied with setting standards (except 0-25mm)

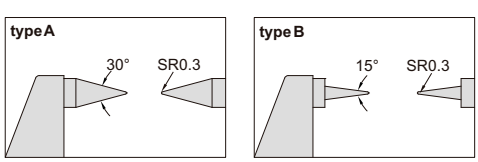
DIGITAL POINT MICROMETER

IP54 WATERPROOF

DATA OUTPUT

3530-25A





(mm)

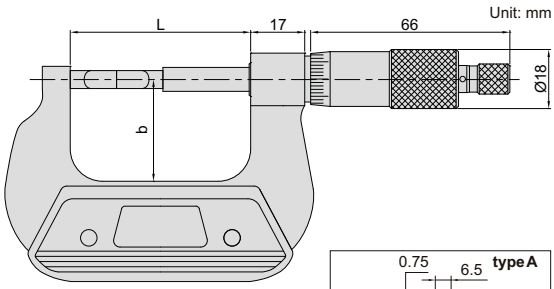
Code	Range	Type	Accuracy	L	b
3530-25A	0-25mm/0-1"	A	±4μm	57	32
3530-50A	25-50mm/1-2"	A	±4μm	82	44.5
3530-75A	50-75mm/2-3"	A	±5μm	107	57
3530-100A	75-100mm/3-4"	A	±5μm	132.6	69.5
3530-25BA	0-25mm/0-1"	B	±4μm	57	32
3530-50BA	25-50mm/1-2"	B	±4μm	82	44.5
3530-75BA	50-75mm/2-3"	B	±5μm	107	57
3530-100BA	75-100mm/3-4"	B	±5μm	132.6	69.5

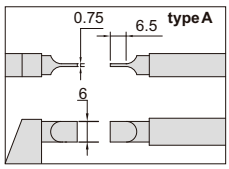
- Measure the web thickness of drills, small grooves and keyways
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide tips
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

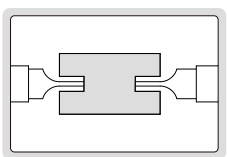
BLADE MICROMETER

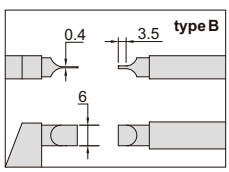
NON-ROTATING SPINDLE

3232-25A









(mm)

Code	Range	Type	Accuracy	L	b
3232-25A	0-25mm	A	4μm	57	32
3232-50A	25-50mm	A	4μm	82	44.5
3232-75A	50-75mm	A	5μm	107	57
3232-100A	75-100mm	A	5μm	132.6	69.5
3232-125A	100-125mm	A	6μm	158	82
3232-150A	125-150mm	A	6μm	183.4	94.5
3232-175A	150-175mm	A	7μm	208.8	107
3232-25BA	0-25mm	B	4μm	57	32
3232-50BA	25-50mm	B	4μm	82	44.5

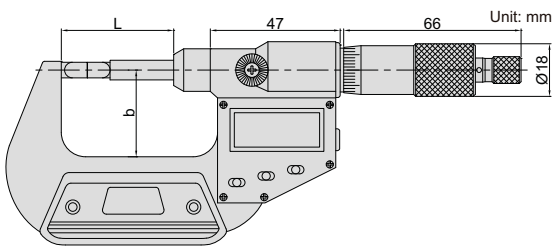
- Measure the groove diameter of shafts and keyways
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with setting standards (except 0-25mm)

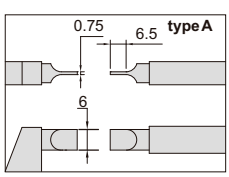
DIGITAL BLADE MICROMETER

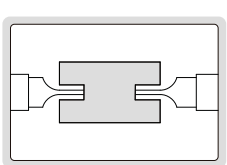
DATA OUTPUT

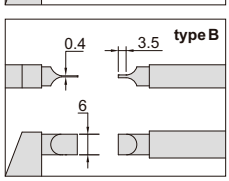
NON-ROTATING SPINDLE

3532-25A









(mm)

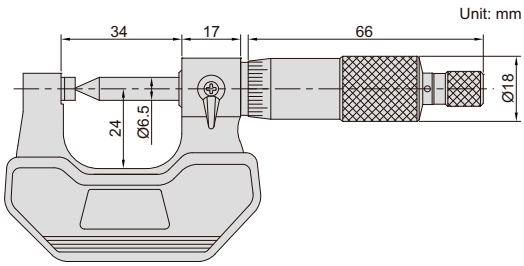
Code	Range	Type	Accuracy	L	b
3532-25A	0-25mm/0-1"	A	±4μm	57	32
3532-50A	25-50mm/1-2"	A	±4μm	82	44.5
3532-75A	50-75mm/2-3"	A	±5μm	107	57
3532-100A	75-100mm/3-4"	A	±5μm	132.6	69.5
3532-25BA	0-25mm/0-1"	B	±4μm	57	32
3532-50BA	25-50mm/1-2"	B	±4μm	82	44.5

- Measure the groove diameter of shafts and keyways
- Resolution 0.001mm/0.00005"
- Non-rotating spindle
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

CRIMP HEIGHT MICROMETER

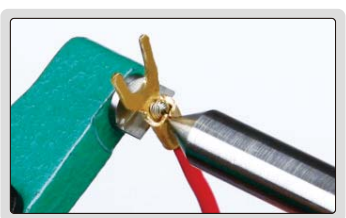
RELATIVE PRODUCT:
DIGITAL CRIMP HEIGHT CALIPER
(CODE 1165-150A)

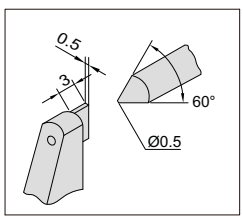
3266-25BA



- Measure the height of crimp contact
- Graduation 0.01mm
- Ratchet stop

Code	Range	Accuracy
3266-25BA	0-25mm	4μm





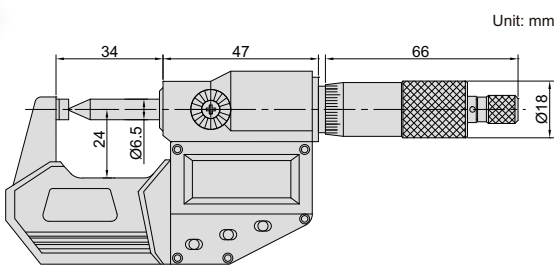
DIGITAL CRIMP HEIGHT MICROMETER

RELATIVE PRODUCT:
DIGITAL CRIMP HEIGHT CALIPER
(CODE 1165-150A)

IP54
WATERPROOF

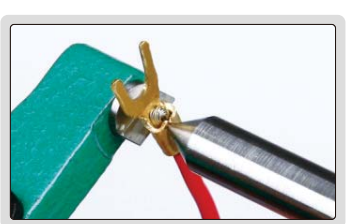
DATA
OUTPUT

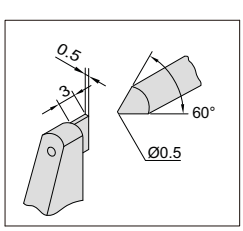
3566-25BA



- Measure the height of crimp contact
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

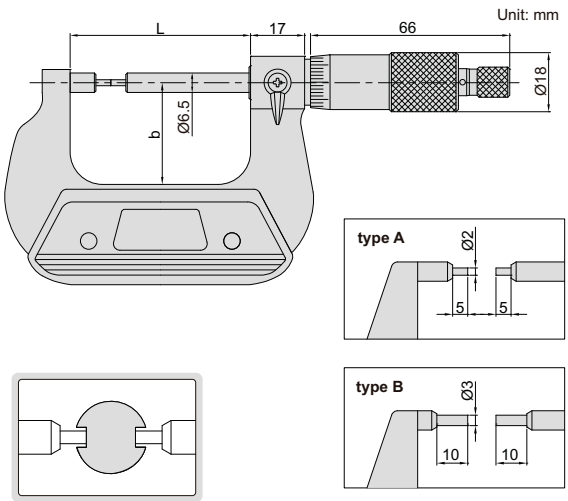
Code	Range	Accuracy
3566-25BA	0-25mm/0-1"	±4μm





SPLINE MICROMETER

3233-25BA



(mm)

Code	Range	Type	Accuracy	L	b
3233-25A	0-25mm	A	4µm	57	32
3233-25BA	0-25mm	B	4µm	57	32
3233-50BA	25-50mm	B	4µm	82	44.5
3233-75BA	50-75mm	B	5µm	107	57
3233-100BA	75-100mm	B	5µm	132.6	69.5
3233-125BA	100-125mm	B	6µm	158	82
3233-150BA	125-150mm	B	6µm	183.4	94.5
3233-175BA	150-175mm	B	7µm	208.8	107

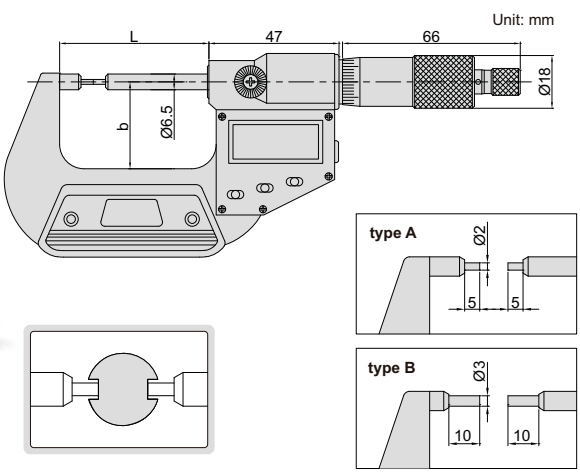
- Measure splined shafts, slots and keyways
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)

DIGITAL SPLINE MICROMETER

IP54 WATERPROOF

DATA OUTPUT

3533-25BA



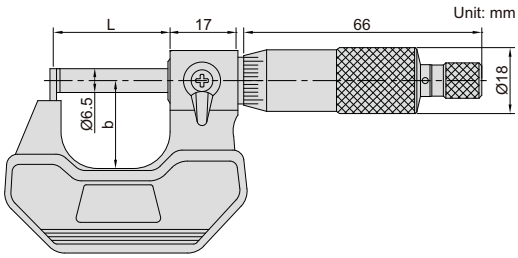
(mm)

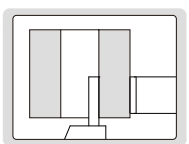
Code	Range	Type	Accuracy	L	b
3533-25A	0-25mm/0-1"	A	±4µm	57	32
3533-50A	25-50mm/1-2"	A	±4µm	82	44.5
3533-75A	50-75mm/2-3"	A	±5µm	107	57
3533-100A	75-100mm/3-4"	A	±5µm	132.6	69.5
3533-25BA	0-25mm/0-1"	B	±4µm	57	32
3533-50BA	25-50mm/1-2"	B	±4µm	82	44.5
3533-75BA	50-75mm/2-3"	B	±5µm	107	57
3533-100BA	75-100mm/3-4"	B	±5µm	132.6	69.5

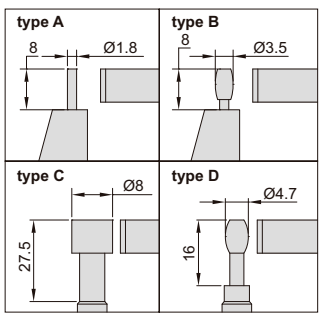
- Measure splined shafts, slots and keyways
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

CYLINDRICAL ANVIL TUBE MICROMETER

3261-25A







(mm)

Code	Range	Type	Accuracy	L	b
3261-25A	0-25mm	A	6μm	31	24
3261-50A	25-50mm	A	6μm	57	32
3261-25BA	0-25mm	B	6μm	31	24
3261-50BA	25-50mm	B	6μm	57	32
3261-25CA	0-25mm	C	6μm	31	24
3261-25DA	0-25mm	D	6μm	31	24

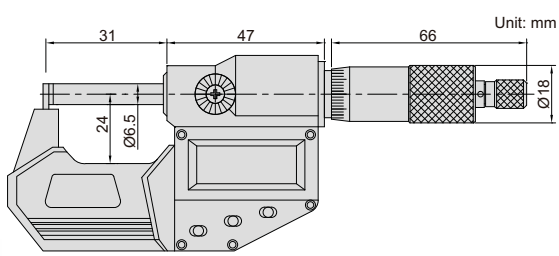
- Measure wall thickness of tubes
- Graduation 0.01mm
- Ratchet stop
- Carbide spindle tip
- Supplied with setting standards (except 0-25mm)

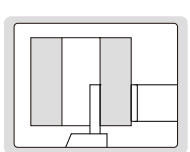
DIGITAL CYLINDRICAL ANVIL TUBE MICROMETER

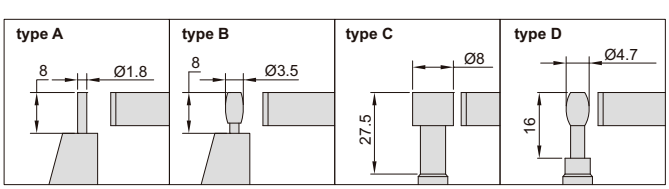
DATA OUTPUT

IP54 WATERPROOF

3561-25A







Code	Range	Type	Accuracy
3561-25A	0-25mm/0-1"	A	±6μm
3561-25BA	0-25mm/0-1"	B	±6μm
3561-25CA	0-25mm/0-1"	C	±6μm
3561-25DA	0-25mm/0-1"	D	±6μm

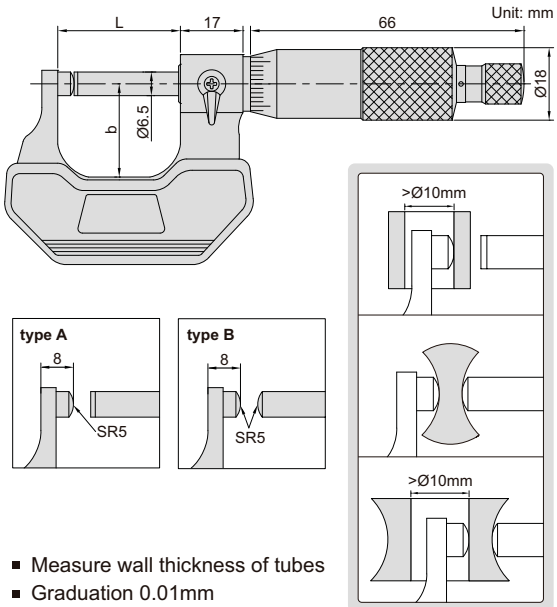
- Measure wall thickness of tubes
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide spindle tip
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

SPHERICAL ANVIL TUBE MICROMETER

3260-25A

(mm)

Code	Range	Type	Accuracy	L	b
3260-25A	0-25mm	A	4μm	32	24
3260-50A	25-50mm	A	4μm	57	32
3260-75A	50-75mm	A	5μm	82	44.5
3260-100A	75-100mm	A	5μm	107	57
3260-25SA	0-25mm	B	4μm	32	24
3260-50SA	25-50mm	B	4μm	57	32
3260-75SA	50-75mm	B	5μm	82	44.5
3260-100SA	75-100mm	B	5μm	107	57



- Measure wall thickness of tubes
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)

DATA OUTPUT

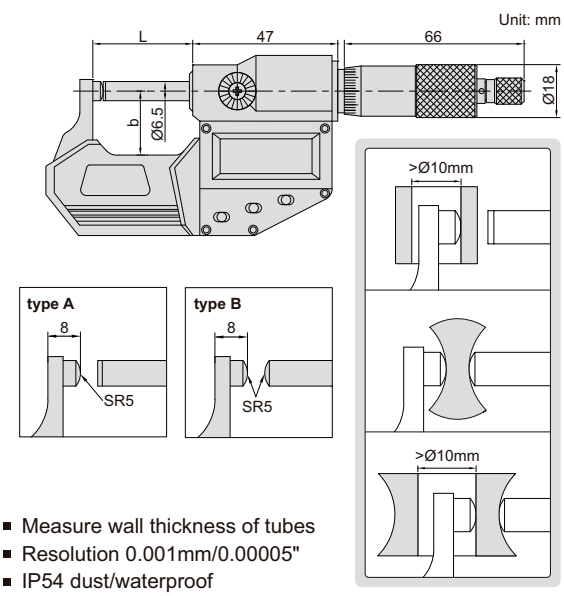
IP54 WATERPROOF

DIGITAL SPHERICAL ANVIL TUBE MICROMETER

3560-25A

(mm)

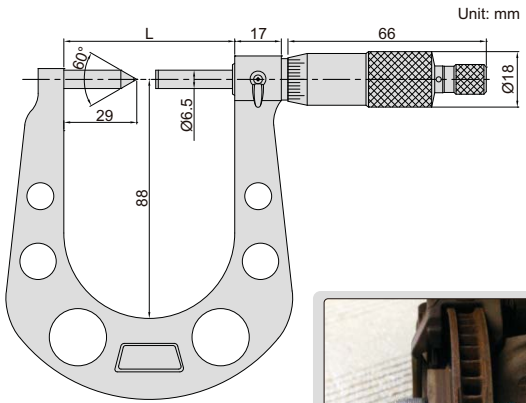
Code	Range	Type	Accuracy	L	b
3560-25A	0-25mm/0-1"	A	±4μm	32	24
3560-50A	25-50mm/1-2"	A	±4μm	57	32
3560-75A	50-75mm/2-3"	A	±5μm	82	44.5
3560-100A	75-100mm/3-4"	A	±5μm	107	57
3560-25SA	0-25mm/0-1"	B	±4μm	32	24
3560-50SA	25-50mm/1-2"	B	±4μm	57	32
3560-75SA	50-75mm/2-3"	B	±5μm	82	44.5
3560-100SA	75-100mm/3-4"	B	±5μm	107	57



- Measure wall thickness of tubes
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

DISK BRAKE MICROMETER

RELATIVE PRODUCT:
DIGITAL DISK BRAKE AND PAD CALIPER
DIGITAL DRUM BRAKE CALIPER
(CODE 1162-150A, 1167-150A, 1168-300A)



3288-33A

(mm)

Code	Range	Accuracy	L
3288-33A	7.6-33mm	5μm	64.5
3288-50A	25-50mm	5μm	82

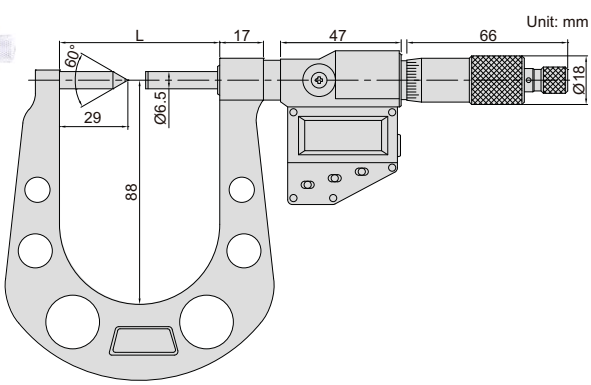
- Measure thickness of disk brakes
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards

DIGITAL DISK BRAKE MICROMETER

DATA OUTPUT

IP54 WATERPROOF

RELATIVE PRODUCT:
DIGITAL DISK BRAKE AND PAD CALIPER
DIGITAL DRUM BRAKE CALIPER
(CODE 1162-150A, 1167-150A, 1168-300A)



3588-33A

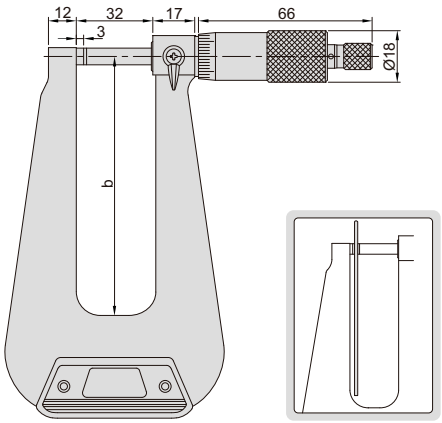
(mm)

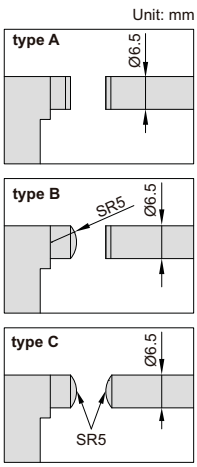
Code	Range	Accuracy	L
3588-33A	7.6-33mm/0.3-1.3"	±5μm	64.5
3588-50A	25-50mm/1-2"	±5μm	82

- Measure thickness of disk brakes
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

SHEET METAL MICROMETER

3239-253





(mm)

Code	Range	Type	Accuracy	b
3239-253	0-25mm	A	5µm	155
3239-253F	0-25mm	B	5µm	155
3239-254F	0-25mm	B	6µm	310
3239-253S	0-25mm	C	5µm	155

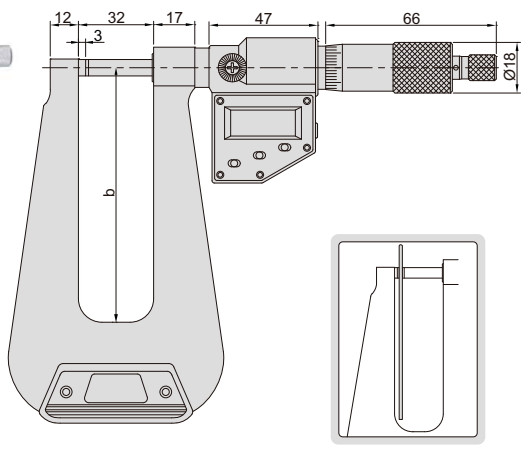
- Deep frame suitable for sheet metal, paper and plastic
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces

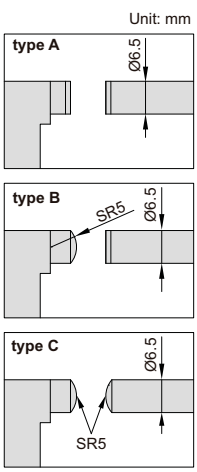
DATA OUTPUT

IP54 WATERPROOF

DIGITAL SHEET METAL MICROMETER

3539-253A





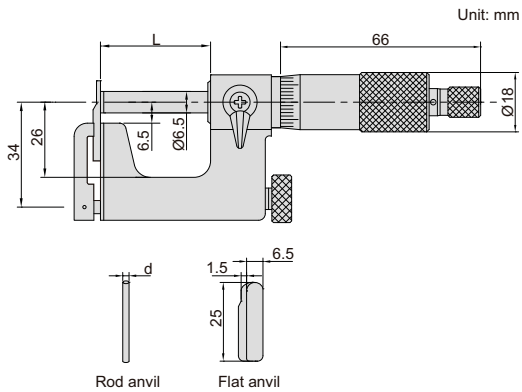
(mm)

Code	Range	Type	Accuracy	b
3539-253A	0-25mm/0-1"	A	±5µm	155
3539-253FA	0-25mm/0-1"	B	±5µm	155
3539-254FA	0-25mm/0-1"	B	±6µm	310
3539-253SA	0-25mm/0-1"	C	±5µm	155

- Deep frame suitable for sheet metal, paper and plastic
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

INTERCHANGEABLE ANVIL MICROMETER

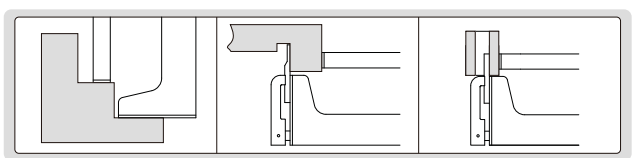
3262-25A



- Measure tube thickness, shoulder edge distance, rivet head height, etc.
- Supplied with flat anvil and rod anvil
- Graduation 0.01mm
- Ratchet stop
- Carbide spindle tip
- Setting standards are included (except 0-25mm)

(mm)

Code	Range	Accuracy	L	d
3262-25A	0-25mm	4μm	28.5	Ø3
3262-50A	25-50mm	4μm	53.5	Ø5

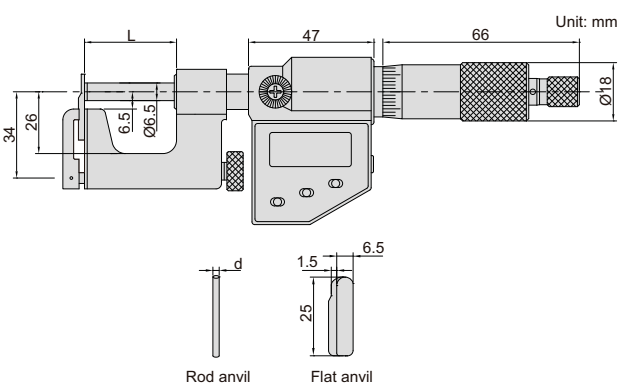


DIGITAL INTERCHANGEABLE ANVIL MICROMETER

DATA OUTPUT

IP54 WATERPROOF

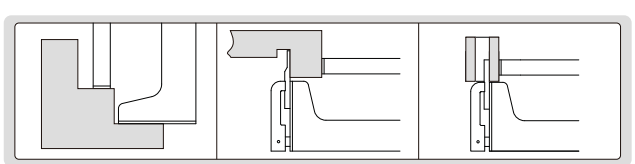
3562-25A



- Measure tube thickness, shoulder edge distance, rivet head height, etc.
- Supplied with flat anvil and rod anvil
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide spindle tip
- Setting standards are included (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

(mm)

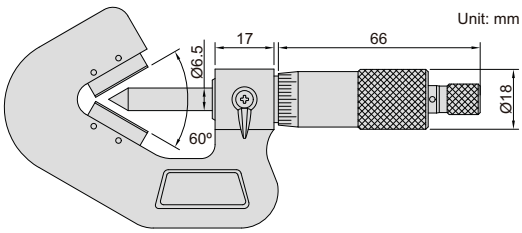
Code	Range	Accuracy	L	d
3562-25A	0-25mm/0-1"	±4μm	28.5	Ø3
3562-50A	25-50mm/1-2"	±4μm	53.5	Ø5



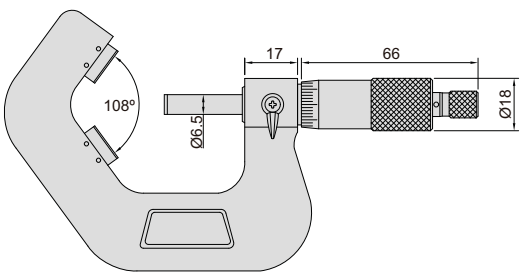
V-ANVIL MICROMETER

3290-153A

Code	Range	Flutes	Accuracy
3290-153A	1-15mm	3	4μm
3290-203A	5-20mm	3	4μm
3290-353A	20-35mm	3	5μm
3290-503A	35-50mm	3	5μm
3290-653A	50-65mm	3	6μm
3290-803A	65-80mm	3	6μm
3290-953A	80-95mm	3	7μm
3290-255A	5-25mm	5	4μm
3290-455A	25-45mm	5	5μm
3290-655A	45-65mm	5	6μm
3290-855A	65-85mm	5	7μm



3 flutes



5 flutes

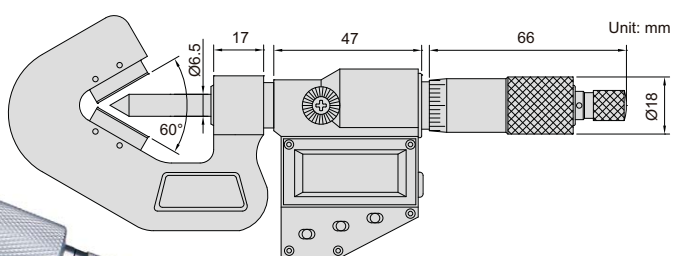
- Measure the outside diameter of cutting tools (such as taps, reamers, end mills) with 3 or 5 flutes
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards

DIGITAL V-ANVIL MICROMETER

DATA OUTPUT

IP54 WATERPROOF

3590-153A



Code	Range	Flutes	Accuracy
3590-153A	1-15mm/0.04-0.6"	3	±4μm
3590-203A	5-20mm/0.2-0.8"	3	±4μm
3590-353A	20-35mm/0.8-1.4"	3	±5μm
3590-503A	35-50mm/1.4-2.0"	3	±5μm

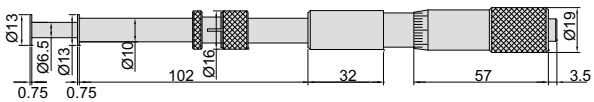
- Measure the outside diameter of cutting tools (such as taps, reamers, end mills) with 3 flutes
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

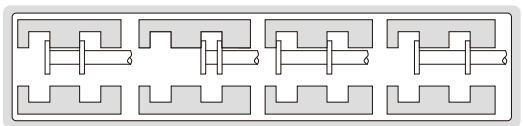
GROOVE MICROMETER

- Graduation 0.01mm
- Measure width of grooves inside bores
- Non-rotating spindle
- Two graduations for inside and outside measurement

3287-25A

Unit: mm





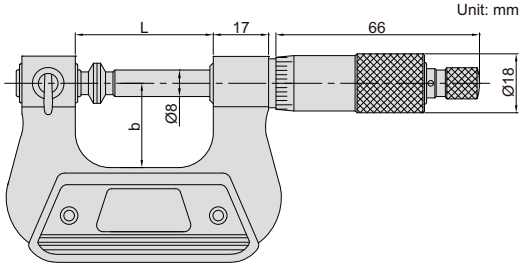
Code	Range (outside)	Range (inside)	Accuracy
3287-25A	0-25mm	1.6-26.5mm	10μm
3287-50A	25-50mm	26.5-51.5mm	10μm
3287-75A	50-75mm	51.5-76.5mm	10μm
3287-100A	75-100mm	76.5-101.5mm	10μm

NON ROTATING SPINDLE UNIVERSAL MICROMETER

NON-ROTATING SPINDLE

3280-25A

Unit: mm

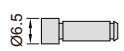
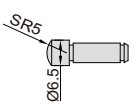
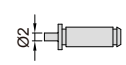
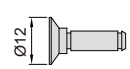
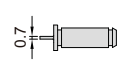
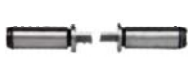
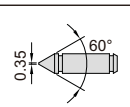
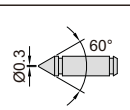


- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with 7 pairs of anvil/spindle tip
- Setting standards are included (except 0-25mm)
- Optional accessary: 55° anvil/spindle tip (code **3280-SP1** and **3280-SP2**)

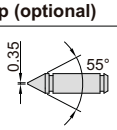
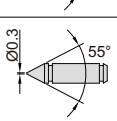
(mm)

Code	Range	Accuracy	L	b
3280-25A	0-25mm	4μm	42	26
3280-50A	25-50mm	4μm	67	38

Anvil/spindle tip (included) Unit: mm

Flat		
Spherical		
Spline		
Disk		
Blade		
Knife-edge		
Point		

55° anvil/spindle tip (optional)

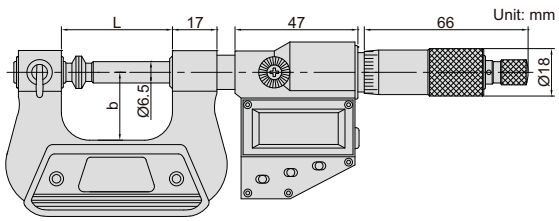
Code **3280-SP1** Knife-edge		
Code **3280-SP2** Point		

DIGITAL UNIVERSAL MICROMETER

DATA OUTPUT

IP54 WATERPROOF

- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Supplied with 7 pairs of anvil/spindle tip (same as series **3280**)
- Setting standards are included (except 0-25mm/0-1")
- Optional accessary: 55° anvil/spindle tip code **3280-SP1** and **3280-SP2** (same as series **3280**), data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)



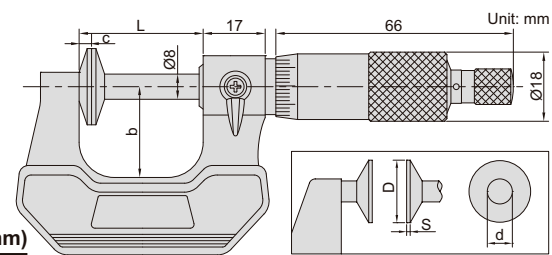
3580-25A

(mm)

Code	Range	Accuracy	L	b
3580-25A	0-25mm/0-1"	±4μm	42	26
3580-50A	25-50mm/1-2"	±4μm	67	38

DISK MICROMETER

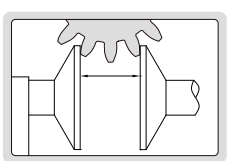
3282-25



(mm)

Code	Range	Accuracy	Parallelism	L	b	c	D	S	d
3282-25	0-25mm	4μm	5μm	34	24	3.3	Ø20	0.7	Ø8
3282-50	25-50mm	4μm	5μm	59	32	3.3	Ø20	0.7	Ø8
3282-75	50-75mm	5μm	5μm	85	45	3.3	Ø20	0.7	Ø8
3282-100	75-100mm	5μm	5μm	110	57	3.3	Ø20	0.7	Ø8

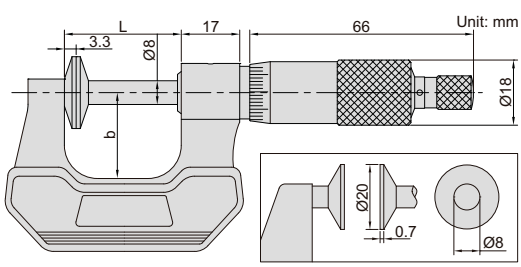
- Measure root tangent length of gear
- Graduation 0.01mm
- Ratchet stop
- Supplied with setting standards



NON ROTATING SPINDLE DISK MICROMETER

3294-25

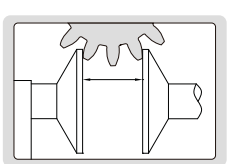
NON-ROTATING SPINDLE



(mm)

Code	Range	Accuracy	Parallelism	L	b
3294-25	0-25mm	4μm	5μm	34	24
3294-50	25-50mm	4μm	5μm	59	32
3294-75	50-75mm	5μm	5μm	85	45
3294-100	75-100mm	5μm	5μm	110	57

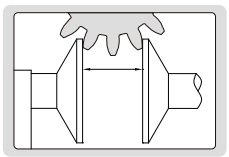
- Measure root tangent length of gear
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with setting standards



DIGITAL NON ROTATING SPINDLE DISK MICROMETER

DATA OUTPUT

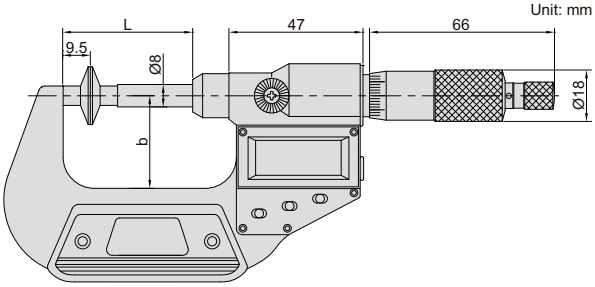
NON-ROTATING SPINDLE



- Measure root tangent length of gear
- Resolution 0.001mm/0.00005"
- Non-rotating spindle
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Supplied with setting standards
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

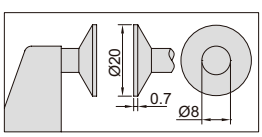
3594-25A

Unit: mm



(mm)

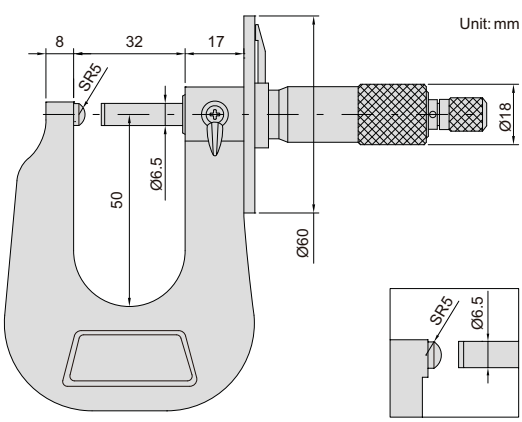
Code	Range	Accuracy	Parallelism	L	b
3594-25A	0-25mm/0-1"	±4μm	5μm	43	32
3594-50A	25-50mm/1-2"	±4μm	5μm	68	44.5
3594-75A	50-75mm/2-3"	±5μm	5μm	93	57
3594-100A	75-100mm/3-4"	±5μm	5μm	118.5	70



SHEET METAL MICROMETER

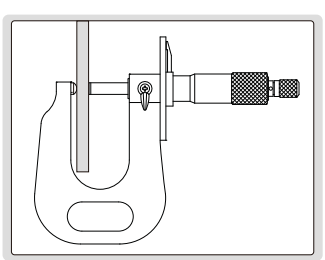
3263-25A

Unit: mm



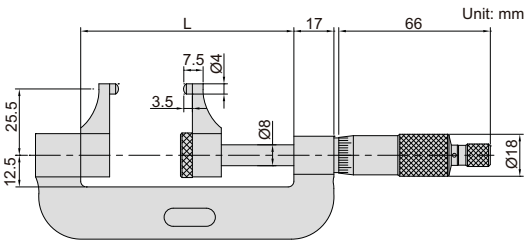
Code	Range	Accuracy
3263-25A	0-25mm	4μm

- Measure thickness of sheet metal, paper, plastic and rubber parts
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces



CALIPER TYPE MICROMETER

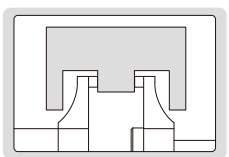
3238-25



(mm)

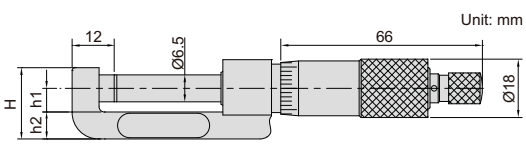
Code	Range	Accuracy	L
3238-25	0-25mm	5μm	56
3238-50	25-50mm	6μm	81

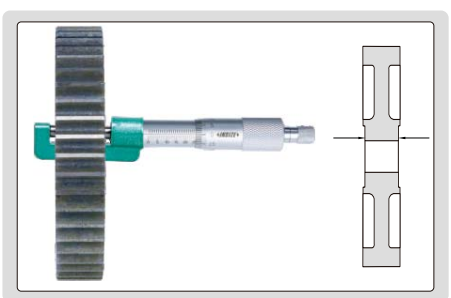
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)



HUB MICROMETER

3292-25





(mm)

Code	Range	Accuracy	h1	h2	H
3292-25	0-25mm	4μm	6	9	18.7
3292-50	25-50mm	4μm	6.5	11	21.2
3292-75	50-75mm	5μm	6.5	11	21.2
3292-100	75-100mm	5μm	6.5	11	21.2

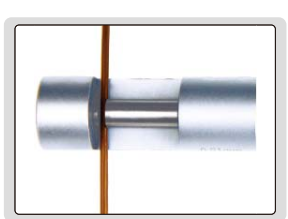
- Measure hub thickness and shoulder inside a bore
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)

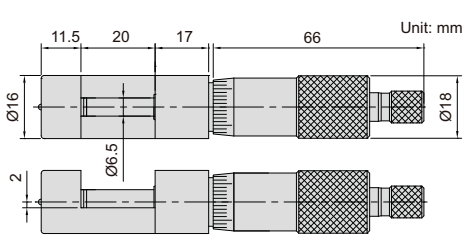
WIRE MICROMETER

3285-10

- Measure diameter of wires and small balls
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces

Code	Range	Accuracy
3285-10	0-10mm	4μm





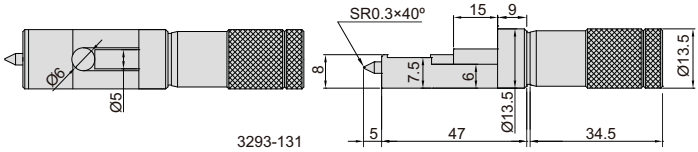
CAN SEAM MICROMETER

3293-131

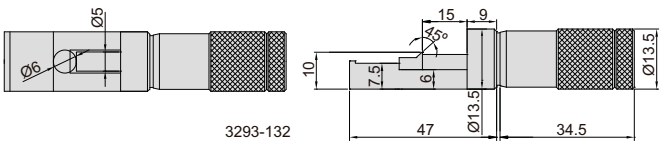
3293-132

3293-133

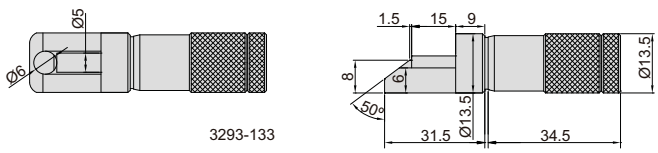
Unit: mm



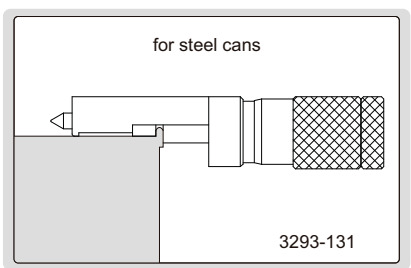
3293-131

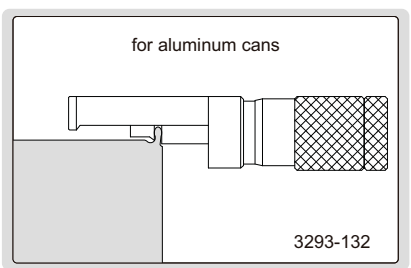


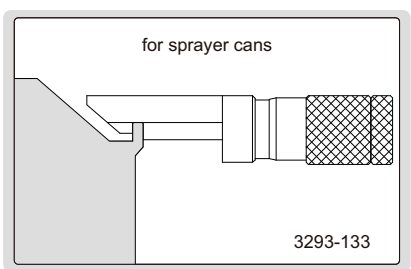
3293-132



3293-133







Code	Range	Accuracy
3293-131	0-13mm	4μm
3293-132	0-13mm	4μm
3293-133	0-13mm	4μm

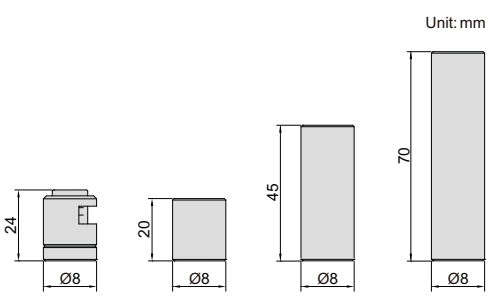
- Measure the width, height and depth of can seams
- Graduation 0.01mm

MICROMETER MEASURING FORCE DETECTOR

6315

Code	Measuring force
6315	5-12N

Unit: mm



- For outside micrometers 0-25mm/0-1", 25-50mm/1-2", 50-75mm/2-3" and 75-100mm/3-4"

OPTICAL PARALLEL

4184-41A

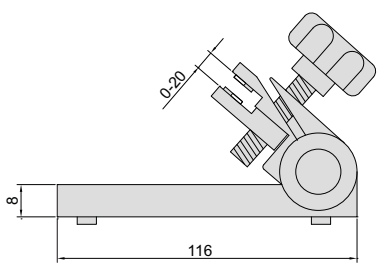
Code	Parallels included	Applicable micrometer
4184-41A	15.62mm, 15.75mm, 15.87mm, 16.00mm	0-25mm
4184-42A	40.62mm, 40.75mm, 40.87mm, 41.00mm	25-50mm
4184-43B	65.62mm, 65.75mm, 65.87mm, 66.00mm	50-75mm
4184-44B	90.62mm, 90.75mm, 90.87mm, 91.00mm	75-100mm

- Check the flatness and parallelism of measuring faces of micrometer

MICROMETER STAND

6300

Unit: mm



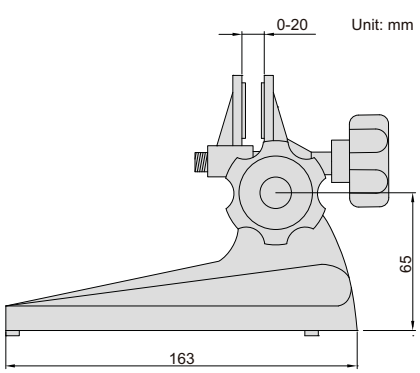
Code
6300

- Suitable for micrometers up to 100mm

MICROMETER STAND

6301

Unit: mm



Code
6301

- Suitable for micrometers up to 100mm

MICROMETER SETTING STANDARD

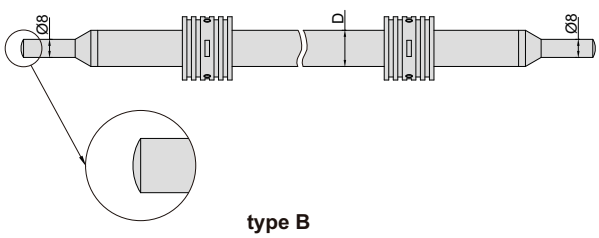
Code	Length	Type	Accuracy	D
6310-25	25mm	A	±1.5μm	Ø7mm
6310-50	50mm	A	±2μm	Ø7mm
6310-75	75mm	A	±2.5μm	Ø7mm
6310-100	100mm	A	±3μm	Ø8mm
6310-125	125mm	A	±3.5μm	Ø8mm
6310-150	150mm	A	±4μm	Ø8mm
6310-175	175mm	A	±4.5μm	Ø8mm
6310-200	200mm	A	±5μm	Ø8mm
6310-225	225mm	A	±5.5μm	Ø8mm
6310-250	250mm	A	±6μm	Ø8mm
6310-275	275mm	A	±6.5μm	Ø8mm
6310-300	300mm	B	±7μm	Ø16mm
6310-325	325mm	B	±7.5μm	Ø16mm
6310-350	350mm	B	±8μm	Ø16mm
6310-375	375mm	B	±8.5μm	Ø16mm
6310-400	400mm	B	±9μm	Ø16mm
6310-425	425mm	B	±9.5μm	Ø16mm
6310-450	450mm	B	±10μm	Ø16mm
6310-475	475mm	B	±10.5μm	Ø16mm
6310-500	500mm	B	±11μm	Ø16mm
6310-525	525mm	B	±11.5μm	Ø16mm
6310-575	575mm	B	±12.5μm	Ø16mm
6310-625	625mm	B	±13.5μm	Ø16mm
6310-675	675mm	B	±14.5μm	Ø16mm
6310-725	725mm	B	±15.5μm	Ø16mm
6310-775	775mm	B	±16.5μm	Ø16mm
6310-825	825mm	B	±17.5μm	Ø16mm
6310-875	875mm	B	±18.5μm	Ø16mm
6310-925	925mm	B	±19.5μm	Ø16mm
6310-975	975mm	B	±20.5μm	Ø16mm
6310-1050	1050mm	B	±22μm	Ø23mm
6310-1150	1150mm	B	±24μm	Ø23mm
6310-1250	1250mm	B	±26μm	Ø23mm
6310-1350	1350mm	B	±28μm	Ø23mm
6310-1450	1450mm	B	±30μm	Ø23mm
6310-1550	1550mm	B	±32μm	Ø23mm
6310-1650	1650mm	B	±34μm	Ø23mm
6310-1750	1750mm	B	±36μm	Ø23mm
6310-1850	1850mm	B	±38μm	Ø23mm
6310-1950	1950mm	B	±40μm	Ø23mm

6310-100

type A

6310-300

Unit: mm



type B

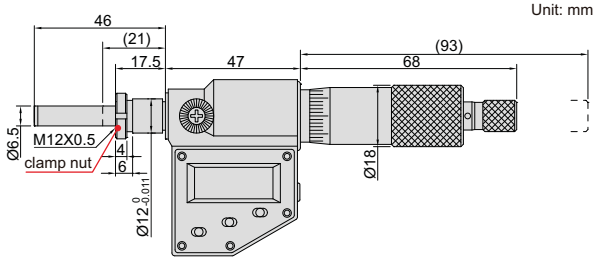
DATA OUTPUT

IP54 WATERPROOF

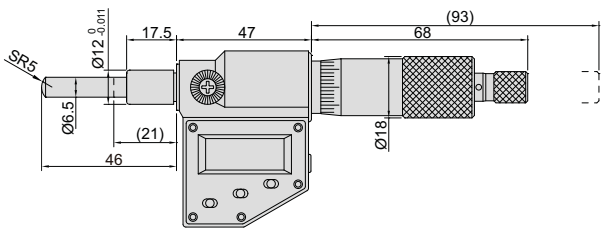
DIGITAL MICROMETER HEAD

6353-25W

Unit: mm

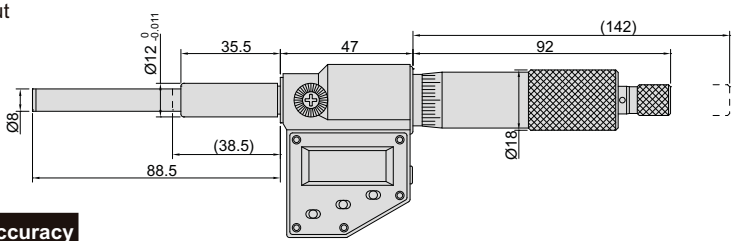


6353-25



6353-25WS

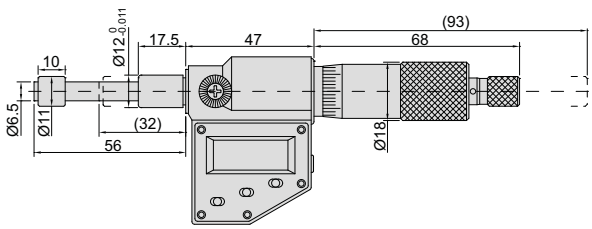
- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Optional accessory: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)



6353-50W

Rotating spindle

Code	Range	Stem	Spindle tip	Accuracy
6353-25	0-25mm/0-1"	with clamp nut	flat (carbide)	±2μm
6353-25W	0-25mm/0-1"	plain	flat (carbide)	±2μm
6353-25S	0-25mm/0-1"	with clamp nut	spherical (SR5)	±2μm
6353-25WS	0-25mm/0-1"	plain	spherical (SR5)	±2μm
6353-50W	0-50mm/0-2"	plain	flat (carbide)	±4μm



6354-25W

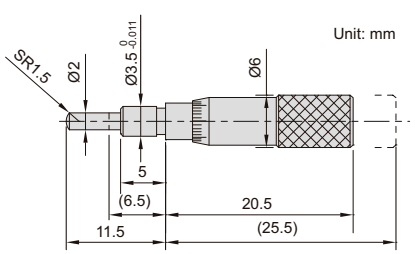
Non-rotating spindle

Code	Range	Stem	Spindle tip	Accuracy
6354-25W	0-25mm/0-1"	plain	flat (carbide)	±2μm

SMALL MICROMETER HEAD

6372-5WS

Unit: mm



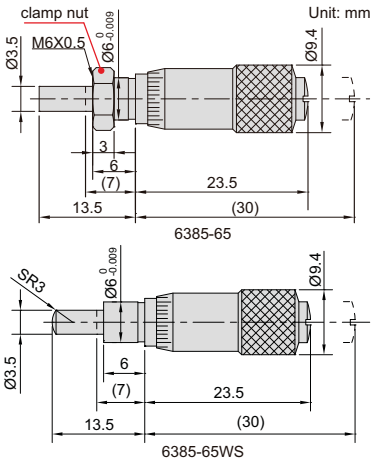
- Graduation 0.02mm

Code	Range	Stem	Spindle tip	Accuracy
6372-5WS	0-5mm	plain	spherical (SR1.5)	5μm

SMALL MICROMETER HEAD

6385-65W

- Graduation 0.01mm

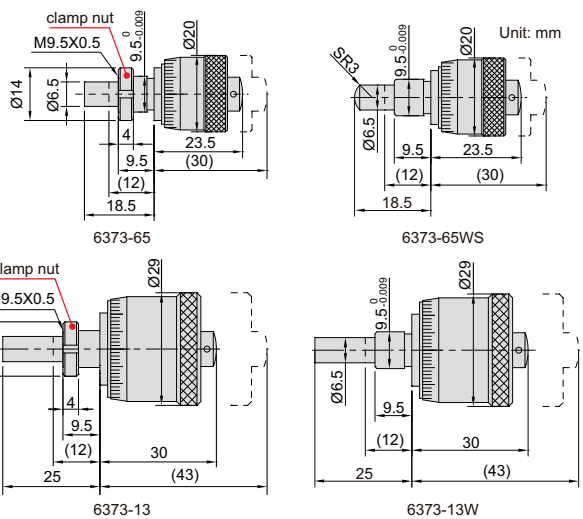


Code	Range	Stem	Spindle tip	Accuracy
6385-65	0-6.5mm	with clamp nut	flat (carbide)	5μm
6385-65W	0-6.5mm	plain	flat (carbide)	5μm
6385-65S	0-6.5mm	with clamp nut	spherical (SR3)	5μm
6385-65WS	0-6.5mm	plain	spherical (SR3)	5μm

LARGE THIMBLE MICROMETER HEAD

6373-65

6373-13



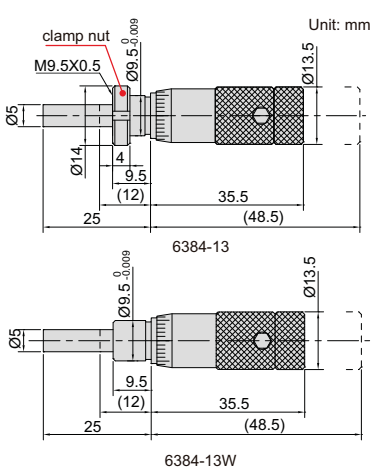
Code	Range	Stem	Spindle tip	Accuracy
6373-65	0-6.5mm	with clamp nut	flat (carbide)	3μm
6373-65W	0-6.5mm	plain	flat (carbide)	3μm
6373-65S	0-6.5mm	with clamp nut	spherical (SR3)	3μm
6373-65WS	0-6.5mm	plain	spherical (SR3)	3μm
6373-13	0-13mm	with clamp nut	flat (carbide)	3μm
6373-13W	0-13mm	plain	flat (carbide)	3μm

- Large thimble diameter for easy reading
- Graduation 0.01mm

MICROMETER HEAD WITH ZERO ADJUSTABLE THIMBLE

6384-13W

- Graduation 0.01mm
- The thimble can be set to zero at any position

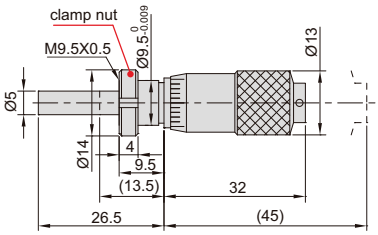


Code	Range	Stem	Spindle tip	Accuracy
6384-13	0-13mm	with clamp nut	flat (carbide)	3μm
6384-13W	0-13mm	plain	flat (carbide)	3μm

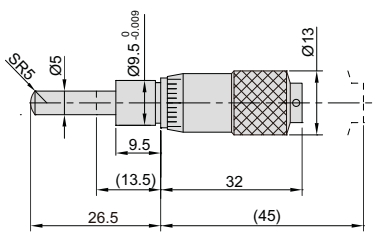
MICROMETER HEAD

6386-13W

Unit: mm

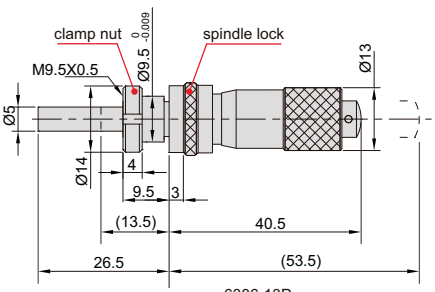


6386-13

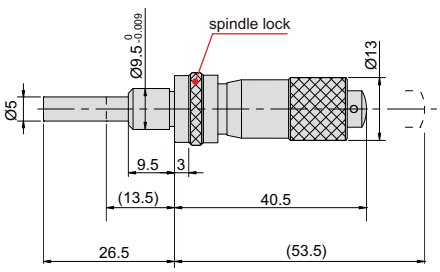


6386-13WS

6386-13P



6386-13P



6386-13WP

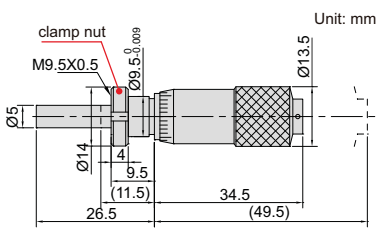
- Graduation 0.01mm

Code	Range	Stem	Spindle tip	Remark	Accuracy
6386-13	0-13mm	with clamp nut	flat (carbide)		3μm
6386-13W	0-13mm	plain	flat (carbide)		3μm
6386-13S	0-13mm	with clamp nut	spherical (SR5)		3μm
6386-13WS	0-13mm	plain	spherical (SR5)		3μm
6386-13P	0-13mm	with clamp nut	flat (carbide)	with spindle lock	3μm
6386-13WP	0-13mm	plain	flat (carbide)	with spindle lock	3μm

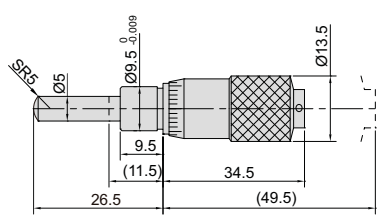
MICROMETER HEAD

6387-15WS

Unit: mm



6387-15



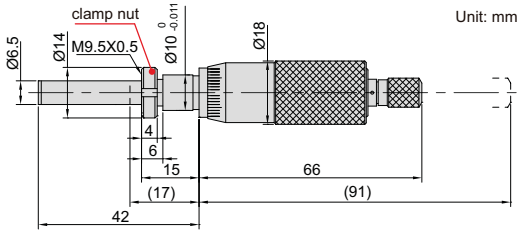
6387-15WS

- Graduation 0.01mm

Code	Range	Stem	Spindle tip	Accuracy
6387-15	0-15mm	with clamp nut	flat (carbide)	3μm
6387-15W	0-15mm	plain	flat (carbide)	3μm
6387-15S	0-15mm	with clamp nut	spherical (SR5)	3μm
6387-15WS	0-15mm	plain	spherical (SR5)	3μm

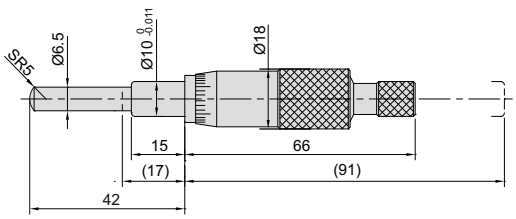
MICROMETER HEAD

6381-25

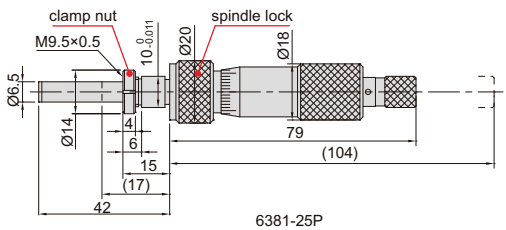


6381-25

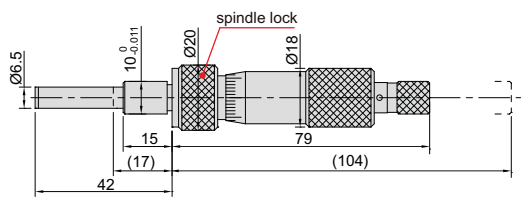
6381-25P



6381-25WS



6381-25P



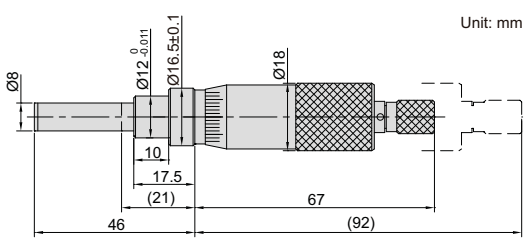
6381-25WP

Code	Range	Stem	Spindle tip	Remark	Accuracy
6381-25	0-25mm	with clamp nut	flat (carbide)		3μm
6381-25W	0-25mm	plain	flat (carbide)		3μm
6381-25S	0-25mm	with clamp nut	spherical (SR5)		3μm
6381-25WS	0-25mm	plain	spherical (SR5)		3μm
6381-25P	0-25mm	with clamp nut	flat (carbide)	with spindle lock	3μm
6381-25WP	0-25mm	plain	flat (carbide)	with spindle lock	3μm

- Graduation 0.01mm
- Ratchet stop

NON ROTATING SPINDLE MICROMETER HEAD

6377-25W

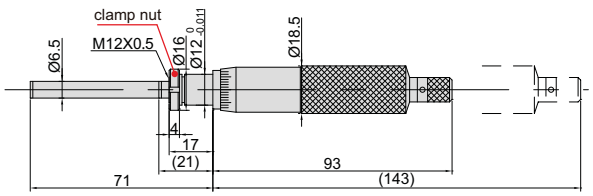


- Graduation 0.01mm
- Ratchet stop
- Non rotating spindle

Code	Range	Stem	Spindle tip	Accuracy
6377-25W	0-25mm	plain	flat (carbide)	3μm

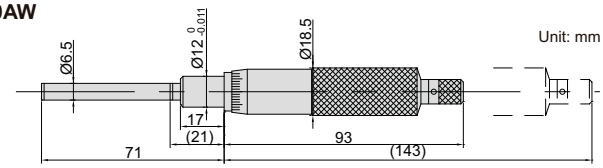
LARGE MICROMETER HEAD

6388-50AW



6388-50A

Unit: mm



6388-50AW

Code	Range	Stem	Spindle tip	Accuracy
6388-50A	0-50mm	with clamp nut	flat (carbide)	5μm
6388-50AW	0-50mm	plain	flat (carbide)	5μm

- Graduation 0.01mm
- Ratchet stop

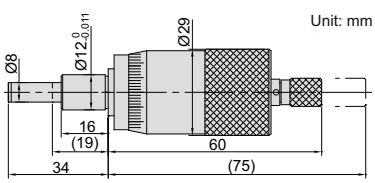
QUICK SPINDLE FEEDING MICROMETER HEAD

6375-15W

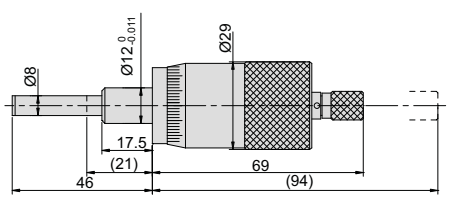
6375-25W

6375-50W

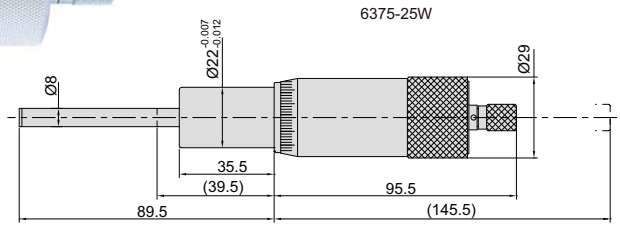
Unit: mm



6375-15W



6375-25W



6375-50W

Code	Range	Stem	Spindle tip	Accuracy
6375-15W	0-15mm	plain	flat (carbide)	3μm
6375-25W	0-25mm	plain	flat (carbide)	3μm
6375-50W	0-50mm	plain	flat (carbide)	5μm

- Graduation 0.01mm
- Quick spindle feed of 1mm/rev.
- Ratchet stop

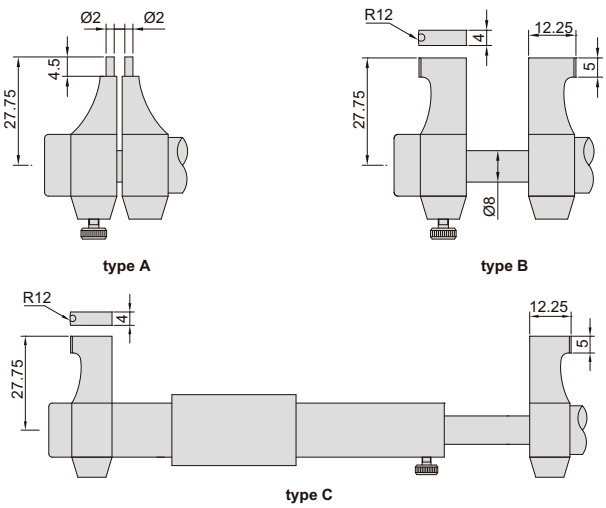
INSIDE MICROMETER

3220-50

- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Optional accessary: setting ring (code **6312**)

Code	Range	Type	Setting ring	Accuracy
3220-30	5-30mm	A	5mm(included)	7μm
3220-50	25-50mm	B	25mm(included)	8μm
3220-75	50-75mm	B	50mm(optional)	9μm
3220-100	75-100mm	C	75mm(optional)	10μm

Unit: mm

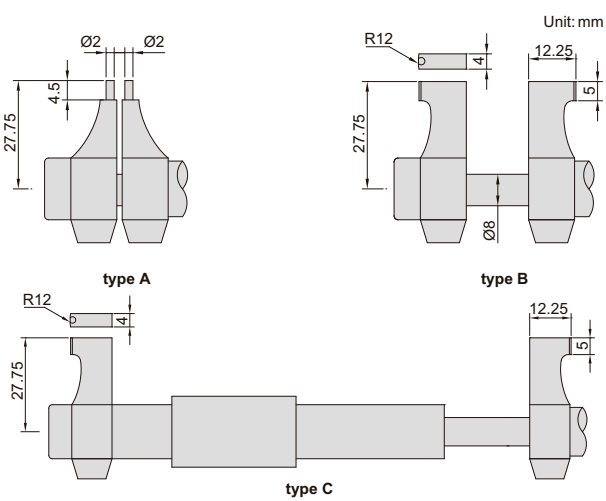


DIGITAL INSIDE MICROMETER

DATA OUTPUT

3520-30

Unit: mm



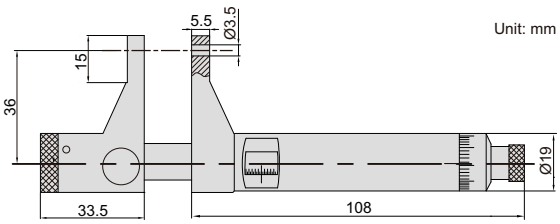
Code	Range	Type	Setting ring	Accuracy
3520-30	5-30mm/0.2-1.2"	A	5mm(included)	±5μm
3520-50	25-50mm/1-2"	B	25mm(included)	±6μm
3520-75	50-75mm/2-3"	B	50mm(optional)	±7μm
3520-100	75-100mm/3-4"	C	75mm(optional)	±8μm

- Resolution 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessary: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**), setting ring (code **6312**)

INTERNAL SCREW THREAD MICROMETER

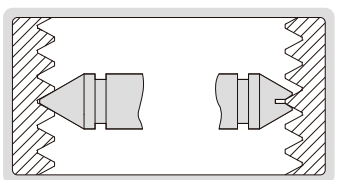
tips are not included

3640-45



- Measure pitch diameter of screw thread
- Graduation 0.01mm
- Ratchet stop
- Optional accessary: measuring tips for internal screw thread micrometer (code **7385**)

Code	Range	Accuracy	Applicable tips
3640-45	20-45mm	4μm	stem length L=5mm
3640-70	45-70mm	5μm	stem length L=5mm
3640-95	70-95mm	5μm	stem length L=13.5mm
3640-120	95-120mm	6μm	stem length L=13.5mm



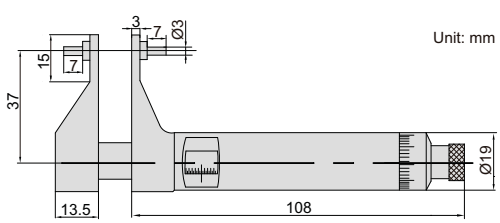
INTERNAL GEAR TOOTH MICROMETER

before ball tips are installed

ball tips are not included

3637-50

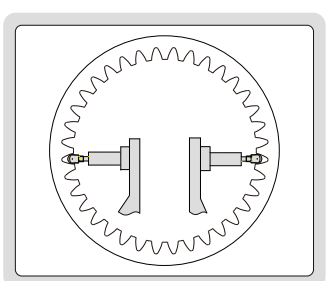
RELATIVE PRODUCT:
GEAR BORE GAGE (CODE 2428)



- Measure over-pin diameter of gears
- Graduation 0.01mm
- Ratchet stop
- Optional accessary: ball tips (code **7383**)

(mm)

Code	Range	Accuracy
3637-50	25-50mm	4μm
3637-75	50-75mm	5μm



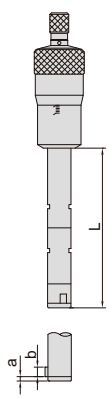
THREE POINTS INTERNAL MICROMETER

MANUFACTURER INSPECTION CERTIFICATE

3227- 8

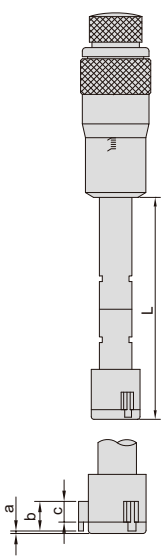
3227- 16

3227- 125



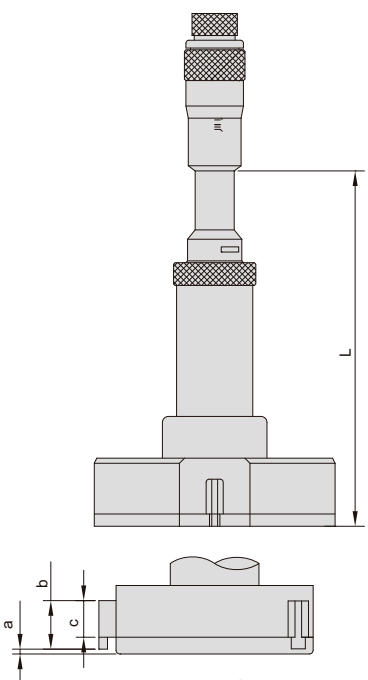
Type A

6-12mm, steel measuring points



Type B

12-50mm, carbide measuring points



Type C

50-300mm, carbide measuring points

setting ring

6-100mm: included
100-300mm: optional

extension rod

included

interchangeable jaws

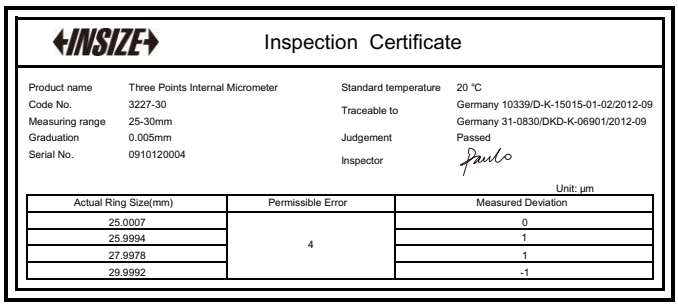
100-300mm: have two sets of jaws for different measuring range(For example, 3227-125 has 100-112.5mm and 112.5-125mm jaws)

To be continued

Continued from previous page

- 6-12mm: graduation 0.001mm
  12-300mm: graduation 0.005mm
- Ratchet stop
- Optional accessory: setting rings (code **6312**)

Manufacturer Inspection Certificate



INSIZE Inspection Certificate

Product name	Three Points Internal Micrometer	Standard temperature	20 °C
Code No.	3227-30	Traceable to	Germany 10339/D-K-15015-01-02/2012-09
Measuring range	25-30mm		Germany 31-0830/DKD-K-06901/2012-09
Graduation	0.005mm	Judgement	Passed
Serial No.	0910120004	Inspector	Paulo

Unit: μm

Actual Ring Size(mm)	Permissible Error	Measured Deviation
25.0007	4	0
25.9994		1
27.9978		1
29.9992		-1

Individual **(mm)**

Code	Range	Type	Accuracy	Setting ring	Extension rod (included)	L	a	b	c
3227-8 *	6-8mm	A	4μm	Ø6mm(included)	100mm	54.5	1.5	2.5	—
3227-10 *	8-10mm	A	4μm	Ø8mm(included)	100mm	54.5	1.5	2.5	—
3227-12 *	10-12mm	A	4μm	Ø10mm(included)	100mm	54.5	1.5	2.5	—
3227-16 *	12-16mm	B	4μm	Ø16mm(included)	150mm	80	0.5	6	4.5
3227-20 *	16-20mm	B	4μm	Ø16mm(included)	150mm	80	0.5	6	4.5
3227-25 *	20-25mm	B	4μm	Ø25mm(included)	150mm	90	0.5	8	6
3227-30 *	25-30mm	B	4μm	Ø25mm(included)	150mm	90	0.5	8	6
3227-40 *	30-40mm	B	4μm	Ø40mm(included)	150mm	97	0.5	14	12
3227-50 *	40-50mm	B	5μm	Ø40mm(included)	150mm	97	0.5	14	12
3227-63 *	50-63mm	C	5μm	Ø62mm(included)	150mm	114	0.5	17.5	14.5
3227-75 *	62-75mm	C	5μm	Ø62mm(included)	150mm	114	0.5	17.5	14.5
3227-88 *	75-88mm	C	5μm	Ø87mm(included)	150mm	114	0.5	17.5	14.5
3227-100 *	87-100mm	C	5μm	Ø87mm(included)	150mm	114	0.5	17.5	14.5
3227-125 *	100-125mm	C	5μm	Ø112.5mm(optional)	150mm	145	0.5	19.5	14.5
3227-150 *	125-150mm	C	5μm	Ø137.5mm(optional)	150mm	145	0.5	19.5	14.5
3227-175 *	150-175mm	C	5μm	Ø162.5mm(optional)	150mm	145	0.5	19.5	14.5
3227-200 *	175-200mm	C	5μm	Ø187.5mm(optional)	150mm	145	0.5	19.5	14.5
3227-225	200-225mm	C	7μm	Ø212.5mm(optional)	150mm	145	0.5	19.5	14.5
3227-250	225-250mm	C	7μm	Ø237.5mm(optional)	150mm	145	0.5	19.5	14.5
3227-275	250-275mm	C	7μm	Ø262.5mm(optional)	150mm	145	0.5	19.5	14.5
3227-300	275-300mm	C	7μm	Ø287.5mm(optional)	150mm	145	0.5	19.5	14.5

Set

Code	Range	Micrometers included	Setting ring (included)	Extension rod (included)
3227-123 *	6-12mm	6-8mm, 8-10mm, 10-12mm	Ø6mm,Ø8mm,Ø10mm	100mm
3227-202 *	12-20mm	12-16mm, 16-20mm	Ø16mm	150mm
3227-504 *	20-50mm	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
3227-1004 *	50-100mm	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

*Supplied with manufacturer inspection certificate

DIGITAL THREE POINTS INTERNAL MICROMETER

MANUFACTURER INSPECTION CERTIFICATE

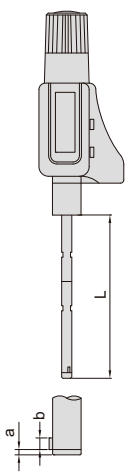
DATA OUTPUT

IP54 WATERPROOF

3127-12

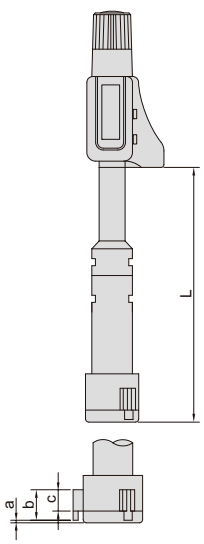
3127-40

3127-125



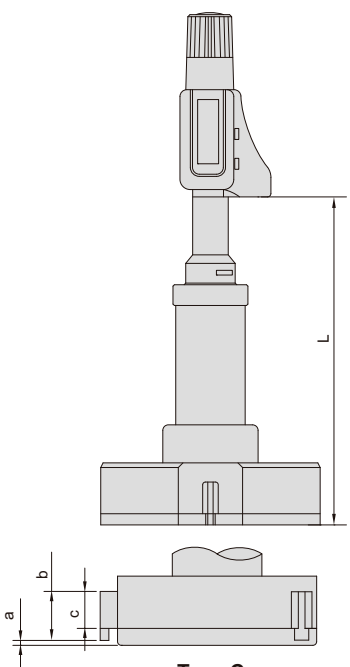
Type A

6-12mm, steel measuring points



Type B

12-50mm, carbide measuring points



Type C

50-300mm, carbide measuring points

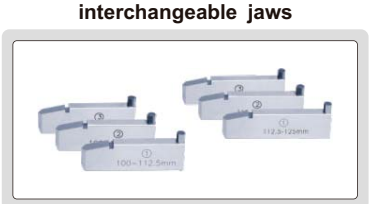
setting ring

6-100mm: included
100-300mm: optional

extension rod

included

interchangeable jaws



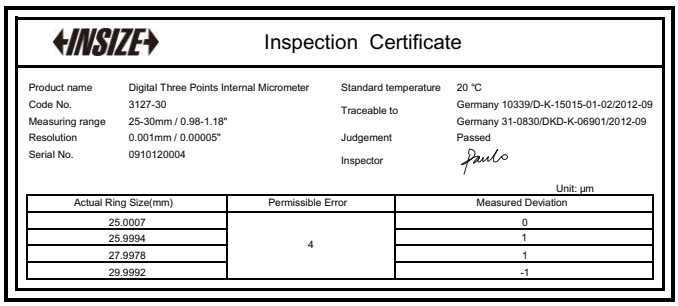
100-300mm: have two sets of jaws for different measuring range(For example, 3127-125 has 100-112.5mm and 112.5-125mm jaws)

To be continued

Continued from previous page

- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Buttons: on/off, set, mm/inch, ABS/INC
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Optional accessary: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**), setting ring (code **6312**)

Manufacturer Inspection Certificate



INSIZE Inspection Certificate

Product name	Digital Three Points Internal Micrometer	Standard temperature	20 °C
Code No.	3127-30	Traceable to	Germany 10339/D-K-15015-01-02/2012-09
Measuring range	25-30mm / 0.98-1.18"		Germany 31-0830/DKD-K-06901/2012-09
Resolution	0.001mm / 0.00005"	Judgement	Passed
Serial No.	0910120004	Inspector	Paulo

Unit: μm

Actual Ring Size(mm)	Permissible Error	Measured Deviation
25.0007	4	0
25.9994		1
27.9978		1
29.9992		-1

Individual **(mm)**

Code	Range	Type	Accuracy	Setting ring	Extension rod (included)	L	a	b	c
3127-8 *	6-8mm/0.24-0.31"	A	4μm	Ø6mm(included)	100mm	54.5	1.5	2.5	—
3127-10 *	8-10mm/0.31-0.39"	A	4μm	Ø8mm(included)	100mm	54.5	1.5	2.5	—
3127-12 *	10-12mm/0.39-0.47"	A	4μm	Ø10mm(included)	100mm	54.5	1.5	2.5	—
3127-16 *	12-16mm/0.47-0.63"	B	4μm	Ø16mm(included)	150mm	80	0.5	6	4.5
3127-20 *	16-20mm/0.63-0.79"	B	4μm	Ø16mm(included)	150mm	80	0.5	6	4.5
3127-25 *	20-25mm/0.79-0.98"	B	4μm	Ø25mm(included)	150mm	90	0.5	8	6
3127-30 *	25-30mm/0.98-1.18"	B	4μm	Ø25mm(included)	150mm	90	0.5	8	6
3127-40 *	30-40mm/1.18-1.57"	B	4μm	Ø40mm(included)	150mm	97	0.5	14	12
3127-50 *	40-50mm/1.57-1.97"	B	5μm	Ø40mm(included)	150mm	97	0.5	14	12
3127-63 *	50-63mm/1.97-2.48"	C	5μm	Ø62mm(included)	150mm	114	0.5	17.5	14.5
3127-75 *	62-75mm/2.44-2.95"	C	5μm	Ø62mm(included)	150mm	114	0.5	17.5	14.5
3127-88 *	75-88mm/2.95-3.46"	C	5μm	Ø87mm(included)	150mm	114	0.5	17.5	14.5
3127-100 *	87-100mm/3.43-3.94"	C	5μm	Ø87mm(included)	150mm	114	0.5	17.5	14.5
3127-125 *	100-125mm/3.94-4.92"	C	5μm	Ø112.5mm(optional)	150mm	150	0.5	19.5	14.5
3127-150 *	125-150mm/4.92-5.91"	C	5μm	Ø137.5mm(optional)	150mm	150	0.5	19.5	14.5
3127-175 *	150-175mm/5.91-6.89"	C	5μm	Ø162.5mm(optional)	150mm	150	0.5	19.5	14.5
3127-200 *	175-200mm/6.89-7.87"	C	5μm	Ø187.5mm(optional)	150mm	150	0.5	19.5	14.5
3127-225	200-225mm/7.87-8.86"	C	7μm	Ø212.5mm(optional)	150mm	150	0.5	19.5	14.5
3127-250	225-250mm/8.86-9.84"	C	7μm	Ø237.5mm(optional)	150mm	150	0.5	19.5	14.5
3127-275	250-275mm/9.84-10.83"	C	7μm	Ø262.5mm(optional)	150mm	150	0.5	19.5	14.5
3127-300	275-300mm/10.83-11.81"	C	7μm	Ø287.5mm(optional)	150mm	150	0.5	19.5	14.5

Set

Code	Range	Micrometers included	Setting ring (included)	Extension rod (included)
3127-123 *	6-12mm/0.24-0.47"	6-8mm, 8-10mm, 10-12mm	Ø6mm,Ø8mm,Ø10mm	100mm
3127-202 *	12-20mm/0.47-0.79"	12-16mm, 16-20mm	Ø16mm	150mm
3127-504 *	20-50mm/0.79-1.97"	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
3127-1004 *	50-100mm/1.97-3.94"	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

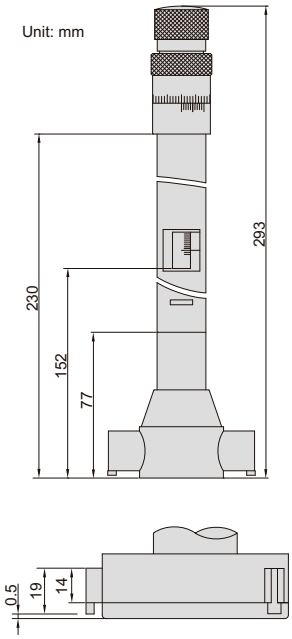
*Supplied with manufacturer inspection certificate

WIDE RANGE THREE POINTS INTERNAL MICROMETER

MANUFACTURER INSPECTION CERTIFICATE

- Graduation 0.001mm
- Carbide measuring faces
- Ratchet stop
- Setting rings are included (except 200-300mm)

setting ring



3228-70

Code	Range	Accuracy	Setting ring
3228-70*	50-70mm	5μm	Ø50mm(included)
3228-100*	70-100mm	5μm	Ø70mm(included)
3228-150*	100-150mm	6μm	Ø100mm(included)
3228-250*	150-250mm	8μm	Ø150mm(included)
3228-300*	200-300mm	9μm	Ø200mm(optional)

*Supplied with manufacturer inspection certificate

DIGITAL WIDE RANGE THREE POINTS INTERNAL MICROMETER

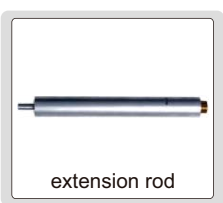
MANUFACTURER INSPECTION CERTIFICATE

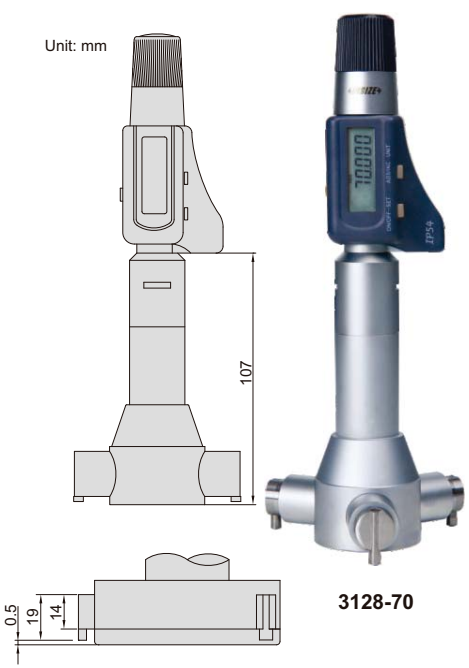
IP54 WATERPROOF

DATA OUTPUT

- Resolution 0.001mm/0.00005"
- IP54 dust/waterproof
- Buttons: on/off, set, mm/inch, ABS/INC
- Data output
- LR44 battery, automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with extension rods
- Setting rings are included (except 200-300mm)
- Optional accessary: data output cable (code **7306-30, 7302-SPC2A, 7305-SPC3**)

setting ring


extension rod



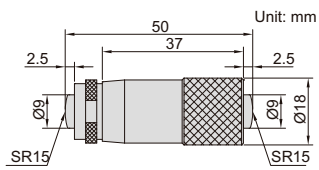
3128-70

Code	Range	Accuracy	Setting ring	Extension rod (included)
3128-70*	50-70mm/1.97-2.76"	5μm	Ø50mm(included)	150mm
3128-100*	70-100mm/2.76-3.94"	5μm	Ø70mm(included)	150mm
3128-150*	100-150mm/3.94-5.91"	6μm	Ø100mm(included)	150mm
3128-250*	150-250mm/5.91-9.84"	8μm	Ø150mm(included)	150mm
3128-300*	200-300mm/7.87-11.81"	9μm	Ø200mm(optional)	150mm

*Supplied with manufacturer inspection certificate

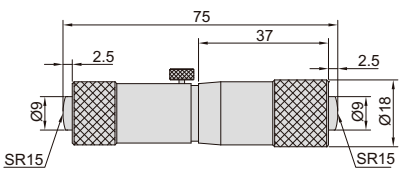
TUBULAR INSIDE MICROMETER

3229-225

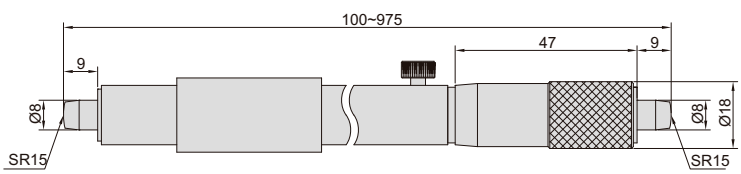


type A

- Graduation 0.01mm
- Carbide measuring faces



type B



type C

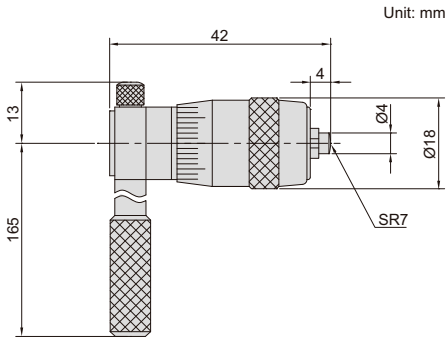
Code	Range	Type	Accuracy
3229-75	50-75mm	A	5μm
3229-100	75-100mm	B	5μm
3229-125	100-125mm	C	6μm
3229-150	125-150mm	C	6μm
3229-175	150-175mm	C	7μm
3229-200	175-200mm	C	7μm
3229-225	200-225mm	C	8μm
3229-250	225-250mm	C	8μm
3229-275	250-275mm	C	9μm
3229-300	275-300mm	C	9μm
3229-325	300-325mm	C	9μm
3229-350	325-350mm	C	9μm
3229-375	350-375mm	C	10μm
3229-400	375-400mm	C	10μm
3229-425	400-425mm	C	10μm
3229-450	425-450mm	C	10μm
3229-475	450-475mm	C	11μm
3229-500	475-500mm	C	11μm

Code	Range	Type	Accuracy
3229-525	500-525mm	C	11μm
3229-550	525-550mm	C	11μm
3229-575	550-575mm	C	11μm
3229-600	575-600mm	C	12μm
3229-625	600-625mm	C	12μm
3229-650	625-650mm	C	12μm
3229-675	650-675mm	C	13μm
3229-700	675-700mm	C	13μm
3229-725	700-725mm	C	13μm
3229-750	725-750mm	C	14μm

Code	Range	Type	Accuracy
3229-775	750-775mm	C	14μm
3229-800	775-800mm	C	14μm
3229-825	800-825mm	C	15μm
3229-850	825-850mm	C	15μm
3229-875	850-875mm	C	15μm
3229-900	875-900mm	C	16μm
3229-925	900-925mm	C	16μm
3229-950	925-950mm	C	16μm
3229-975	950-975mm	C	17μm
3229-1000	975-1000mm	C	17μm

TUBULAR INSIDE MICROMETER

3221-200

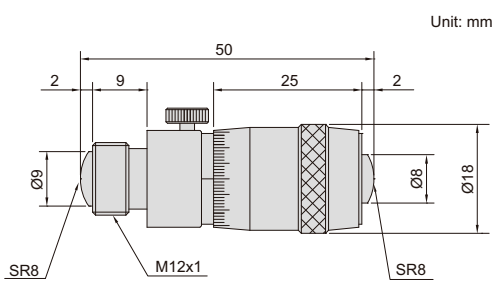


Code	Range	Travel of micrometer head	Extension rods
3221-32	25-32mm	7mm	—
3221-50	25-50mm	7mm	2pcs
3221-63	50-63mm	13mm	—
3221-200	50-200mm	13mm	6pcs
3221-300	50-300mm	13mm	10pcs
3221-225	200-225mm	25mm	—
3221-500	200-500mm	25mm	3pcs
3221-1000	200-1000mm	25mm	8pcs

- Graduation 0.01mm
- Accuracy: (6+L/50)μm
  L=maximum measuring length (mm)
- Optional accessary: setting ring (code **6312**)

TUBULAR INSIDE MICROMETER

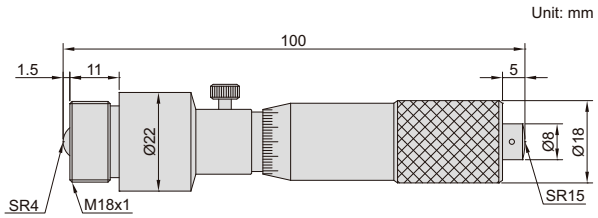
3222-150



- Graduation 0.01mm
- Accuracy: (3+n+L/50)μm
  n=number of rods, L=maximum measuring length(mm)
- Supplied with setting standards
- Carbide measuring faces

Code	Range	Travel of micrometer head	Extension rods
3222-63	50-63mm	13mm	—
3222-150	50-150mm	13mm	13mm, 25mm, 50mm
3222-300	50-300mm	13mm	13mm, 25mm, 50mm (2pcs), 100mm
3222-500	50-500mm	13mm	13mm, 25mm, 50mm (2pcs), 100mm, 200mm
3222-600	50-600mm	13mm	13mm, 25mm, 50mm, 100mm, 150mm, 200mm
3222-1000	50-1000mm	13mm	13mm, 25mm, 50mm (2pcs), 100mm, 200mm (2pcs), 300mm
3222-1500	50-1500mm	13mm	13mm, 25mm, 50mm (2pcs), 100mm, 200mm (3pcs), 300mm (2pcs)

TUBULAR INSIDE MICROMETER



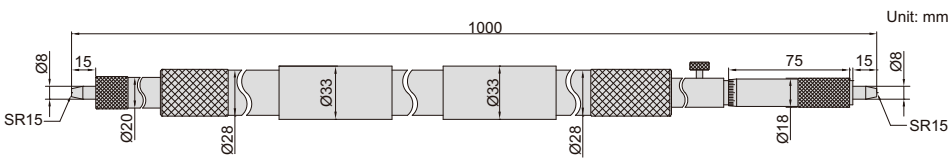
3225-500

- Graduation 0.01mm
- Accuracy: (3+n+L/50)μm
  n=number of rods, L=maximum measuring length(mm)
- Supplied with setting standards
- Carbide measuring faces

Code	Range	Travel of micrometer head	Extension rods
3225-125	100-125mm	25mm	—
3225-500	100-500mm	25mm	25mm, 50mm, 100mm, 200mm
3225-900	100-900mm	25mm	25mm, 50mm, 100mm, 200mm, 400mm
3225-1300	100-1300mm	25mm	25mm, 50mm, 100mm, 200mm, 400mm (2pcs)
3225-1700	100-1700mm	25mm	25mm, 50mm, 100mm, 200mm, 400mm (3pcs)
3225-2100	100-2100mm	25mm	25mm, 50mm, 100mm, 200mm, 400mm (4pcs)

TUBULAR INSIDE MICROMETER

3224-2000



- Graduation 0.01mm
- Accuracy: (7+n+L/50)μm
  n=number of rods, L=maximum measuring length(mm)
- Carbide measuring faces

Code	Range	Travel of micrometer head	Extension rods
3224-2000	1000-2000mm	50mm	50mm, 100mm (2pcs), 200mm, 500mm
3224-3000	1000-3000mm	50mm	50mm, 100mm (2pcs), 200mm, 500mm, 1000mm
3224-4000	1000-4000mm	50mm	50mm, 100mm (2pcs), 200mm, 500mm, 1000mm (2pcs)
3224-5000	1000-5000mm	50mm	50mm, 100mm (2pcs), 200mm, 500mm, 1000mm (3pcs)

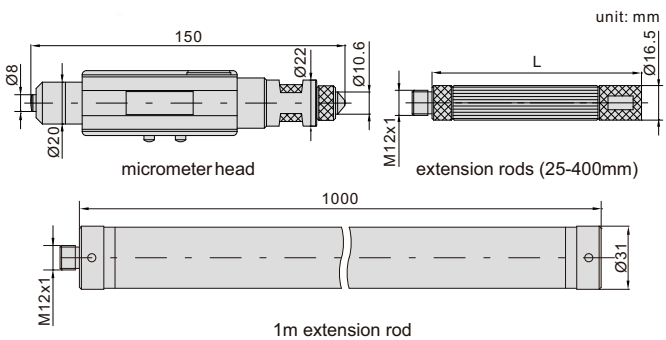
DIGITAL NON-ROTATING SPINDLE TUBULAR INSIDE MICROMETER

SPRING LOADED MEASURING POINT

NON-ROTATING SPINDLE

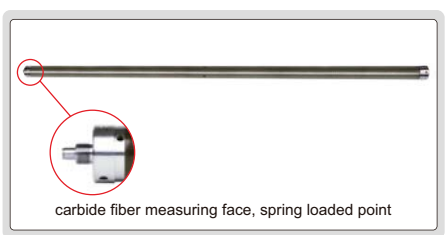
DATA OUTPUT

3635-950



non-rotating spindle, spring loaded point and max./min. value tracking make it easy to find the right measuring position

1m carbon fiber extension rod, light weight, no deform



- Carbide measuring faces for micrometer head and extension rods
- Points of extension rods are spring loaded
- Data output
- Button function: mm/inch, max./min. value tracking, tolerance measurement, hold, on/off, zero
- CR2032 battery, automatic power off

Micrometer head

Range	Resolution	Accuracy	Repeatability	Measuring force	Weight
150-175mm	0.01mm/0.0005" 0.001mm/0.00005" (switchable)	±4μm	1μm	5-10N	275g

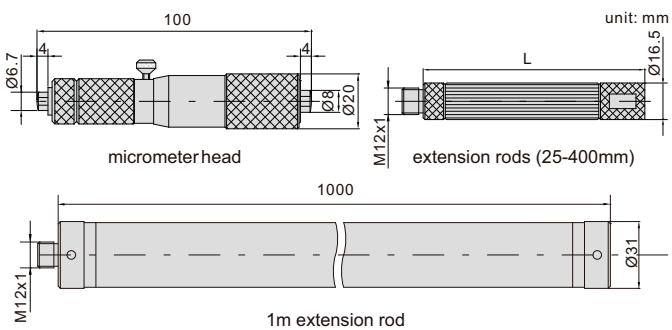
Extension rods

Length (L)	Accuracy	Weight	Material
25mm	±1.25μm	37g	steel
50mm	±1.25μm	65g	steel
100mm	±2μm	113g	steel
200mm	±3.5μm	208g	steel
400mm	±4.5μm	402g	steel
1000mm	±7.5μm	909g	carbon fiber

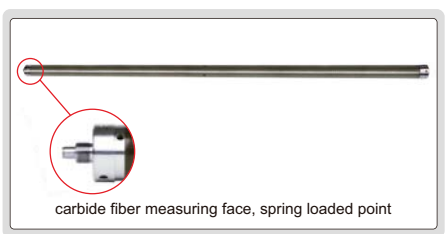
Code	Range	Micrometer head	Extension rods
3635-350	150-350mm	150-175mm	25mm, 50mm, 100mm
3635-550	150-550mm	150-175mm	25mm, 50mm, 100mm, 200mm
3635-950	150-950mm	150-175mm	25mm, 50mm, 100mm, 200mm, 400mm
3635-1550	150-1550mm	150-175mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm(2pcs)
3635-2150	150-2150mm	150-175mm	25mm, 50mm, 100mm, 200mm, 400mm(4pcs)
3635-3150	150-3150mm	150-175mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(2pcs)
3635-4150	150-4150mm	150-175mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(3pcs)
3635-5150	150-5150mm	150-175mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(4pcs)
3635-6150	150-6150mm	150-175mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(5pcs)

TUBULAR INSIDE MICROMETER

3634-1300



1m carbon fiber extension rod, light weight, no deform



- Carbide measuring faces for micrometer head and extension rods
- Points of extension rods are spring loaded

Micrometer head

Range	Graduation	Accuracy	Weight
100-125mm	0.01mm	±4μm	154g

Extension rods

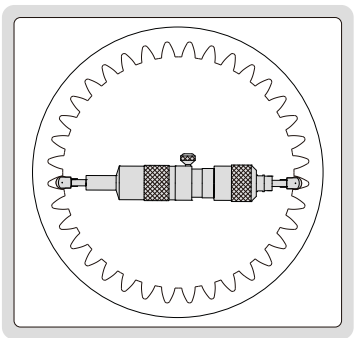
Length (L)	Accuracy	Weight	Material
25mm	±1.25μm	37g	steel
50mm	±1.25μm	65g	steel
100mm	±2μm	113g	steel
200mm	±3.5μm	208g	steel
400mm	±4.5μm	402g	steel
1000mm	±7.5μm	909g	carbon fiber

Code	Range	Micrometer head	Extension rods
3634-350	100-350mm	100-125mm	25mm, 50mm, 50mm, 100mm
3634-500	100-500mm	100-125mm	25mm, 50mm, 100mm, 200mm
3634-1300	100-1300mm	100-125mm	25mm, 50mm, 100mm, 200mm, 400mm(2pcs)
3634-1500	100-1500mm	100-125mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm(2pcs)
3634-2100	100-2100mm	100-125mm	25mm, 50mm, 100mm, 200mm, 400mm(4pcs)
3634-3100	100-3100mm	100-125mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(2pcs)
3634-4100	100-4100mm	100-125mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(3pcs)
3634-5100	100-5100mm	100-125mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(4pcs)
3634-6100	100-6100mm	100-125mm	25mm, 50mm, 100mm, 200mm(2pcs), 400mm, 1000mm(5pcs)

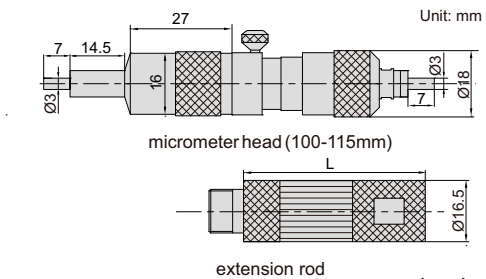
INTERNAL GEAR TOOTH MICROMETER

3638-200

ball tips are not included



- Measure over-pin diameter of gears
- Points of extension rods are spring loaded
- Optional accessary: ball tips (code **7383**)



RELATIVE PRODUCT:
GEAR BORE GAGE (CODE 2428)

(mm)

Code	Range	Micrometer head	Extension rod (L)
3638-200	100-205mm	100-115mm	15, 25, 30
3638-500	100-505mm	100-115mm	15, 25, 50, 100, 200
3638-900	100-905mm	100-115mm	15, 25, 50, 100, 200, 400
3638-1100	150-1150mm	150-175mm	25, 50, 100, 200, 200, 400

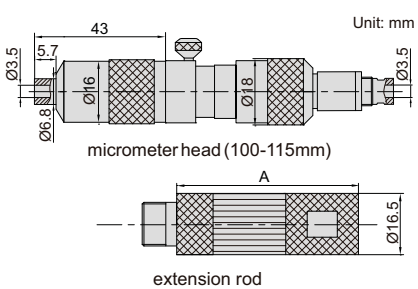
Micrometer head

Range	Graduation	Accuracy
100-115mm	0.01mm	±4μm
150-175mm	0.01mm	±4μm

Extension rod

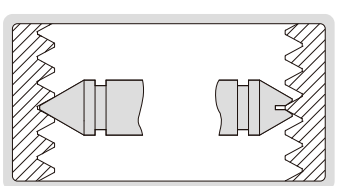
Length (L)	Accuracy
15mm	±1μm
25mm	±1.25μm
30mm	±1.25μm
50mm	±1.25μm
100mm	±2μm
200mm	±3.5μm
400mm	±4.5μm

INTERNAL SCREW THREAD MICROMETER



3641-200

tips are not included



- Measure pitch diameter of screw thread
- Points of extension rods are spring loaded
- Optional accessary: measuring tips for internal screw thread micrometer (code **7385**)

Code	Range	Micrometer head	Extension rod (A)	Applicable tips
3641-200	100-205mm	100-115mm	15, 25, 50mm	stem length L=13.5mm
3641-500	100-505mm	100-115mm	15, 25, 50, 100, 200mm	stem length L=13.5mm
3641-900	100-905mm	100-115mm	15, 25, 50, 100, 200, 400mm	stem length L=13.5mm
3641-1100	150-1150mm	150-175mm	25, 50, 100, 200, 200, 400mm	stem length L=13.5mm

Micrometer head

Range	Graduation	Accuracy
100-115mm	0.01mm	±4μm
150-175mm	0.01mm	±4μm

Extension rod

Length (A)	Accuracy
15mm	±1μm
25mm	±1.25μm
50mm	±1.25μm
100mm	±2μm
200mm	±3.5μm
400mm	±4.5μm

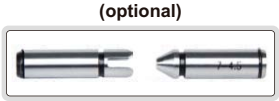
INTERNAL SCREW THREAD MICROMETER

- Graduation: 0.01mm
- Optional accessory: measuring tips for internal screw thread micrometer (code **7321**), zero block (code **3226-SP**)

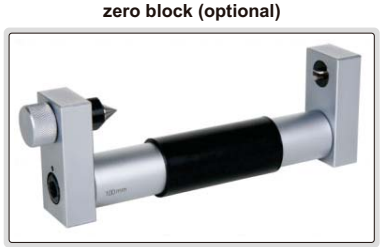
3226-1001

Code	Range	Zero Block (optional)
3226-1001	75-100mm	100mm (code **3226-SP100**)
3226-1251	100-125mm	100mm (code **3226-SP100**)
3226-1501	125-150mm	150mm (code **3226-SP150**)
3226-1751	150-175mm	150mm (code **3226-SP150**)
3226-2001	175-200mm	200mm (code **3226-SP200**)
3226-2251	200-225mm	200mm (code **3226-SP200**)
3226-2501	225-250mm	250mm (code **3226-SP250**)
3226-2751	250-275mm	250mm (code **3226-SP250**)
3226-3001	275-300mm	300mm (code **3226-SP300**)

measuring tips for internal screw thread micrometer (optional)



zero block (optional)



MEASURING TIPS FOR INTERNAL SCREW THREAD MICROMETER

Metric and unified screw (60° thread angle)

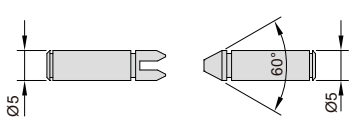
Code	Pitch
7321-T11	0.4-0.5mm/64-48TPI
7321-T12	0.6-0.9mm/44-28TPI
7321-T13	1-1.75mm/24-14TPI
7321-T14	2-3mm/13-9TPI
7321-T15	3.5-5mm/8-5TPI
7321-T16	5.5-7mm/4.5-3.5TPI
7321-T1S	6 pairs/set, including all above tips

Whitworth screw (55° thread angle)

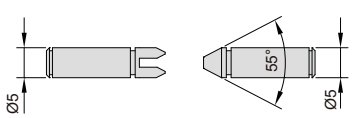
Code	Pitch
7321-T21	60-48TPI
7321-T22	48-40TPI
7321-T23	40-32TPI
7321-T24	32-24TPI
7321-T25	24-18TPI
7321-T26	18-14TPI
7321-T27	14-10TPI
7321-T28	10-7TPI
7321-T29	7-4.5TPI
7321-T210	4.5-3.5TPI
7321-T2S	10 pairs/set, including all above tips

7321-T1S

Unit: mm



60° thread angle



55° thread angle

- Supplied in pair
- Suitable for **3226** series

BORE GAGE FOR SMALL HOLES

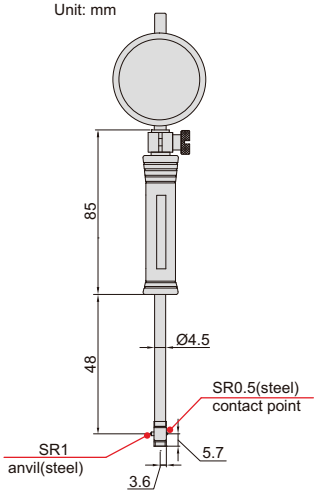
ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

2852-10

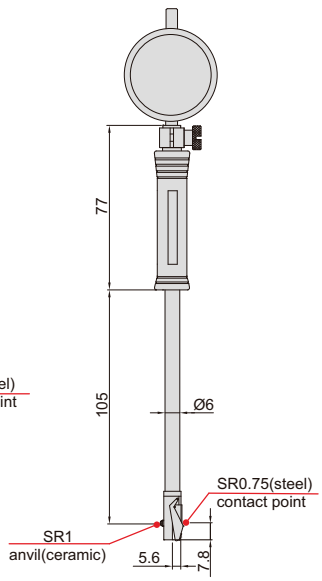
2152-18

DATA OUTPUT

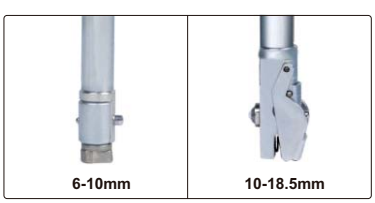
Unit: mm



6-10mm

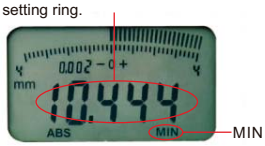


10-18.5mm

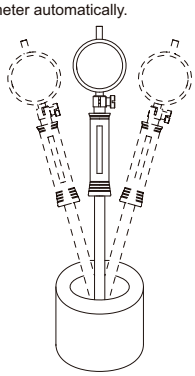


6-10mm | **10-18.5mm**

Read the diameter directly, after imputing the size of setting ring.



The minimum value tracking function can find the diameter automatically.



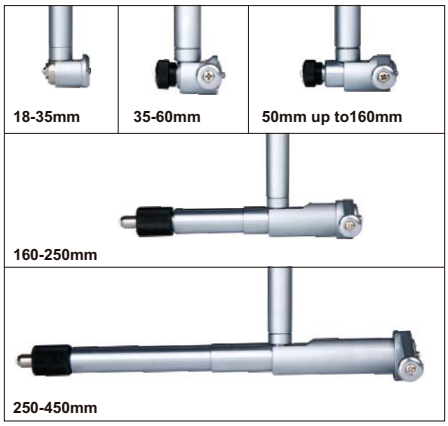
- Optional accessory: setting ring (code **6312**)

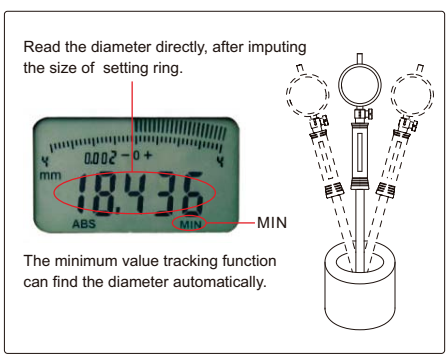
Code	Range	Indicator	Accuracy	Repeatability
2852-10	6-10mm	dial indicator, range 3mm, graduation 0.01mm(code **2311-3F**)	±0.012mm	0.003mm
2852-18	10-18.5mm		±0.012mm	0.003mm

Code	Range	Indicator	Accuracy	Repeatability
2152-10	6-10mm	digital indicator, range 12.7mm/0.5", resolution 0.002mm/0.0001" (code **2108-10F**)	±0.012mm	0.003mm
2152-18	10-18.5mm		±0.012mm	0.003mm

BORE GAGE

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS



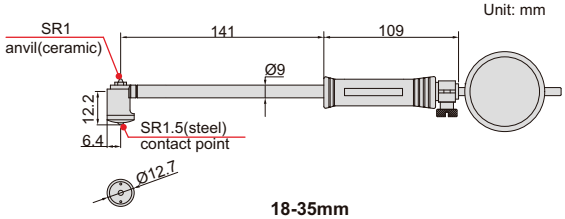


- Optional accessory:
  setting ring (code **6312**), long handle (code **7351**)

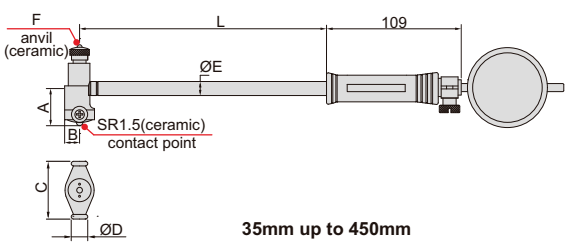
Code	Range	Indicator	Accuracy	Repeatability
2322-35A	18-35mm	dial indicator, range 10mm, graduation 0.01mm (code **2308-10FA**)	±0.015mm	0.003mm
2322-60A	35-60mm		±0.018mm	0.003mm
2322-100A	50-100mm		±0.018mm	0.003mm
2322-160A	50-160mm		±0.018mm	0.003mm
2322-161A	100-160mm		±0.018mm	0.003mm
2322-250A	160-250mm		±0.018mm	0.003mm
2322-450A	250-450mm		±0.018mm	0.003mm

Code	Range	Indicator	Accuracy	Repeatability
2122-35A	18-35mm	digital indicator, range 12.7mm/0.5", resolution 0.002mm/0.0001" (code **2108-10F**)	±0.015mm	0.003mm
2122-60A	35-60mm		±0.018mm	0.003mm
2122-100A	50-100mm		±0.018mm	0.003mm
2122-160A	50-160mm		±0.018mm	0.003mm
2122-161A	100-160mm		±0.018mm	0.003mm
2122-250A	160-250mm		±0.018mm	0.003mm
2122-450A	250-450mm		±0.018mm	0.003mm

Unit: mm



18-35mm



35mm up to 450mm

(mm)

Range	A	B	C	ØD	ØE	F	L
35-60mm	12.2	6.4	27	13	12.8	SR2	141
50-100mm	26	9	27	13	12.8	SR2	141
50-160mm	26	9	35	13	12.8	SR2	141
100-160mm	26	9	35	13	12.8	SR2	141
160-250mm	56.5	13	74.5	15	12.8	SR2	241
250-450mm	86.5	15	101.5	15	14.5	SR2.5	241

BORE GAGE SET

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

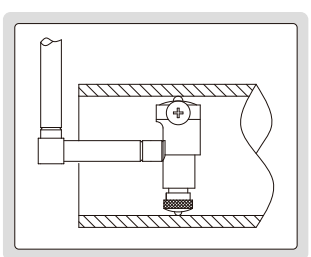
2824-S3

- Optional accessory: setting ring (code **6312**)

Code	Range	Indicator	Bore gages included	Accuracy	Repeatability
2824-S3	18-160mm	dial indicator code **2308-10FA** range 10mm, graduation 0.01mm	18-35mm 35-60mm 50-160mm	18-35mm ±0.015mm 35-60mm ±0.018mm 50-160mm ±0.018mm	0.003mm

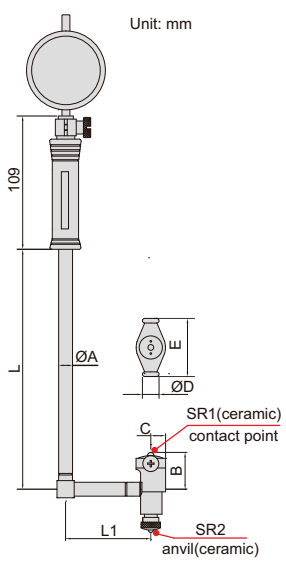
BORE GAGE

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS



2827-160A

Unit: mm



- Optional accessory: setting ring (code **6312**)

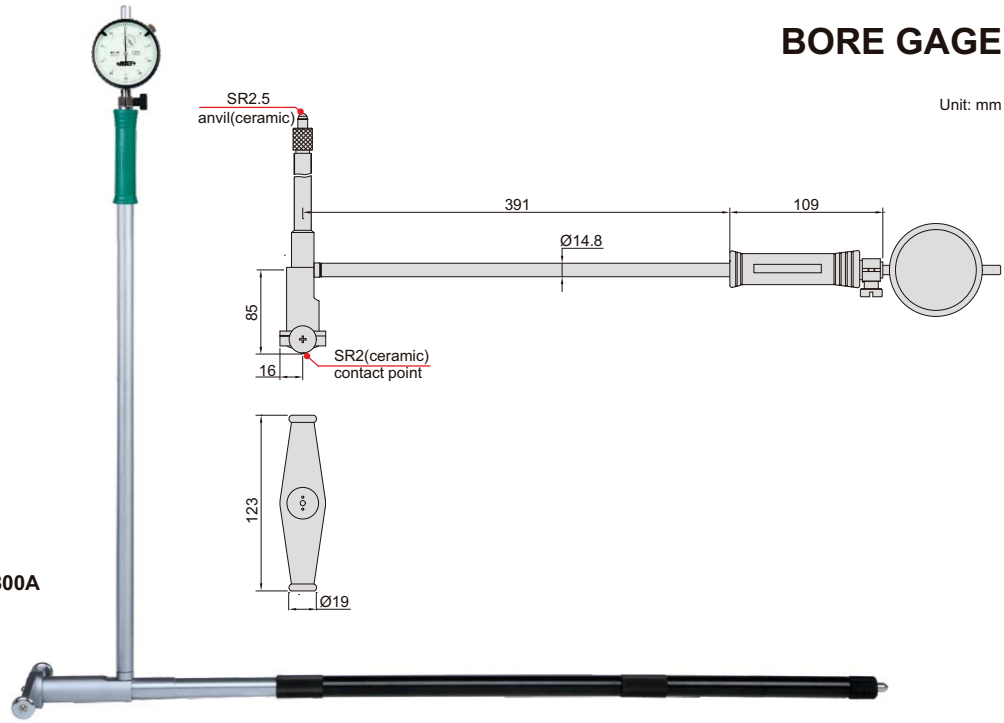
Code	Range	Indicator	Accuracy	Repeatability
2827-160A	50-160mm	dial indicator code **2308-10FA** range 10mm, graduation 0.01mm	±0.018mm	0.003mm
2827-250A	160-250mm		±0.018mm	0.003mm
2827-450A	250-450mm		±0.018mm	0.003mm

(mm)

Range	ØA	B	C	ØD	E	L	L1
50-160mm	12.8	28.5	9.2	13	35	141	76.2
160-250mm	14.5	62.0	12.7	13	74.5	391	100
250-450mm	14.5	91.5	15.0	15	101.5	391	100

BORE GAGE

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS



Unit: mm

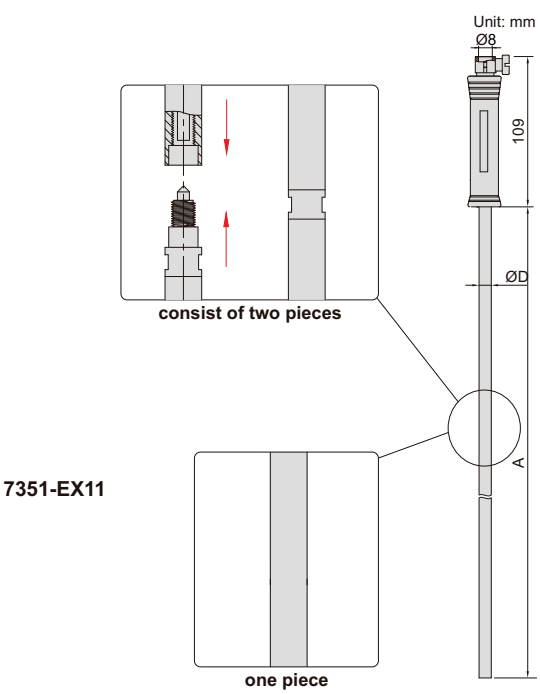
Code	Range	Indicator	Accuracy	Repeatability
2828-800A	400-800mm	dial indicator code **2308-10FA** range 10mm, graduation 0.01mm	±0.025mm	0.003mm

LONG HANDLE

- To assist deep-hole measurement
- Can be used for bore gages **2322** and **2122**

(mm)

Code	Applicable bore gages	A	ØD	Remark
7351-EX11	35-60mm, 50-100mm, 50-160mm, 100-160mm	475	13	one piece
7351-EX12		980	13	
7351-EX13		1480	14.5	consist of two pieces
7351-EX14		1980	14.5	
7351-EX21	160-250mm, 250-450mm	480	14.5	one piece
7351-EX22		980	14.5	
7351-EX23		1480	14.5	consist of two pieces
7351-EX24		1980	14.5	



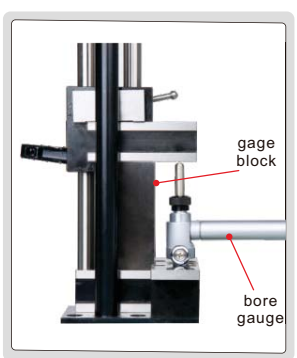
ANVIL FOR BORE GAGES

- For 2852, 2152, 2322, 2122, 2824, 2827

7350-160

Code	Applicable bore gages	Material of measuring face	Quantity per set	Measuring range of anvil (mm)
7350-10	6-10mm	steel	9pcs	6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10
7350-18	10-18.5mm	ceramic	9pcs	10, 11, 12, 13, 14, 15, 16, 17, 18
7350-35	18-35mm	ceramic	9pcs	18, 20, 22, 24, 26, 28, 30, 32, 34
7350-60	35-60mm	ceramic	6pcs	35, 40, 45, 50, 55, 60
7350-100	50-100mm	ceramic	11pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100
7350-160	50-160mm	ceramic	12pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105
7350-161	100-160mm	ceramic	12pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105
7350-250	160-250mm	ceramic	5pcs	160, 170, 180, 190, 200
7350-450	250-450mm	ceramic	5pcs	250, 260, 270, 280, 290

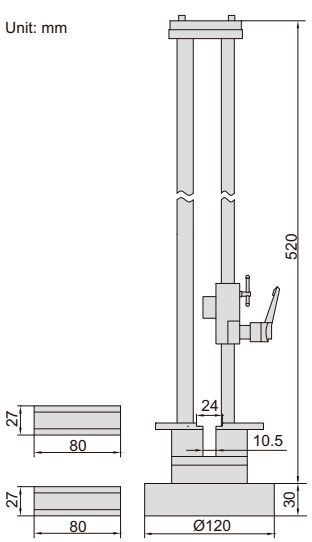
BORE GAGE SETTER



- Used together with gage blocks to set bore gages

2395-400

Unit: mm



Code	Setting range
2395-400	18-400mm

SETTING RING

6312-20

- For zero setting of inside micrometers, three points internal micrometers and bore gages
- Deviation (difference between the ordered size and the size marked on the setting ring when supplied): For example, the ordered size is Ø10.125mm, the size marked on the setting ring when supplied may be Ø10.127mm
- Meet DIN2250-1:2008

CAN SUPPLY CUSTOM SETTING RING FROM Ø1.500MM TO Ø315.000MM, FOR EXAMPLE, Ø17.085MM

INSIZE MANUFACTURER INSPECTION CERTIFICATE

Manufacturer Inspection Certificate

INSIZE **Inspection Certificate**

Unit: mm

Product name	Setting Ring
Code No.	6312-20
Serial No.	0512110112
Standard temperature	20°
Traceable to	Germany 10339/D-K-15015-01-02/2012-09
Judgement	Passed
Inspector	Si Yang

Marked Size	19.998	
Calibration Results	Diameter	at 0°	at 90°
	Top	19.9987	19.9985
	Middle	19.9984	19.9985
	Bottom	19.9985	19.9986
	Average	19.9985	
	Cylindricity	0.0003	
	Roundness	0.0002	

Diameter**	Deviation	Roundness and cylindricity
Ø1.5-3mm	±2.0μm	0.3μm
Ø3-10mm	±2.0μm	0.4μm
Ø10-18mm	±3.0μm	0.5μm
Ø18-25mm	±3.0μm	0.6μm
Ø25-30mm	±4.0μm	0.6μm
Ø30-50mm	±4.0μm	0.7μm
Ø50-80mm	±4.0μm	0.8μm
Ø80-100mm	±4.0μm	1.0μm
Ø100-120mm	±5.0μm	1.0μm
Ø120-180mm	±6.0μm	1.2μm
Ø180-250mm	±7.0μm	1.4μm
Ø250-315mm	±8.0μm	1.6μm

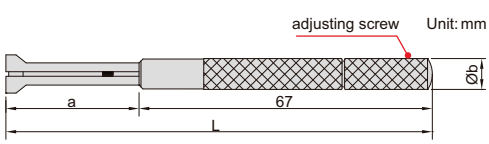
**For example Ø3-10mm means Ø3mm<Ød≤Ø10mm

Code	Size	Code	Size	Code	Size	Code	Size	Code	Size
6312-1D5*	Ø1.5mm	6312-15*	Ø15mm	6312-29*	Ø29mm	6312-43*	Ø43mm	6312-80*	Ø80mm
6312-2*	Ø2mm	6312-16*	Ø16mm	6312-30*	Ø30mm	6312-44*	Ø44mm	6312-85*	Ø85mm
6312-3*	Ø3mm	6312-17*	Ø17mm	6312-31*	Ø31mm	6312-45*	Ø45mm	6312-87*	Ø87mm
6312-4*	Ø4mm	6312-18*	Ø18mm	6312-32*	Ø32mm	6312-46*	Ø46mm	6312-90*	Ø90mm
6312-5*	Ø5mm	6312-19*	Ø19mm	6312-33*	Ø33mm	6312-47*	Ø47mm	6312-95*	Ø95mm
6312-6*	Ø6mm	6312-20*	Ø20mm	6312-34*	Ø34mm	6312-48*	Ø48mm	6312-100*	Ø100mm
6312-7*	Ø7mm	6312-21*	Ø21mm	6312-35*	Ø35mm	6312-49*	Ø49mm	6312-125*	Ø125mm
6312-8*	Ø8mm	6312-22*	Ø22mm	6312-36*	Ø36mm	6312-50*	Ø50mm	6312-150*	Ø150mm
6312-9*	Ø9mm	6312-23*	Ø23mm	6312-37*	Ø37mm	6312-55*	Ø55mm	6312-175*	Ø175mm
6312-10*	Ø10mm	6312-24*	Ø24mm	6312-38*	Ø38mm	6312-60*	Ø60mm	6312-200*	Ø200mm
6312-11*	Ø11mm	6312-25*	Ø25mm	6312-39*	Ø39mm	6312-62*	Ø62mm	6312-225*	Ø225mm
6312-12*	Ø12mm	6312-26*	Ø26mm	6312-40*	Ø40mm	6312-65*	Ø65mm	6312-250*	Ø250mm
6312-13*	Ø13mm	6312-27*	Ø27mm	6312-41*	Ø41mm	6312-70*	Ø70mm	6312-275*	Ø275mm
6312-14*	Ø14mm	6312-28*	Ø28mm	6312-42*	Ø42mm	6312-75*	Ø75mm	6312-300*	Ø300mm

*Supplied with manufacturer inpection certificate

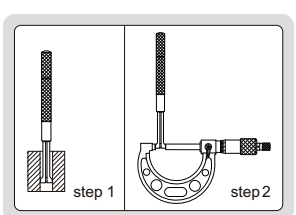
SMALL HOLE GAGE SET

4208-1



- 4 gages per set
- For small holes, slots and grooves, etc.
- Satin chrome finish

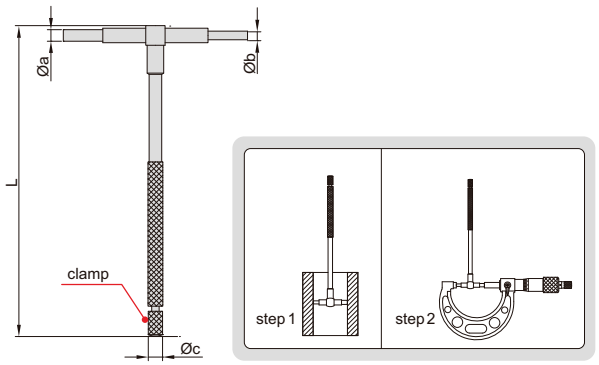
Code	Total range	Gages included
4208-1	3-13mm	3-5mm, 5-7.5mm, 7.5-10mm, 10-13mm



(mm)

Range	L	a	Øb
3-5mm	90	22.5	5.5
5-7.5mm	97.6	30	5.5
7.5-10mm	102.8	35	8.5
10-13mm	108	40	8.5

TELESCOPING GAGE SET



4206-1

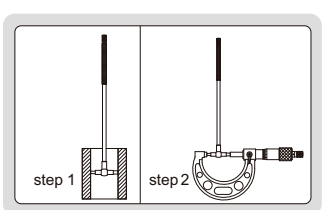
(mm)

Range	L	Øa	Øb	Øc
8-12.7mm	115	3.9	2.9	6.2
12.7-19mm	115	5.3	3.8	6.2
19-32mm	115	5.3	3.8	6.2
32-54mm	137	7.6	6.1	7.2
54-90mm	137	7.6	6.1	7.2
90-150mm	137	7.6	6.1	7.2

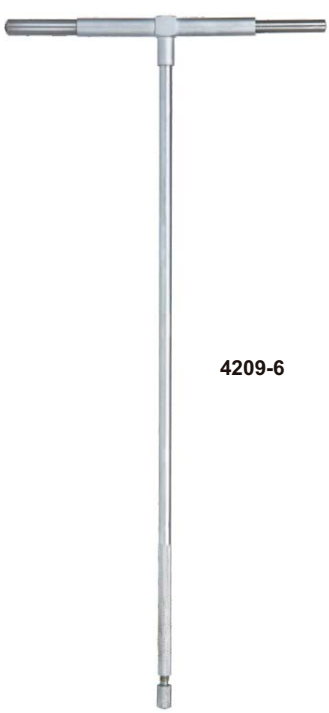
Code	Total range	Gages included
4206-1	8-150mm	8-12.7mm,12.7-19mm 19-32mm, 32-54mm 54-90mm, 90-150mm

- 6 gages per set
- For quick measurement of inside diameter of holes and width of slots
- Satin chrome finish

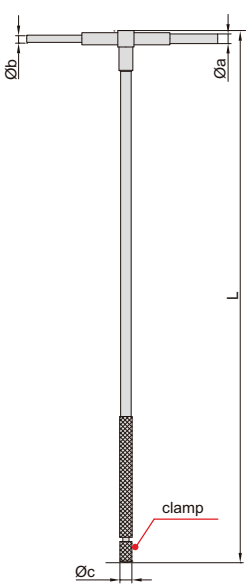
LONG HANDLE TELESCOPING GAGE



- For quick measurement of inside diameter of deep holes and width of slots
- Satin chrome finish



4209-6



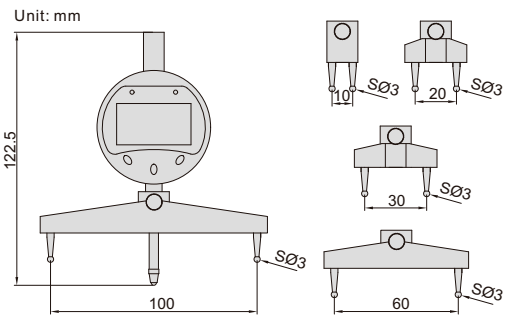
(mm)

Code	Range	L	Øa	Øb	Øc
4209-1	8-12.7mm	250	3.9	2.9	6.2
4209-2	12.7-19mm	250	5.3	3.8	6.2
4209-3	19-32mm	250	5.3	3.8	6.2
4209-4	32-54mm	300	7.6	6.1	7.2
4209-5	54-90mm	300	7.6	6.1	7.2
4209-6	90-150mm	300	7.6	6.1	7.2

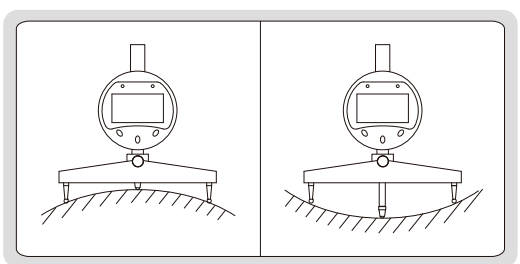
ATTENTION:
NO DATA OUTPUT

DIGITAL RADIUS GAGE

2183



- Measure radius of internal and external arcs
- Supplied with 5 jaws for different sizes of arc
- Battery CR2032



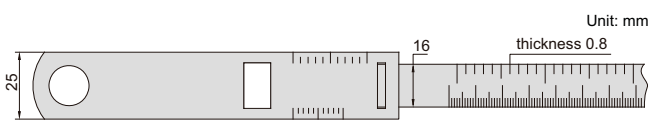
Code	Range of radius (R)	Resolution	Accuracy (mm)
2183	5-700mm/0.2-27.5"	0.005mm/0.00005"	±0.01R*

*R is the radius to be measured

ATTENTION:
BASIC MODEL

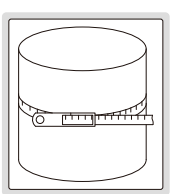
CIRCUMFERENCE TAPE

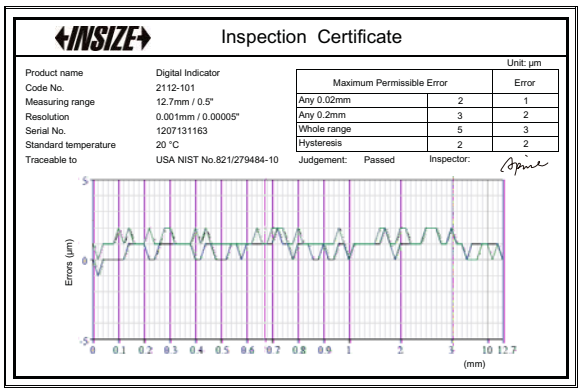
7114-950



- Measure diameter and circumference of pipes, trees, tires, etc.
- Laser engraved scale
- Made of stainless steel

Code	Circumference range	Diameter range	Graduation	Accuracy	
				Circumference	Diameter
7114-950	60-950mm	Ø20-300mm	0.1mm	±1.5mm	±0.5mm
7114-2200	940-2200mm	Ø300-700mm	0.1mm	±1.5mm	±0.5mm
7114-3460	2190-3460mm	Ø700-1100mm	0.1mm	±1.5mm	±0.5mm





Inspection Certificate

Unit: μm

Product name	Digital Indicator
Code No.	2112-101
Measuring range	12.7mm / 0.5"
Resolution	0.001mm / 0.00005"
Serial No.	1207131163
Standard temperature	20 °C
Traceable to	USA NIST No.821/279484-10

Maximum Permissible Error		Error
Any 0.02mm	2	1
Any 0.2mm	3	2
Whole range	5	3
Hysteresis	2	2

Judgement: Passed Inspector:

Errors (μm)

(mm)

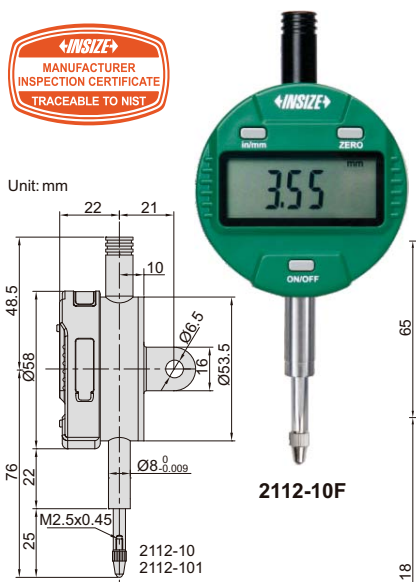
MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST USA, FOR DIAL INDICATORS, DIGITAL INDICATORS AND DIAL TEST INDICATORS

DIGITAL INDICATOR

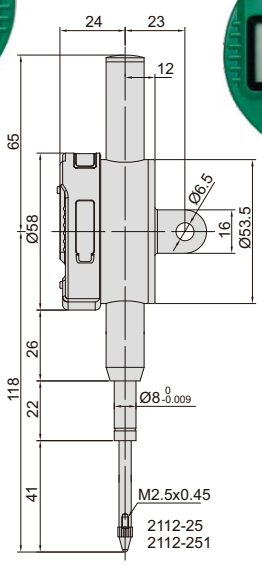
DATA OUTPUT

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

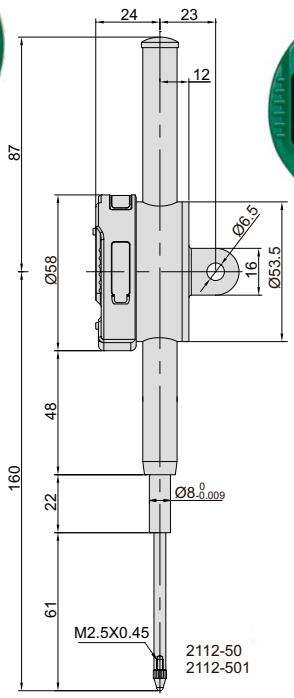
Unit: mm



2112-10F



2112-251F



2112-501F

spindle lift knob is included

- Button function: on/off, inch/mm, zero
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**), backs (page 135), contact points (page 131~134)

Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2112-101F*	12.7mm/0.5"	5μm	2μm	flat back
2112-251F*	25.4mm/1"	5μm	3μm	flat back
2112-501F*	50.8mm/2"	6μm	3μm	flat back
2112-101*	12.7mm/0.5"	5μm	2μm	lug back
2112-251*	25.4mm/1"	5μm	3μm	lug back
2112-501*	50.8mm/2"	6μm	3μm	lug back

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Remark
2112-10F *	12.7mm/0.5"	20μm	10μm	flat back
2112-25F *	25.4mm/1"	20μm	10μm	flat back
2112-50F *	50.8mm/2"	30μm	10μm	flat back
2112-10 *	12.7mm/0.5"	20μm	10μm	lug back
2112-25 *	25.4mm/1"	20μm	10μm	lug back
2112-50 *	50.8mm/2"	30μm	10μm	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

DIGITAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

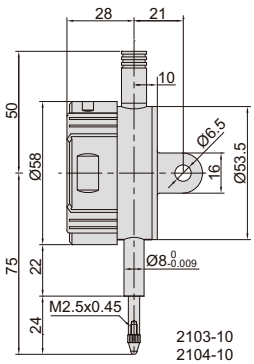
DATA OUTPUT

2103-10F

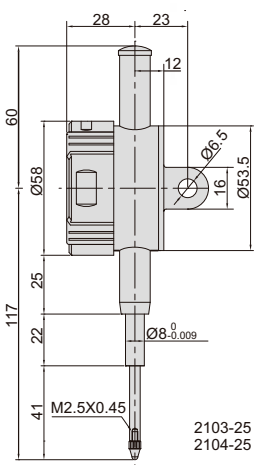
2104-25F

2103-50F

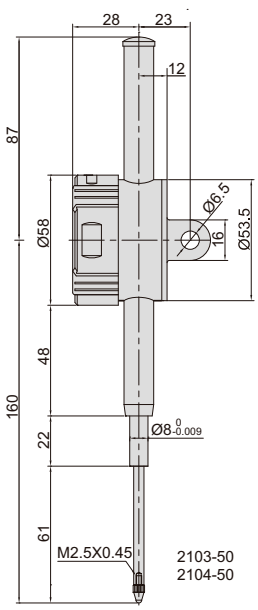
Unit: mm



2103-10
2104-10



2103-25
2104-25



2103-50
2104-50

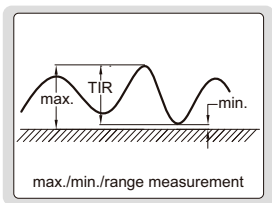
Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2103-10F*	12.7mm/0.5"	5μm	2μm	flat back
2103-25F*	25.4mm/1"	5μm	3μm	flat back
2103-50F*	50.8mm/2"	6μm	3μm	flat back
2103-10*	12.7mm/0.5"	5μm	2μm	lug back
2103-25*	25.4mm/1"	5μm	3μm	lug back
2103-50*	50.8mm/2"	6μm	3μm	lug back

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Remark
2104-10F*	12.7mm/0.5"	20μm	10μm	flat back
2104-25F*	25.4mm/1"	20μm	10μm	flat back
2104-50F*	50.8mm/2"	30μm	10μm	flat back
2104-10*	12.7mm/0.5"	20μm	10μm	lug back
2104-25*	25.4mm/1"	20μm	10μm	lug back
2104-50*	50.8mm/2"	30μm	10μm	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA



max./min./range measurement

spindle lift knob is included

display can be rotated by 320°

- Reading in digit and analog
- Display can be rotated by 320°
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**), backs (page 135), contact points (page 131~134)

METRIC DIGITAL INDICATOR

DATA OUTPUT

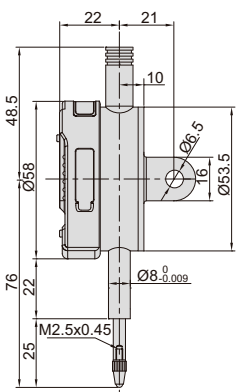
MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

2116-10F

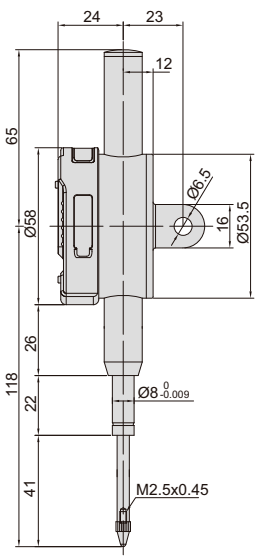
2116-251F

2116-501F

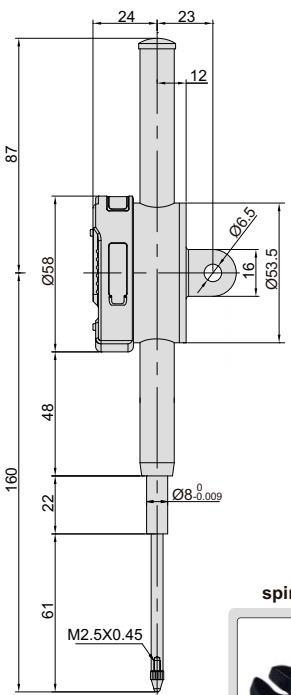
Unit: mm



2116-10
2116-101



2116-25
2116-251



2116-50
2116-501

spindle lift knob is included

- Button function: on/off, +/-, zero
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**), backs (page 135), contact points (page 131~134)

Resolution 0.001mm

Code	Range	Accuracy	Hysteresis	Remark
2116-101F*	12.7mm	5μm	2μm	flat back
2116-251F*	25.4mm	5μm	3μm	flat back
2116-501F*	50.8mm	6μm	3μm	flat back
2116-101*	12.7mm	5μm	2μm	lug back
2116-251*	25.4mm	5μm	3μm	lug back
2116-501*	50.8mm	6μm	3μm	lug back

Resolution 0.01mm

Code	Range	Accuracy	Hysteresis	Remark
2116-10F*	12.7mm	20μm	10μm	flat back
2116-25F*	25.4mm	20μm	10μm	flat back
2116-50F*	50.8mm	30μm	10μm	flat back
2116-10*	12.7mm	20μm	10μm	lug back
2116-25*	25.4mm	20μm	10μm	lug back
2116-50*	50.8mm	30μm	10μm	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

WATERPROOF DIGITAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

DATA OUTPUT

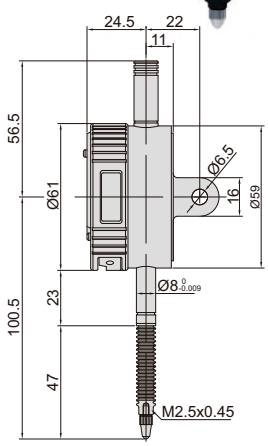
WATERPROOF

2115-10F

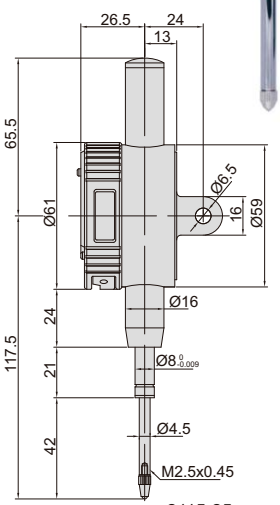
2115-25F

2115-50F

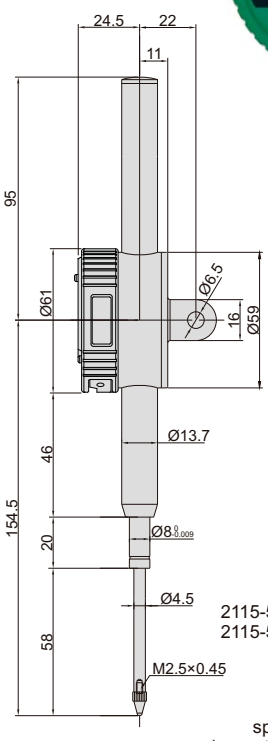
Unit: mm



2115-10
2115-101



2115-25
2115-251



2115-50
2115-501

Resolution 0.001mm/0.00005"

Code	Range	Dust/waterproof	Accuracy	Hysteresis	Remark
2115-101F*	12.7mm/0.5"	IP65	5μm	2μm	flat back
2115-251F*	25.4mm/1"	IP54	5μm	3μm	flat back
2115-501F*	50.8mm/2"	IP54	6μm	3μm	flat back
2115-101*	12.7mm/0.5"	IP65	5μm	2μm	lug back
2115-251*	25.4mm/1"	IP54	5μm	3μm	lug back
2115-501*	50.8mm/2"	IP54	6μm	3μm	lug back

Resolution 0.01mm/0.0005"

Code	Range	Dust/waterproof	Accuracy	Hysteresis	Remark
2115-10F*	12.7mm/0.5"	IP65	20μm	10μm	flat back
2115-25F*	25.4mm/1"	IP54	20μm	10μm	flat back
2115-50F*	50.8mm/2"	IP54	30μm	10μm	flat back
2115-10*	12.7mm/0.5"	IP65	20μm	10μm	lug back
2115-25*	25.4mm/1"	IP54	20μm	10μm	lug back
2115-50*	50.8mm/2"	IP54	30μm	10μm	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

spindle lift knob is included
(except **2115-101/101F, 2115-10/10F**)

- Dust/waterproof
- Button function: on/off, zero, mm/inch
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40**, **7302-SPC3A**, **7305-SPC1A**), backs (page 135), contact points (page 131~134)

NO AUTO POWER OFF DIGITAL INDICATOR

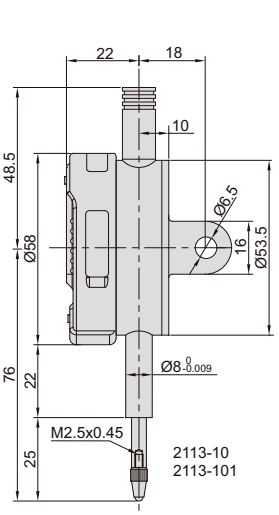
ONE BATTERY FOR 4000 WORKING HOURS

DATA OUTPUT

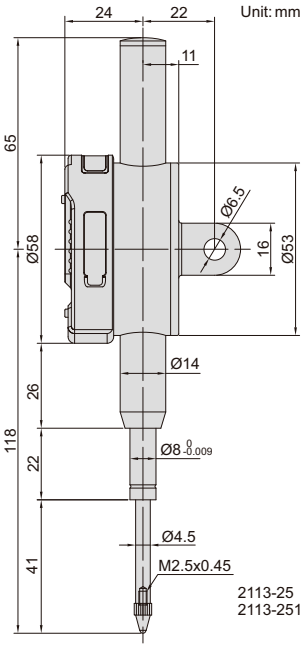
2113-10F

2113-251F

- No auto power off, tracking the deformation of mould and steel structure for a long time
- Low power consumption
- Button function: on/off, zero, inch/mm
- CR2032 battery
- Data output
- Optional accessory: backs (page 135), contact points (page 131~134), data output cable (code **7305-SPC1A**)



Unit: mm



spindle lift knob is included

data output cable (optional)

Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2113-101F*	12.7mm/0.5"	5μm	2μm	flat back
2113-251F*	25.4mm/1"	5μm	3μm	flat back
2113-101*	12.7mm/0.5"	5μm	2μm	lug back
2113-251*	25.4mm/1"	5μm	3μm	lug back

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Remark
2113-10F *	12.7mm/0.5"	20μm	10μm	flat back
2113-25F *	25.4mm/1"	20μm	10μm	flat back
2113-10 *	12.7mm/0.5"	20μm	10μm	lug back
2113-25 *	25.4mm/1"	20μm	10μm	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

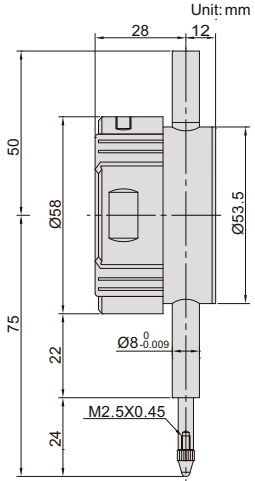
DIGITAL INDICATOR FOR BORE GAGES

- Specially designed for bore gages
- The minimum value tracking function can find the diameter automatically
- Read the diameter directly, after imputing the size of setting ring
- Reading in digit and analog
- Display can be rotated by 320°
- Button function: minimum value tracking, calibration, data preset, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**), backs (page 135), contact points (page 131~134)

2108-10F

DATA OUTPUT

Unit: mm



Code	Range	Resolution	Accuracy	Hysteresis	Remark
2108-10F*	12.7mm/0.5"	0.002mm/0.0001"	20μm	10μm	flat back
2108-101F*	12.7mm/0.5"	0.001mm/0.00005"	5μm	2μm	flat back

*Supplied with manufacturer inspection certificate traceable to NIST USA

COMPACT DIGITAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

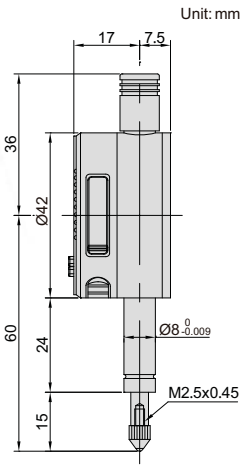
DATA OUTPUT

- Button function:
  in/mm: short press for inch/metric conversion
  long press to change measuring direction
  ABS: short press for absolute/incremental measurement
  long press to preset data
  0/ON: short press to turn on when power is off
  short press to set zero when power is on
  long press to turn off
- CR1632 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**), contact points (page 131~134)

Code	Range	Resolution	Accuracy	Hysteresis	Remark
2114-5F*	5mm/0.2"	0.01mm/0.0005"	20μm	10μm	flat back
2114-51F*	5mm/0.2"	0.001mm/0.00005"	5μm	2μm	flat back

*Supplied with manufacturer inspection certificate traceable to NIST USA

2114-51F



LARGE STROKE DIGITAL INDICATOR

DATA OUTPUT

spindle lift knob is included

- Button function: on/off, zero, mm/inch
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40**, **7302-SPC3A**, **7305-SPC1A**), backs (page 135), contact points (page 131~134)

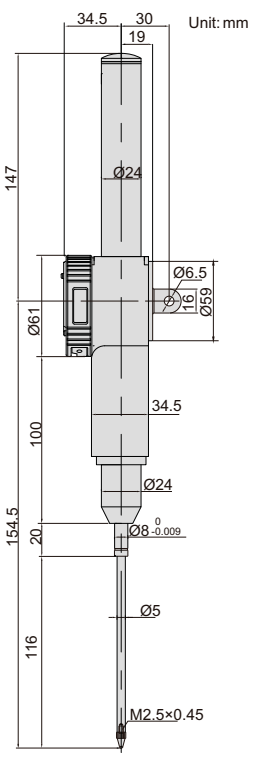
Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Remark
2117-100	100mm/4"	30μm	10μm	lug back

Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2117-1001	100mm/4"	9μm	3μm	lug back

2117-100

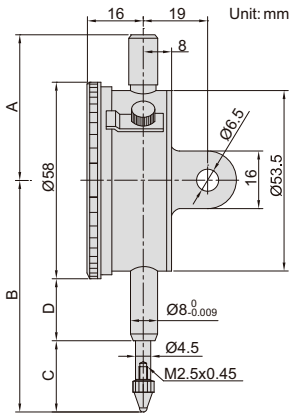


PRECISION DIAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

JEWELED BEARING

2313-1FA



- Graduation: 0.001mm
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 135), contact points (page 131~134)

(mm)

Code	Range	Accuracy	Hysteresis	Range/rev	Dial reading	Remark	A	B	C	D
2313-1FA*	1mm	5μm	2μm	0.2mm	0-100-0	flat back	45	62.5	19.5	15
2313-2FA*	2mm	8μm	2.5μm	0.2mm	0-100-0	flat back	45	62.5	19.5	15
2313-1A*	1mm	5μm	2μm	0.2mm	0-100-0	lug back	45	62.5	19.5	15
2313-2A*	2mm	8μm	2.5μm	0.2mm	0-100-0	lug back	45	62.5	19.5	15

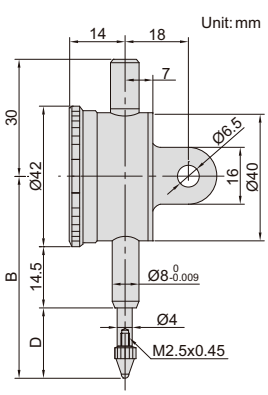
*Supplied with manufacturer inspection certificate traceable to NIST USA

COMPACT DIAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

JEWELED BEARING

2311-5F



- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: backs (page 135), contact points (page 131~134)

(mm)

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Remark	B	D
2311-3F*	3mm	0.01mm	14μm	3μm	0.5mm	0-50	flat back	46	10.5
2311-5F*	5mm	0.01mm	16μm	3μm	0.5mm	0-50	flat back	48	12.5
2311-3*	3mm	0.01mm	14μm	3μm	0.5mm	0-50	lug back	46	10.5
2311-5*	5mm	0.01mm	16μm	3μm	0.5mm	0-50	lug back	48	12.5

*Supplied with manufacturer inspection certificate traceable to NIST USA

DIAL INDICATOR

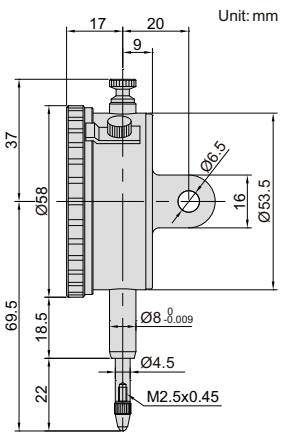
carton box

2301-10

ATTENTION:
PROMOTION MODEL

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

- Jeweled bearing
- Supplied with limit hands and bezel clamp
- Packed in carton box
- Optional accessory: backs (page 135), contact points (page 131~134)



Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Remark
2301-10*	10mm	0.01mm	17μm	3μm	1mm	0-100	lug back
2301-10F*	10mm	0.01mm	17μm	3μm	1mm	0-100	flat back

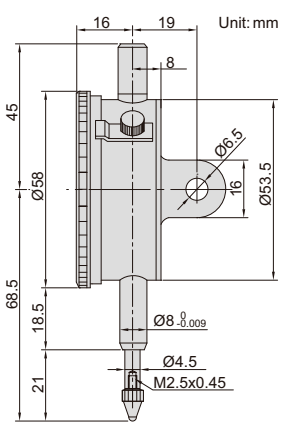
*Supplied with manufacturer inspection certificate traceable to NIST USA

DIAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

JEWELED BEARING

2308-10FA



- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 135), contact points (page 131~134)

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Remark
2308-3FA*	3mm	0.01mm	14μm	3μm	1mm	0-100	flat back
2308-5FA*	5mm	0.01mm	16μm	3μm	1mm	0-100	flat back
2308-10FA*	10mm	0.01mm	17μm	3μm	1mm	0-100	flat back
2308-3A*	3mm	0.01mm	14μm	3μm	1mm	0-100	lug back
2308-5A*	5mm	0.01mm	16μm	3μm	1mm	0-100	lug back
2308-10A*	10mm	0.01mm	17μm	3μm	1mm	0-100	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

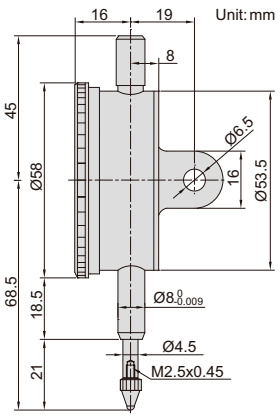
SHOCKPROOF DIAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

SHOCK PROOF

JEWELED BEARING

2314-10FA



- Shockproof
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 135), contact points (page 131~134)

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Remark
2314-3FA*	3mm	0.01mm	14μm	3μm	1mm	0-100	flat back
2314-5FA*	5mm	0.01mm	16μm	3μm	1mm	0-100	flat back
2314-10FA*	10mm	0.01mm	20μm	3μm	1mm	0-100	flat back
2314-3A*	3mm	0.01mm	14μm	3μm	1mm	0-100	lug back
2314-5A*	5mm	0.01mm	16μm	3μm	1mm	0-100	lug back
2314-10A*	10mm	0.01mm	20μm	3μm	1mm	0-100	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

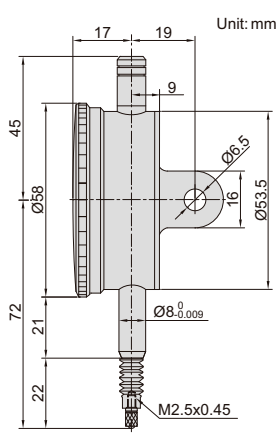
WATERPROOF DIAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

IP54 WATERPROOF

JEWELED BEARING

2324-10F



- IP54 dust/waterproof
- Jeweled bearing

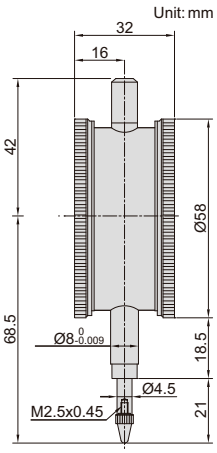
Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Remark
2324-10F*	10mm	0.01mm	17μm	3μm	1mm	0-100	flat back
2324-10*	10mm	0.01mm	17μm	3μm	1mm	0-100	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

DOUBLE FACE DIAL INDICATOR

front back

2328-10



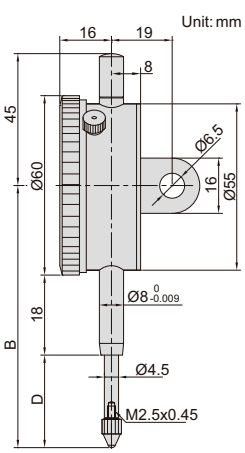
- Read from both sides
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: contact points (page 131~134)

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading
2328-10*	10mm	0.01mm	17μm	3μm	1mm	0-100

*Supplied with manufacturer inspection certificate traceable to NIST USA

DIAL INDICATOR

2318-30F



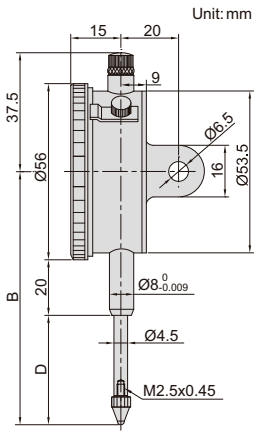
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 135), contact points (page 131~134)

(mm)

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Remark	B	D
2318-10F	10mm	0.1mm	40μm	20μm	10mm	0-10	flat back	70	20
2318-20F	20mm	0.1mm	50μm	20μm	10mm	0-10	flat back	85	35
2318-25F	25mm	0.1mm	60μm	20μm	10mm	0-10	flat back	85	35
2318-30F	30mm	0.1mm	60μm	20μm	10mm	0-10	flat back	90	40
2318-10	10mm	0.1mm	40μm	20μm	10mm	0-10	lug back	70	20
2318-20	20mm	0.1mm	50μm	20μm	10mm	0-10	lug back	85	35
2318-25	25mm	0.1mm	60μm	20μm	10mm	0-10	lug back	85	35
2318-30	30mm	0.1mm	60μm	20μm	10mm	0-10	lug back	90	40

DIAL INDICATOR

2310-30FA



- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 135), contact points (page 131~134)

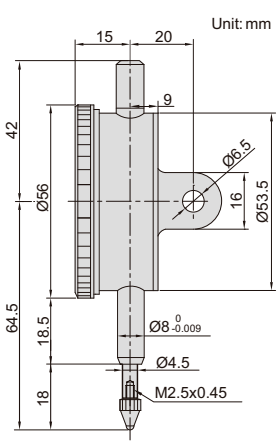
Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Remark	B	D
2310-20FA*	20mm	0.01mm	25μm	5μm	1mm	0-100	flat back	83mm	35mm
2310-30FA*	30mm	0.01mm	35μm	7μm	1mm	0-100	flat back	88mm	40mm
2310-20A*	20mm	0.01mm	25μm	5μm	1mm	0-100	lug back	83mm	35mm
2310-30A*	30mm	0.01mm	35μm	7μm	1mm	0-100	lug back	88mm	40mm

*Supplied with manufacturer inspection certificate traceable to NIST USA

ONE REVOLUTION DIAL INDICATOR

SHOCK PROOF

2316-05F



- Shock proof
- Optional accessory: backs (page 135), contact points (page 131~134)

Code	Range	Graduation	Accuracy	Hysteresis	Dial reading	Remark
2316-05F*	0.5mm	0.01mm	9μm	3μm	25-0-25	flat back
2316-1F*	1mm	0.01mm	9μm	3μm	50-0-50	flat back
2316-05*	0.5mm	0.01mm	9μm	3μm	25-0-25	lug back
2316-1*	1mm	0.01mm	9μm	3μm	50-0-50	lug back

*Supplied with manufacturer inspection certificate traceable to NIST USA

JEWELED BEARING

SHOCK PROOF

DIAL INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

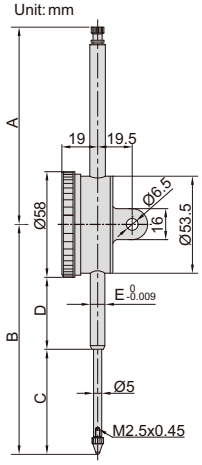
2309-50

- Shockproof
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: backs (page 135), contact points (page 131~134)

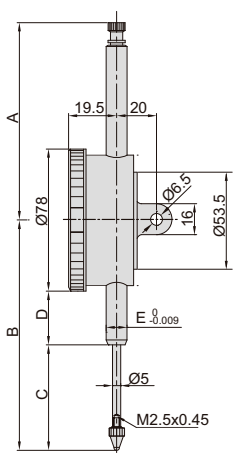
back of type B

stem clamp Ø10mm for 2309-100D

Unit: mm



type A



type B

(mm)

Code	Type	A	B	C	D	E
2309-30	A	37.5	89.5	40.9	19.5	Ø8
2309-30F	A	37.5	89.5	40.9	19.5	Ø8
2309-50	A	108.3	126.2	57.7	39.5	Ø8
2309-50D	B	108.3	126.2	57.7	29.5	Ø8
2309-80	A	138.4	168.4	88	51.3	Ø8
2309-80D	B	138.4	168.4	88	41.3	Ø8
2309-100D	B	167.6	207.8	108	60.8	Ø10

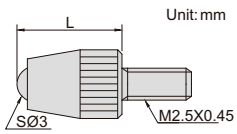
Code	Range	Graduation	Type	Accuracy	Hysteresis	Range/rev	Dial reading	Remark
2309-30F*	30mm	0.01mm	A	35μm	7μm	1mm	0-100	flat back
2309-30*	30mm	0.01mm	A	35μm	7μm	1mm	0-100	lug back
2309-50*	50mm	0.01mm	A	40μm	8μm	1mm	0-100	flat back with spare lug back
2309-50D*	50mm	0.01mm	B	40μm	8μm	1mm	0-100	flat back with spare lug back
2309-80	80mm	0.01mm	A	50μm	9μm	1mm	0-100	flat back with spare lug back
2309-80D	80mm	0.01mm	B	50μm	9μm	1mm	0-100	flat back with spare lug back
2309-100D	100mm	0.01mm	B	50μm	9μm	1mm	0-100	flat back with spare lug back

Note: 1) **2309-80, 2309-80D** and **2309-100D** can only be used vertically
2) **2309-100D** is supplied with stem clamp Ø10mm for magnetic stands (code **6200-60**, **6201-60**, **6202-80**, **6202-100**)
3) **2309-30** and **2309-30F** can not accept optional backs (page 135)

*Supplied with manufacturer inspection certificate traceable to NIST USA

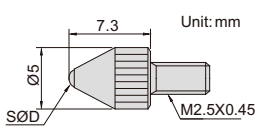
BALL POINT

6282-0101



Code	Material of measuring face	L (mm)
6282-0101	carbide	7.3
6282-0103	ceramic	7.3
6282-0104	carbide	8.3
6282-0106	carbide	12.1
6282-0107	carbide	14
6282-0108	carbide	15
6282-0109	ceramic	15
6282-0110	carbide	17
6282-0111	carbide	19.3
6282-0112	carbide	20
6282-0113	ceramic	20
6282-0114	carbide	22
6282-0115	carbide	25
6282-0116	ceramic	25
6282-0117	carbide	30
6282-0118	ceramic	30

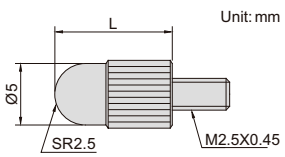
6282-0303



Code	Material of measuring face	SØD (mm)
6282-0301	steel	1
6282-0302	carbide	1.5
6282-0303	carbide	1.8
6282-0304	carbide	2.5
6282-0305	carbide	4

SHELL TYPE POINT

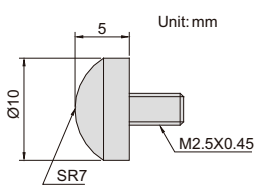
6282-0202



Code	Material of measuring face	L (mm)
6282-0202	steel	5
6282-0203	steel	10
6282-0205	steel	15
6282-0207	steel	20
6282-0208	steel	25
6282-0210	steel	30

SPHERICAL POINT

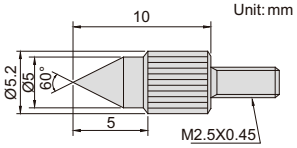
6282-0401



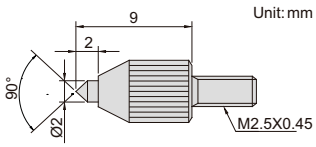
Code	Material of measuring face
6282-0401	steel

CONICAL POINT

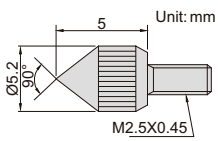
6282-0601



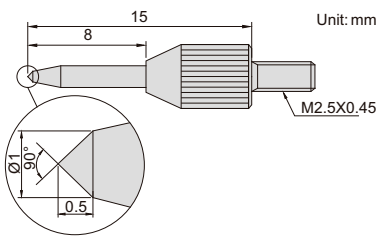
6282-0801

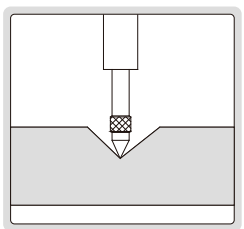


6282-0701



6282-0901

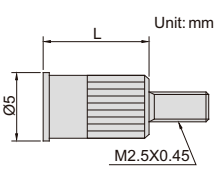


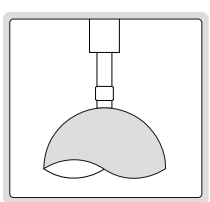


Code	Material of measuring face
6282-0601	steel
6282-0701	steel
6282-0801	steel
6282-0901	steel

FLAT POINT

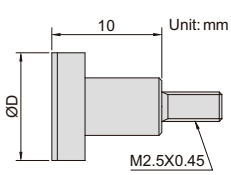
6282-1101





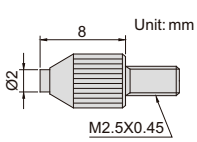
Code	Material of measuring face	L (mm)
6282-1101	steel	8
6282-1102	steel	10

6282-1201



Code	Material of measuring face	ØD (mm)
6282-1201	steel	10
6282-1202	steel	15
6282-1203	steel	20
6282-1204	steel	25
6282-1205	steel	30

6282-1301



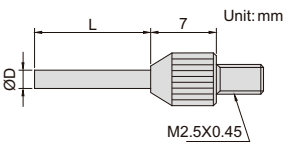
Code	Material of measuring face
6282-1301	carbide

NEEDLE POINT

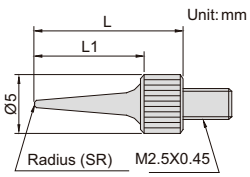
(mm)

Code	Material of measuring face	ØD	L
6282-1701	steel	0.45	3
6282-1702	steel	0.45	5
6282-1703	carbide	1	3
6282-1704	carbide	1	5
6282-1705	carbide	1	8
6282-1706	carbide	1	10
6282-1707	carbide	1	20
6282-1708	carbide	1	40
6282-1709	carbide	1.5	5
6282-1710	carbide	1.5	10
6282-1711	carbide	1.5	13
6282-1712	carbide	1.5	20
6282-1713	carbide	1.5	40
6282-1714	carbide	2	8
6282-1715	carbide	2	18
6282-1716	carbide	2	28
6282-1717	carbide	2	40

6282-1711

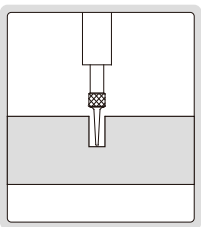


6282-1601



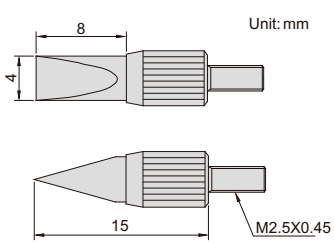
(mm)

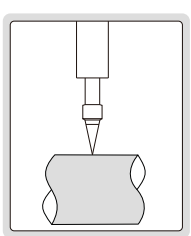
Code	Material of measuring face	L1	L	SR
6282-1601	steel	11	15	0.4
6282-1602	steel	13	17	0.2
6282-1603	steel	21	25	0.4
6282-1604	steel	31	35	0.4



KNIFE EDGE POINT

6282-1001

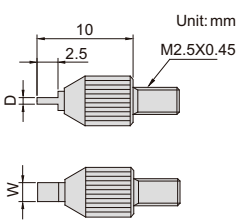


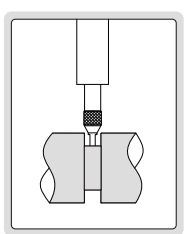


Code	Material of measuring face
6282-1001	steel

BLADE POINT

6282-1801



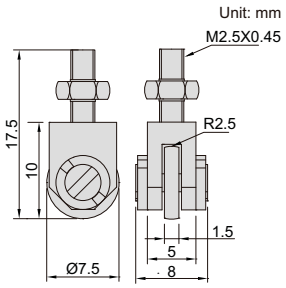


(mm)

Code	Material of measuring face	D	W
6282-1801	steel	0.4	2
6282-1802	steel	0.6	2
6282-1803	steel	1	4

ROLLER POINT

6282-1901



Code	Material of measuring face
6282-1901	steel

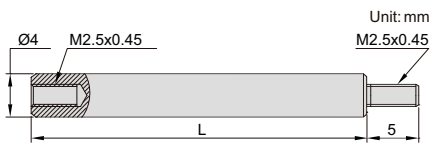
EXTENSION ROD

(mm)

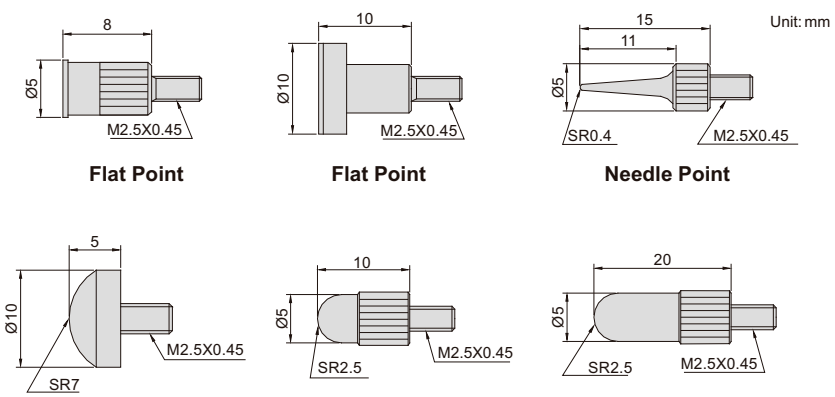
Code	Material	L
6282-2001	steel	10
6282-2002	steel	15
6282-2003	steel	20
6282-2004	steel	25
6282-2005	steel	30
6282-2006	steel	35
6282-2007	steel	40
6282-2008	steel	45
6282-2009	steel	50

Code	Material	L
6282-2010	steel	55
6282-2011	steel	60
6282-2012	steel	65
6282-2013	steel	70
6282-2014	steel	75
6282-2015	steel	80
6282-2016	steel	90
6282-2017	steel	100

6282-2010



POINT SET



6282-S6

Code	Material of measuring face
6282-S6	steel

SPINDLE LIFT KNOB

Code
7332

7332

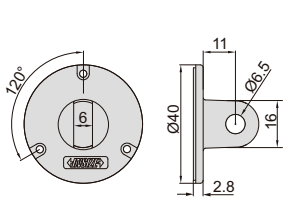
- For dial/digital indicators with spindle diameter Ø4.5mm or Ø5mm

LUG BACK

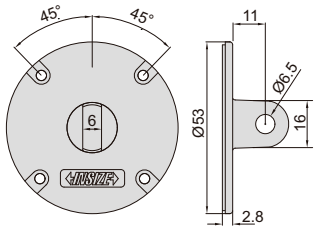
Code	For digital/dial indicators	Page
7330-L1	2311	125
7330-L2	2301	126
	2308	126
	2309 (except 2309-30, 2309-30F)	130
	2313	125
	2314	127
	2316	129
7330-L5	2103	120
	2104	120
	2108	123
	2112	119
	2113	123
	2115	122
	2116	121
	2117	124
7330-L6	2318	128
7330-L10	2310	129

7330-L2

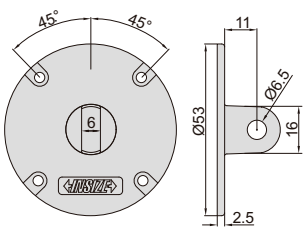
Unit: mm



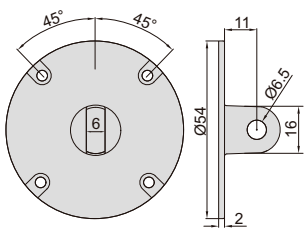
7330-L1



7330-L2 and 7330-L10



7330-L5



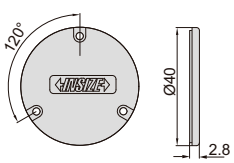
7330-L6

FLAT BACK

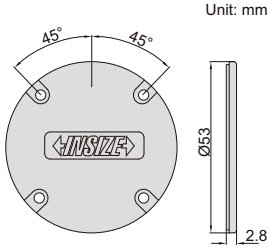
Code	For digital/dial indicators	Page
7330-F1	2311	125
7330-F2	2301	126
	2308	126
	2309 (except 2309-30, 2309-30F)	130
	2313	125
	2314	127
	2316	129
7330-F5	2103	120
	2104	120
	2108	123
	2112	119
	2113	123
	2115	122
	2116	121
	2117	124
7330-F6	2318	128
7330-F10	2310	129

7330-F2

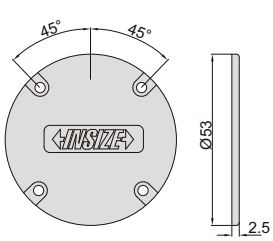
Unit: mm



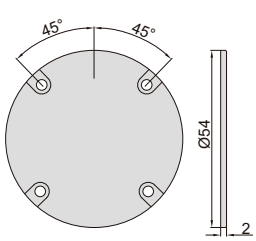
7330-F1



7330-F2 and 7330-F10



7330-F5



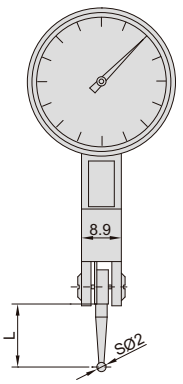
7330-F6

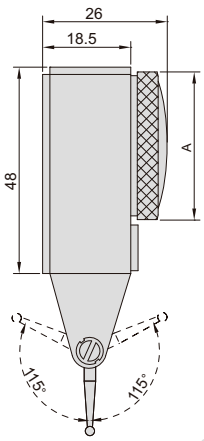
DIAL TEST INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

2380-08

Unit: mm

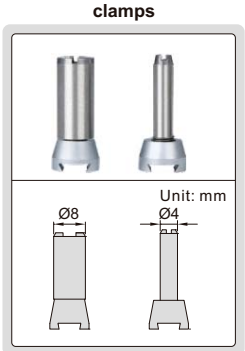




JEWELED BEARING

- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli (page 138)

clamps



(mm)

Code	Range	Graduation	Accuracy	Hysteresis	Dial reading	A	L
2380-08*	0.8mm	0.01mm	13µm	3µm	0-40-0	Ø30	13.5
2381-08*	0.8mm	0.01mm	13µm	3µm	0-40-0	Ø37.5	13.5
2380-02*	0.2mm	0.002mm	6µm	2µm	0-100-0	Ø30	12.5
2381-02*	0.2mm	0.002mm	6µm	2µm	0-100-0	Ø37.5	12.5

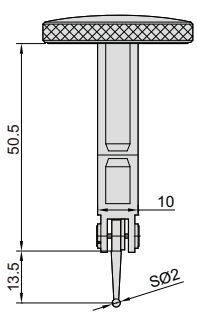
*Supplied with manufacturer inspection certificate traceable to NIST USA

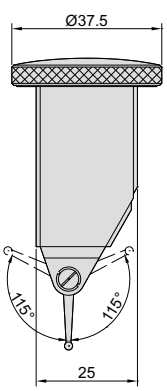
BACK PLUNGER TYPE DIAL TEST INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

2398-08

Unit: mm

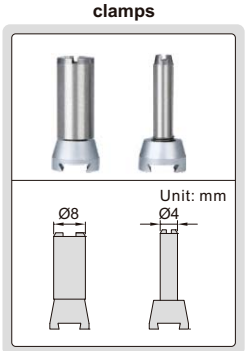




JEWELED BEARING

- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli (page 138)

clamps

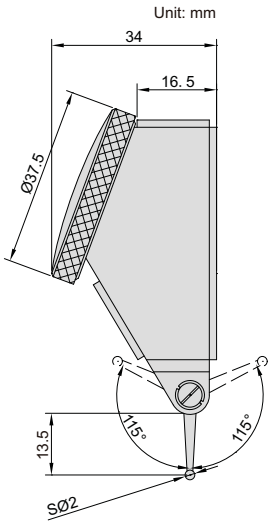


Code	Range	Graduation	Accuracy	Hysteresis	Dial Reading
2398-08*	0.8mm	0.01mm	13µm	3µm	0-40-0

*Supplied with manufacturer inspection certificate traceable to NIST USA

DIAL TEST INDICATOR

2399-08

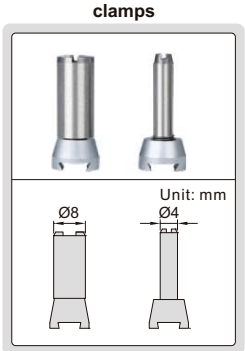


MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

JEWELED BEARING

- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli (page 138)

clamps



Code	Range	Graduation	Accuracy	Hysteresis	Dial Reading
2399-08*	0.8mm	0.01mm	13µm	3µm	0-40-0

*Supplied with manufacturer inspection certificate traceable to NIST USA

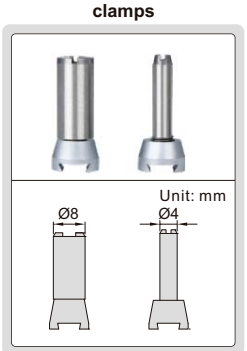
LARGE RANGE DIAL TEST INDICATOR

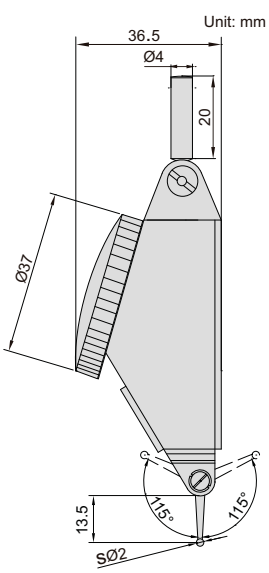
JEWELED BEARING

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

2386-16A

clamps





- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli (page 138)

Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2386-16A*	1.6mm	0.01mm	25µm	8µm	0-40-0

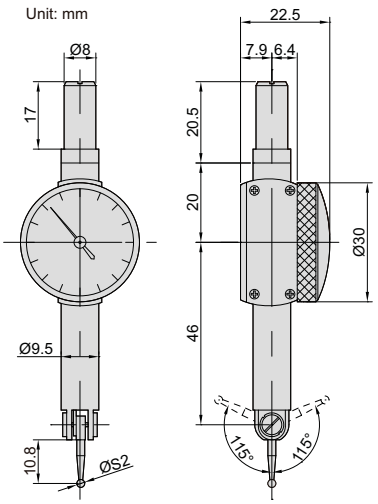
*Supplied with manufacturer inspection certificate traceable to NIST USA

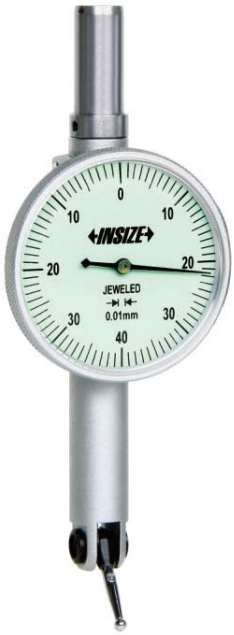
ROUND BODY DIAL TEST INDICATOR

MANUFACTURER INSPECTION CERTIFICATE TRACEABLE TO NIST

JEWELED BEARING

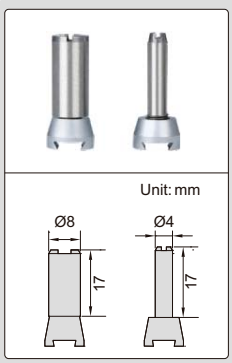
- Jeweled bearing
- Carbide contact point
- Adjustable two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli (page 138)





2391-08

clamps



Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2391-08 *	0.8mm	0.01mm	13µm	3µm	0-40-0

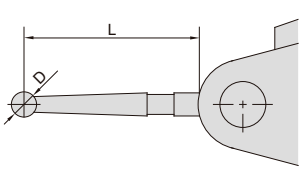
*Supplied with manufacturer inspection certificate traceable to NIST USA

STYLI FOR DIAL TEST INDICATORS

(mm)

Code	For dial test indicator	Material of contact point	L	D
6284-1	2380-08, 2398-08 2381-08, 2399-08	steel	13.5	SØ1
6284-3		carbide	13.5	SØ2
6284-4		ruby	13.5	SØ2
6284-8		carbide	13.5	SØ3
6284-21	2380-02 2381-02	steel	12.5	SØ1
6284-22		carbide	12.5	SØ2
6284-23		carbide	12.5	SØ3
6284-44	2880-02 2880-02R 2895-08 2897-02 2898-08	carbide	11.7	SØ0.4
6284-41		carbide	11.7	SØ1
6284-42		carbide	11.7	SØ2
6284-45		ruby	11.7	SØ2
6284-43		carbide	11.7	SØ3
6284-51	2896-05 2899-05	carbide	34.6	SØ1
6284-52		carbide	34.6	SØ2
6284-55		ruby	34.6	SØ2
6284-53		carbide	34.6	SØ3
6284-71	2391-08	carbide	10.8	SØ2

6284-3



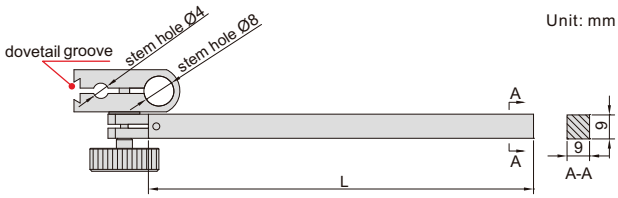
DIAL TEST INDICATOR HOLDER

6293-1

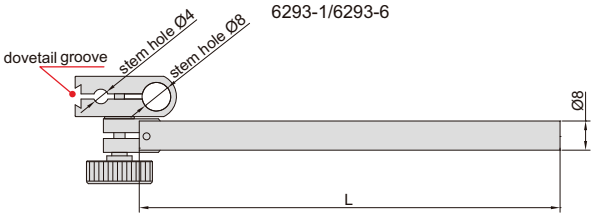
6293-2

Code	Stem section	Stem length (L)
6293-1	9x9mm	100mm
6293-6	9x9mm	50mm
6293-2	Ø8mm	115mm

Unit: mm



6293-1/6293-6



6293-2

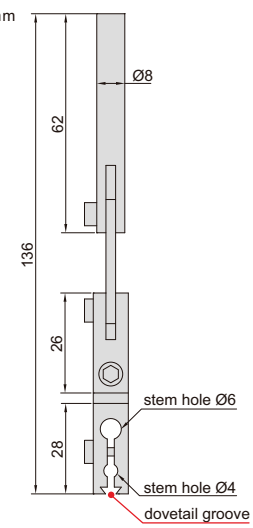
DIAL TEST INDICATOR HOLDER

6296-1

- Supplied with fixing spanner

Code
6296-1

Unit: mm



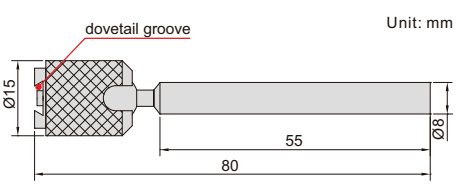
DIAL TEST INDICATOR UNIVERSAL HOLDER

6297-1

Code
6297-1

- Set the indicators at the desired attitude to the workpiece

Unit: mm

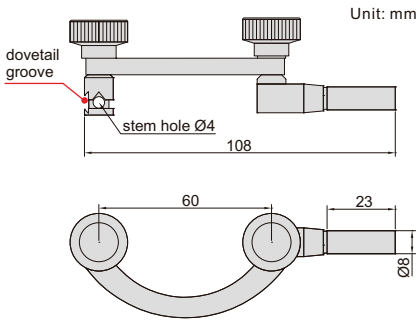


DIAL TEST INDICATOR CENTERING HOLDER

6291-1

Code
6291-1

- Center cylinders or holes on machine tools

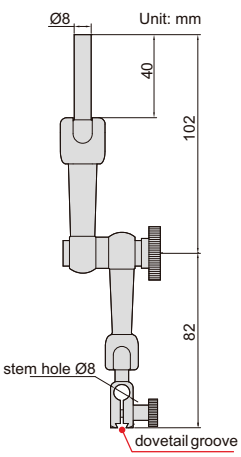


DIAL TEST INDICATOR CENTERING HOLDER

- Center cylinders or holes on machine tools
- Can be used with dial test indicators

Code
6295-1A

6295-1A

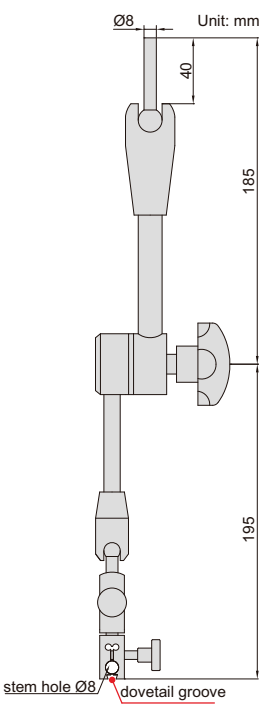


INDICATOR CENTERING HOLDER

Code
6294-1A

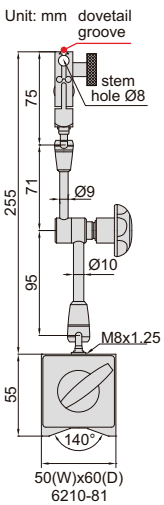
- Center cylinders or holes on machine tools
- Can be used with dial test indicators or dial indicators

6294-1A

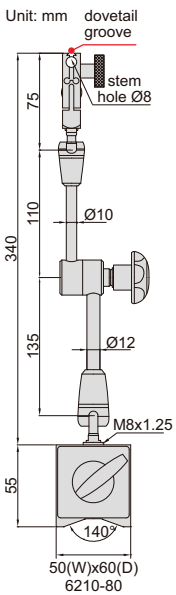


UNIVERSAL MAGNETIC STAND

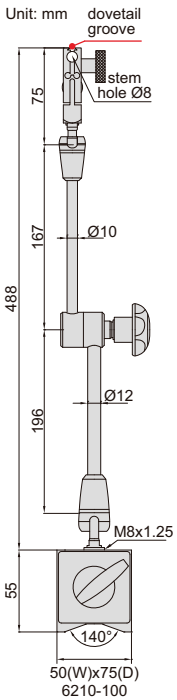
6210-81



6210-80



6210-100



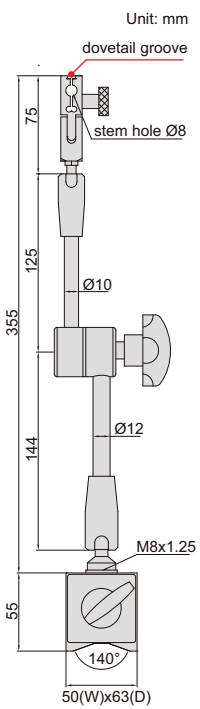
- For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6210-81	80kgf	Ø8mm	with fine adjustment and dovetail groove
6210-80	80kgf	Ø8mm	with fine adjustment and dovetail groove
6210-100	100kgf	Ø8mm	with fine adjustment and dovetail groove

UNIVERSAL MAGNETIC STAND

ATTENTION: LOW LOCKING FORCE

6208-80A



- For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6208-80A	80kgf	Ø8mm	with fine adjustment and dovetail groove

MAGNETIC STAND

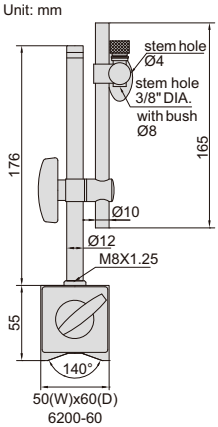
6200-60

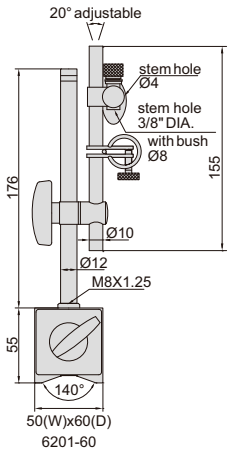
6201-60

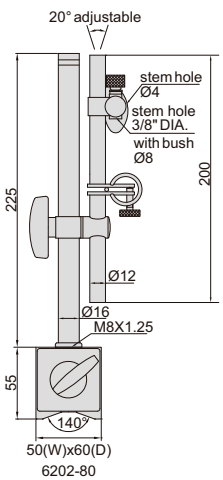
6202-80

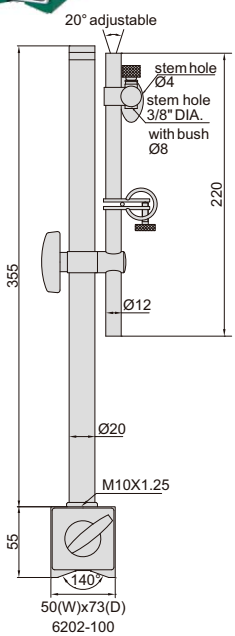
6202-100

Unit: mm





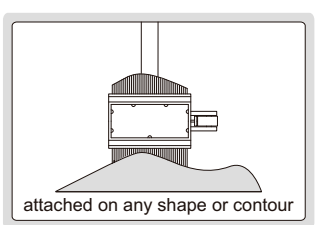




Code	Magnetic force	Applicable holding stem	Remark
6200-60	60kgf	Ø8mm, Ø4mm, 3/8" DIA.	without fine adjustment
6201-60	60kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment
6202-80	80kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment
6202-100	100kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment

- For digital/dial indicators and dial test indicators

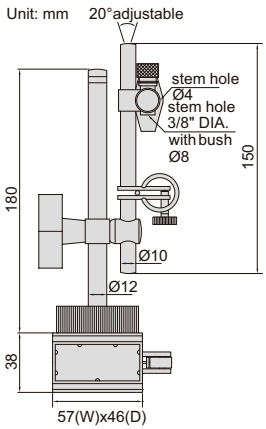
MAGNETIC STAND FOR UNEVEN SURFACE



- For digital/dial indicators and dial test indicators
- With fine adjustment

Code	Magnetic force	Applicable holding stem
6215-60	60kgf	Ø8mm, Ø4mm, 3/8" DIA.

Unit: mm 20° adjustable

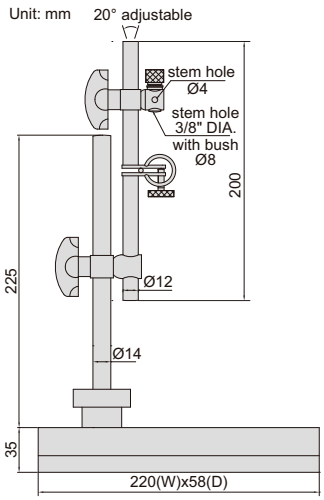


6215-60

UNIVERSAL STAND

- For digital/dial indicators and dial test indicators
- With fine adjustment

Code	Applicable holding stem
6214-A	Ø8mm, Ø4mm, 3/8" DIA.

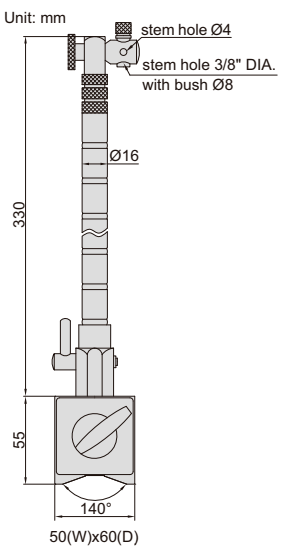


6214-A

FLEX ARM MAGNETIC STAND

- For dial test indicators

Code	Magnetic force	Applicable holding stem
6207-80A	80kgf	Ø8mm, Ø4mm, 3/8" DIA.

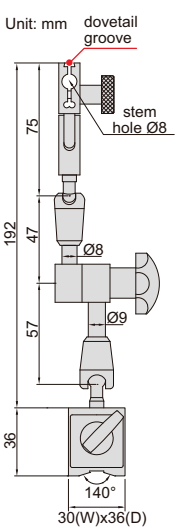


6207-80A

MINI MAGNETIC STAND

- For dial test indicators
- With fine adjustment and dovetail groove

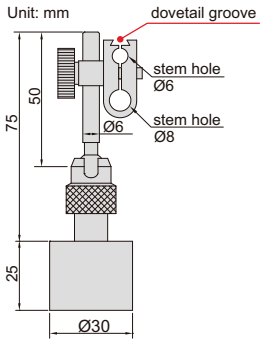
Code	Magnetic force	Applicable holding stem
6224-40	40kgf	Ø8mm



6224-40

MINI MAGNETIC STAND

6211-10

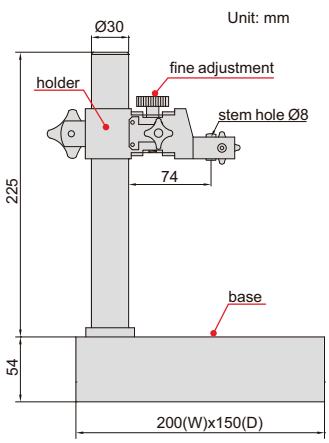


- For dial test indicators
- With dovetail groove

Code	Magnetic force	Applicable holding stem
6211-10	10kgf	Ø6mm, Ø8mm

GRANITE DIAL INDICATOR STAND

6866-150

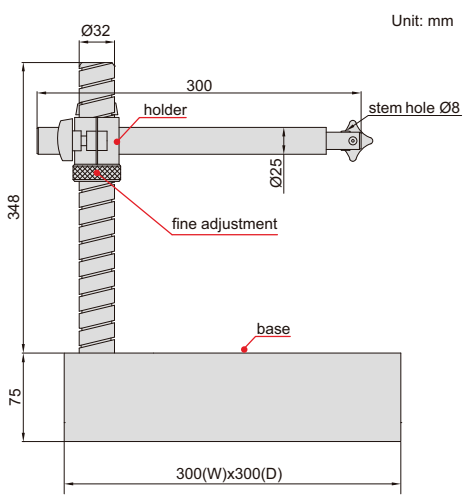


- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm

Code	Applicable holding stem	Base
6866-150	Ø8mm	flatness 2.5μm

GRANITE DIAL INDICATOR STAND

6867-250



- Vertical travel of holder: 250mm
- Fine adjustment range: entire stroke

Code	Applicable holding stem	Base
6867-250	Ø8mm	flatness 2.8μm

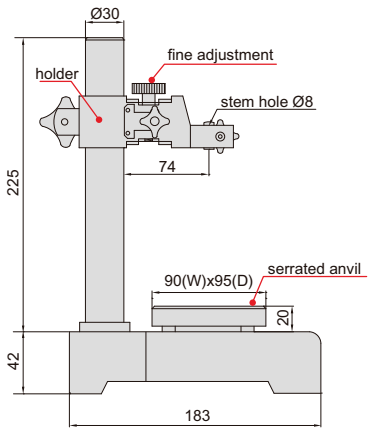
DIAL INDICATOR STAND

- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm

Code	Applicable holding stem	Anvil
6863-150	Ø8mm	serrated, flatness 1.5μm, hardness HRC60±2

6863-150

Unit: mm



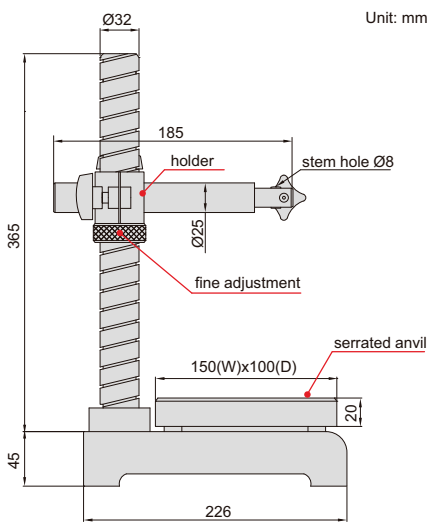
DIAL INDICATOR STAND

- Vertical travel of holder: 250mm
- Fine adjustment range: entire stroke

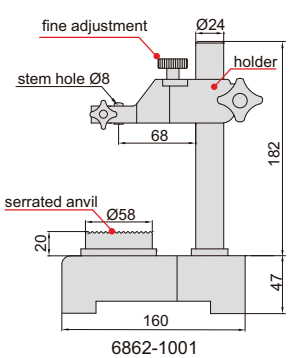
Code	Applicable holding stem	Anvil
6864-250	Ø8mm	serrated, flatness 1.5μm, hardness HRC60±2

6864-250

Unit: mm

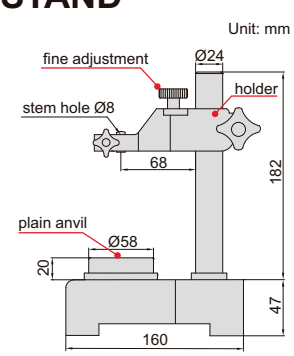


DIAL INDICATOR STAND



6862-1001

Unit: mm



6862-1002

6862-1001

6862-1002

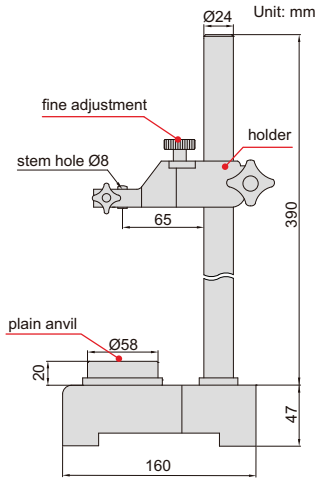
- Vertical travel of holder: 100mm
- Fine adjustment range: 2mm

Code	Applicable holding stem	Anvil
6862-1001	Ø8mm	serrated, flatness 1.5μm, hardness HRC60±2
6862-1002	Ø8mm	plain, flatness 1.5μm, hardness HRC60±2

TRANSFER STAND

- Vertical travel of holder: 335mm
- Fine adjustment range: 2mm

Application



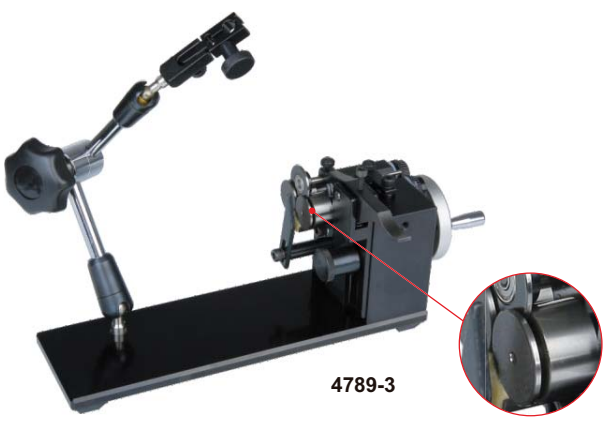
6865-300

rigid construction, designed to make comparison height measurement (set zero with gage block then measure height of workpiece) with dial indicators or digital indicators (variation of measuring force is high)

Code	Applicable holding stem	Anvil
6865-300	Ø8mm	plain, flatness 1.5μm, hardness HRC60±2

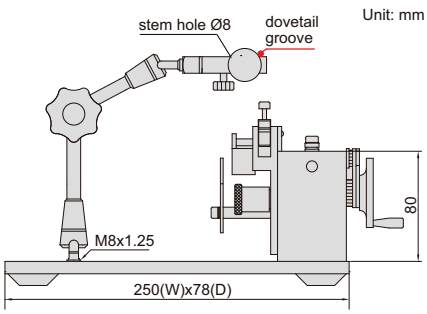
CONCENTRICITY GAGE

4789-1



4789-3

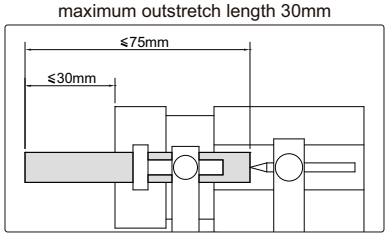
Unit: mm



- Accuracy 2μm
- Optional accessory: dial test indicator, mini magnetic stand (code **6224-40**)

Code	Applicable diameter
4789-1	Ø3.5mm - 25mm
4789-3	Ø1mm - 25mm

maximum workpiece length 75mm,
maximum outstretch length 30mm

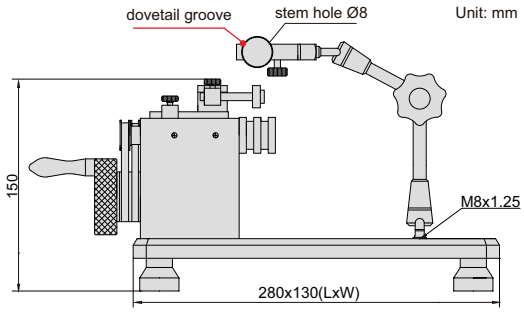


CONCENTRICITY GAGE

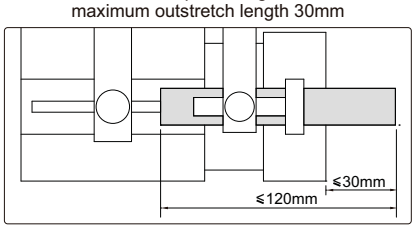
HIGH STABILITY, LONG WORKING LIFE

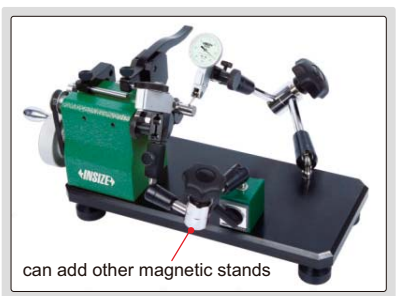
dial test indicator is not included

4725-45



maximum workpiece length 120mm,
maximum outstretch length 30mm



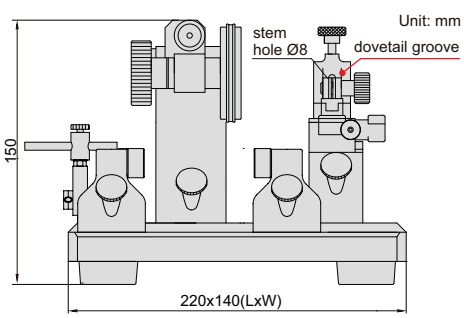


- With ball bearing
- High stability, long working life

Code	Accuracy	Diameter range	Load
4725-45	2μm	3-45mm	6kg

CONCENTRICITY GAGE

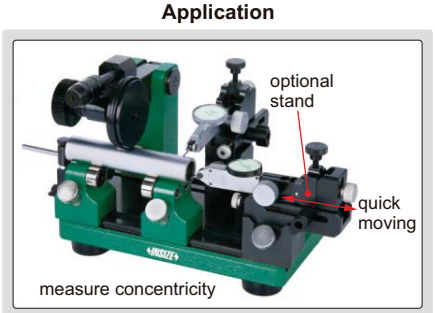
dial test indicator is not included



4724-25

Code	Accuracy	Diameter range	Workpiece length		Load
			Without optional stand	With optional stand	
4724-25	3μm	3-25mm	0-220mm	0-120mm	5kg

Application



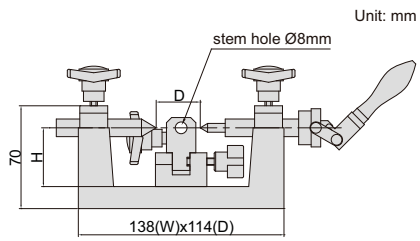
Stand (optional)

Code
4724-STAND

4724-STAND

MINI BENCH CENTER

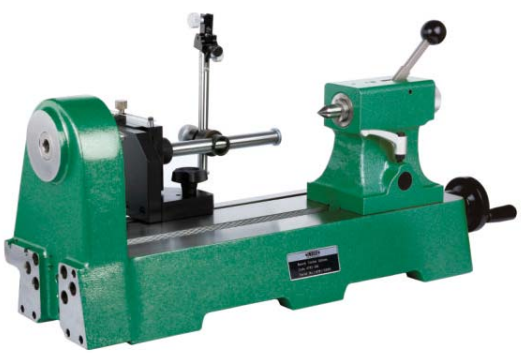
4721-75



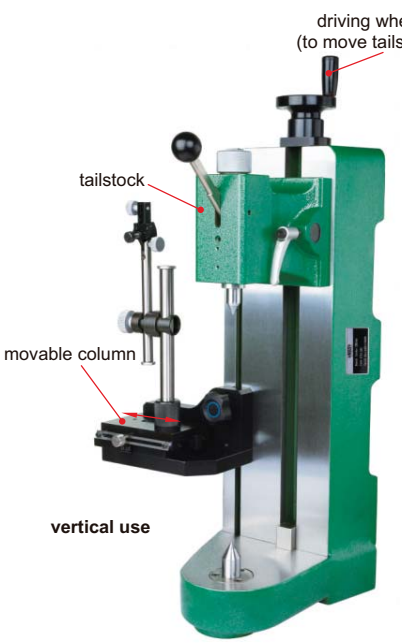
(mm)

Code	Horizontal parallelism	Vertical parallelism	Center height (H)	Distance between two centers (D)	Taper of center	Weight	Load
4721-75	0.003mm	0.003mm	40	75	MT1	3.7kgs	4kg

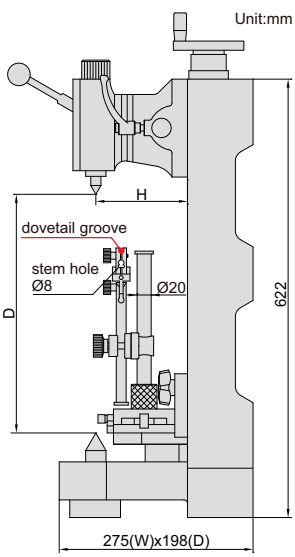
VERTICAL AND HORIZONTAL BENCH CENTER



horizontal use



vertical use



4783-380

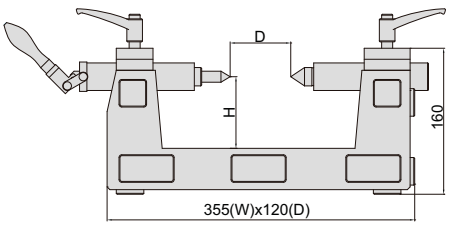
- For vertical and horizontal use
- Move tailstock via driving wheel

(mm)

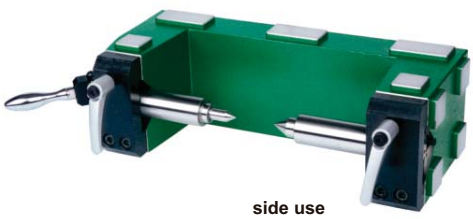
Code	Horizontal parallelism	Vertical parallelism	Center height (H)	Distance between two centers(D)	Taper of upper center	Taper of lower center	Weight	Load
4783-380	0.01mm	0.01mm	130	380	MT2	MT3	80kg	60kg

VERTICAL AND HORIZONTAL BENCH CENTER

Unit: mm



horizontal use



side use

vertical use

- For vertical, side and horizontal use

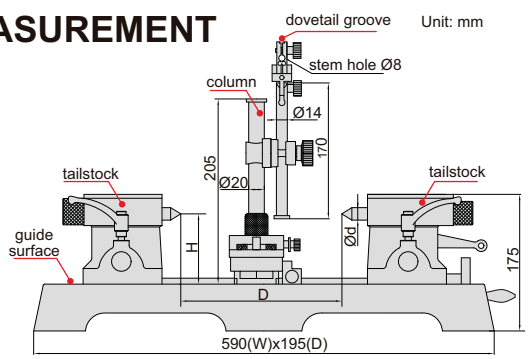
4722-200

(mm)

Code	Horizontal parallelism	Vertical parallelism	Center height (H)	Distance between two centers (D)	Taper of center	Weight	Load
4722-200	0.004mm	0.005mm	80	200	MT1/MT3	22kg	25kg

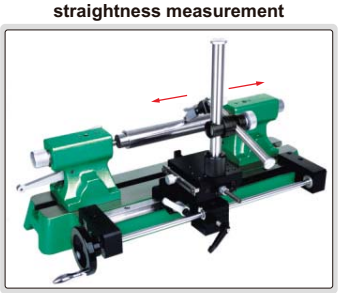
BENCH CENTER WITH STRAIGHTNESS MEASUREMENT

Unit: mm



4723-300

straightness measurement

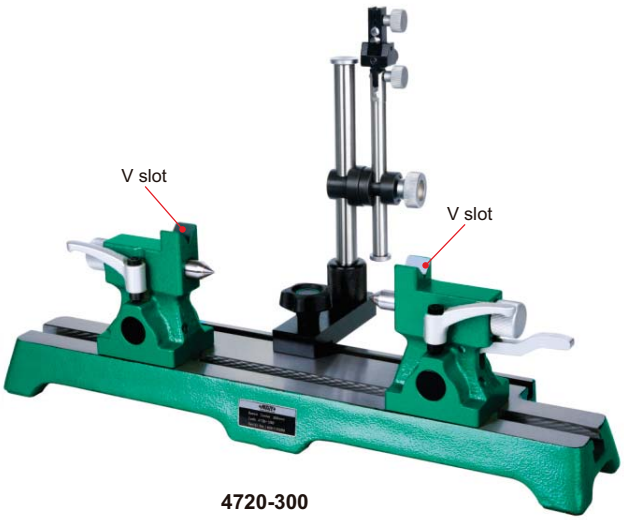


- Hardened cast-iron guide surface

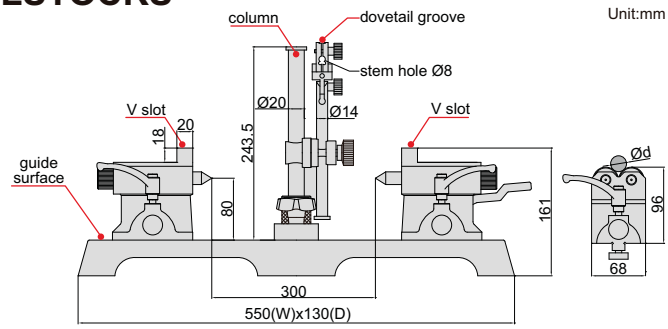
(mm)

Code	Horizontal parallelism	Vertical parallelism	Accuracy of straightness measurement	Center height(H)	Distance between two centers(D)	Diameter of center(Ød)	Taper of center	Weight	Load
4723-300	0.004mm	0.006mm	0.01mm	90	300	12.3	MT1	38kg	25kg

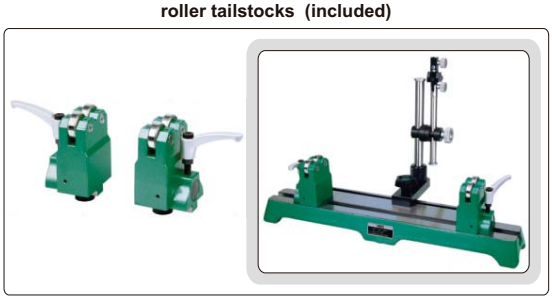
BENCH CENTER WITH ROLLER TAILSTOCKS



4720-300



roller tailstocks (included)

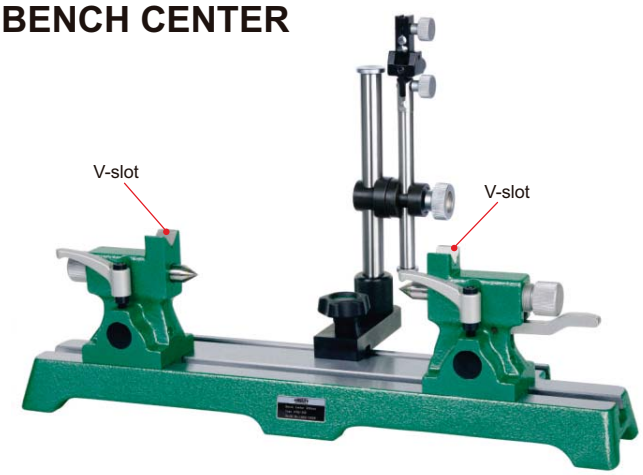


- Hardened cast-iron guide surface
- Supplied with V slot/center tailstocks and roller tailstocks
- V slot for cylinder Ø4 ~ Ø22mm
- Roller for cylinder Ø5 ~ Ø100mm

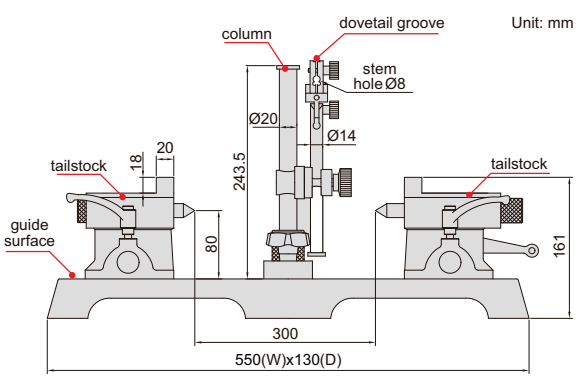
(mm)

Code	Horizontal parallelism	Vertical parallelism	Center height	Distance between two centers	Taper of center	Load
4720-300	0.01mm	0.015mm	80	300	MT1	25kg (40kg for roller tailstocks)

BENCH CENTER



4782-300



- Hardened cast-iron guide surface
- Movable column
- V slot for cylinder Ø4 ~ Ø22mm

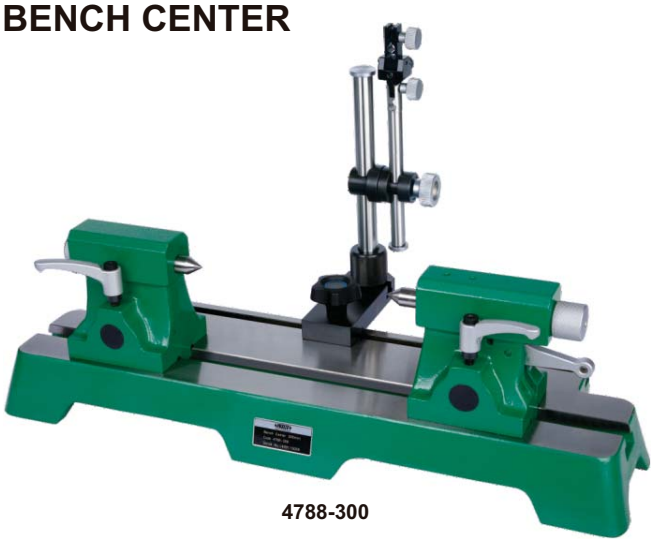
(mm)

Code	Horizontal parallelism	Vertical parallelism	Center height	Distance between two centers	Taper of center	Load
4782-300	0.01mm	0.015mm	80	300	MT1	25kg

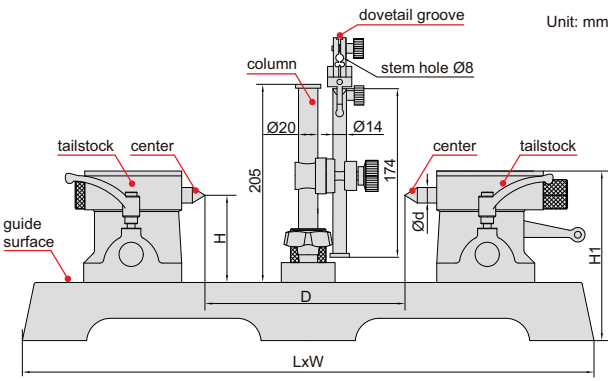
BENCH CENTER

HIGH PRECISION

HEAVY DUTY



4788-300

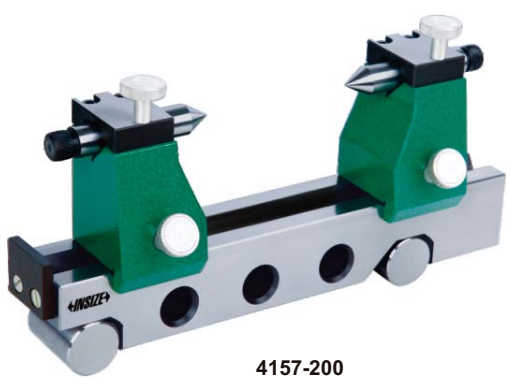


- Hardened cast-iron guide surface
- Movable column

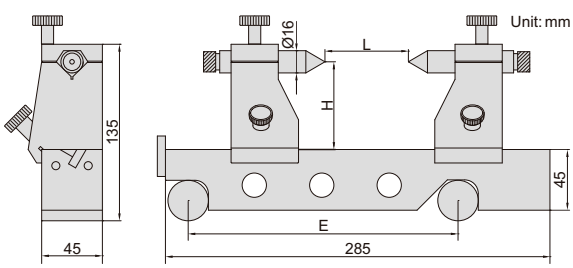
(mm)

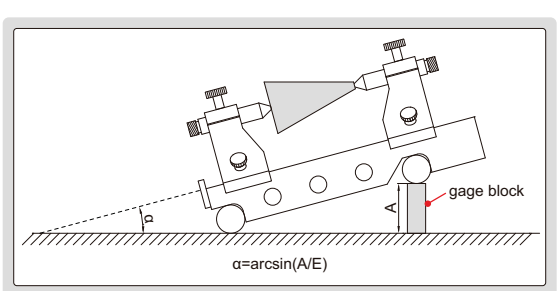
Code	Horizontal parallelism	Vertical parallelism	Center height(H)	Distance between two centers(D)	Length (L)	Width (W)	Height (H1)	Diameter of center(Ød)	Taper of center	Weight	Load
4788-300	0.01mm	0.01mm	90	300	590	192	175	12.2	MT2	34kg	25kg
4788-400	0.01mm	0.01mm	130	400	770	206	241	18.0	MT3	66kg	60kg
4788-600	0.01mm	0.01mm	130	600	930	220	250	18.0	MT3	90kg	60kg
4788-600H2	0.01mm	0.01mm	200	600	930	220	325	24.1	MT3	105kg	60kg
4788-1000	0.01mm	0.01mm	130	1000	1330	220	262	18.0	MT3	112kg	60kg
4788-1000H2	0.01mm	0.01mm	200	1000	1330	220	337	24.1	MT3	125kg	85kg
4788-1000H3	0.01mm	0.01mm	300	1000	1330	220	442	31.6	MT3	165kg	85kg

SINE BENCH CENTER



4157-200





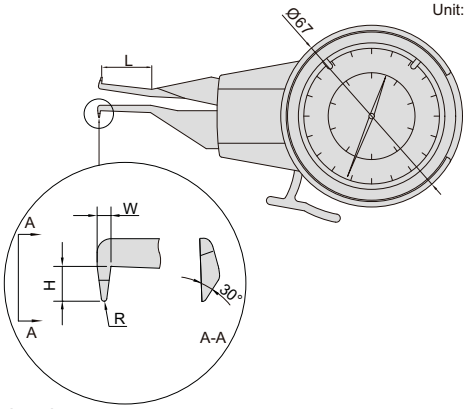
- Check taper or runout of taper bars
- Sine bar accuracy (α=30°): ±5 seconds

Code	Accuracy	Center height (H)	Center distance (L)
4157-200	0.01mm	65mm	200mm

INTERNAL DIAL CALIPER GAGE

2222-15

Unit: mm



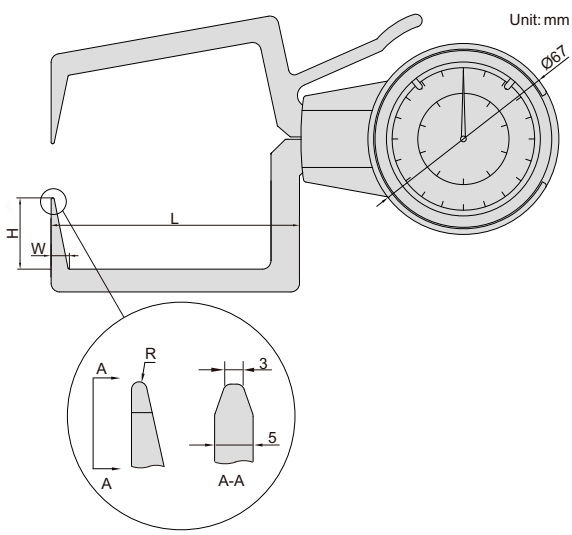
(mm)

Code	Range	Graduation	Accuracy	L	H	W	R
2222-15	5-15mm	0.01mm	±0.03mm	20	2	2.5	R0.3
2222-25	5-25mm	0.01mm	±0.03mm	35	1.5	1.0	R0.3
2222-301	10-30mm	0.01mm	±0.03mm	55	5.5	2.5	R0.5
2222-401	20-40mm	0.01mm	±0.03mm	80	6.0	3.0	R0.5
2222-501	30-50mm	0.01mm	±0.03mm	80	8.0	3.0	R0.5
2222-60	40-60mm	0.01mm	±0.03mm	80	8.0	3.0	R0.5

EXTERNAL DIAL CALIPER GAGE

2333-401

Unit: mm

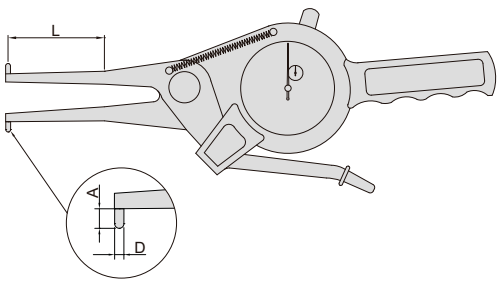


(mm)

Code	Range	Graduation	Accuracy	L	H	W	R
2333-201	0-20mm	0.01mm	±0.03mm	80	25	6.5	R0.5
2333-301	10-30mm	0.01mm	±0.03mm	80	25	6.5	R0.5
2333-401	20-40mm	0.01mm	±0.03mm	80	25	6.5	R0.5
2333-501	30-50mm	0.01mm	±0.03mm	80	25	6.5	R0.5
2333-601	40-60mm	0.01mm	±0.03mm	80	25	6.5	R0.5

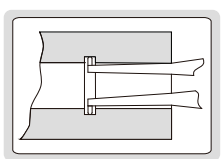
INTERNAL DIAL CALIPER GAGE

2321-35



(mm)

Code	Range	Graduation	Accuracy	L	A	D
2321-35	15-35mm	0.01mm	±0.04mm	50	3	Ø3
2321-AL35	15-35mm	0.01mm	±0.04mm	200	3	Ø3
2321-55	35-55mm	0.01mm	±0.04mm	80	6	Ø3
2321-AL55	35-55mm	0.01mm	±0.04mm	250	8	Ø3
2321-75	55-75mm	0.01mm	±0.04mm	90	8	Ø3
2321-AL75	55-75mm	0.01mm	±0.04mm	250	8	Ø3
2321-95	75-95mm	0.01mm	±0.04mm	100	8	Ø3
2321-115	95-115mm	0.01mm	±0.04mm	120	10	Ø3.2
2321-135	115-135mm	0.01mm	±0.04mm	120	10	Ø3.2

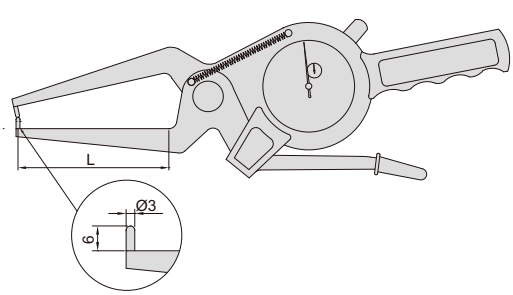


- Carbide measuring tips

EXTERNAL DIAL CALIPER GAGE

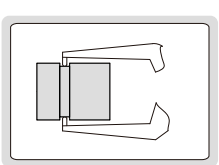
2332-20

Unit: mm



Code	Range	Graduation	Accuracy	L (mm)
2332-20	0-20mm	0.01mm	±0.04mm	60
2332-40	20-40mm	0.01mm	±0.04mm	60
2332-60	40-60mm	0.01mm	±0.04mm	55
2332-80	60-80mm	0.01mm	±0.04mm	55
2332-100	80-100mm	0.01mm	±0.04mm	55

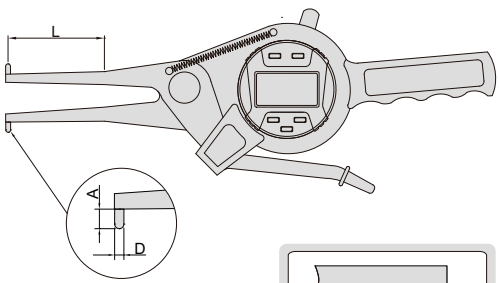
- Carbide measuring tips

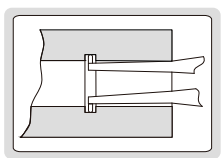


DATA OUTPUT

DIGITAL INTERNAL CALIPER GAGE

2151-35





(mm)

Code	Range	Resolution	Accuracy	L	A	D
2151-35	15-35mm/0.6-1.4"	0.01mm/0.0005"	±0.04mm	50	3	Ø3
2151-AL35	15-35mm/0.6-1.4"	0.01mm/0.0005"	±0.04mm	200	3	Ø3
2151-55	35-55mm/1.4-2.2"	0.01mm/0.0005"	±0.04mm	80	6	Ø3
2151-AL55	35-55mm/1.4-2.2"	0.01mm/0.0005"	±0.04mm	250	8	Ø3
2151-75	55-75mm/2.2-3"	0.01mm/0.0005"	±0.04mm	90	8	Ø3
2151-AL75	55-75mm/2.2-3"	0.01mm/0.0005"	±0.04mm	250	8	Ø3
2151-95	75-95mm/3-3.8"	0.01mm/0.0005"	±0.04mm	100	8	Ø3
2151-115	95-115mm/3.8-4.6"	0.01mm/0.0005"	±0.04mm	120	10	Ø3.2
2151-135	115-135mm/4.6-5.4"	0.01mm/0.0005"	±0.04mm	120	10	Ø3.2

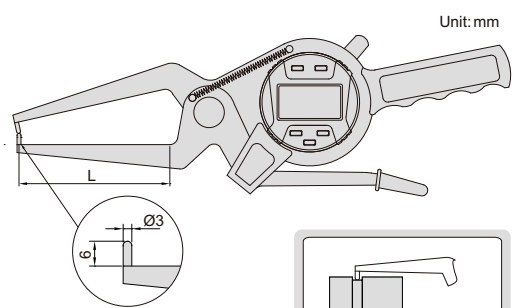
- Carbide measuring tips
- Reading in digit and analog
- Display can be rotated by 320º
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./range measurement, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**)

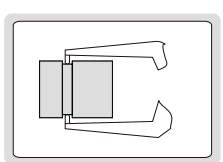
DATA OUTPUT

DIGITAL EXTERNAL CALIPER GAGE

2132-20

Unit: mm





Code	Range	Resolution	Accuracy	L(mm)
2132-20	0-20mm/0-0.8"	0.01mm/0.0005"	±0.04mm	60
2132-40	20-40mm/0.8-1.6"	0.01mm/0.0005"	±0.04mm	60
2132-60	40-60mm/1.6-2.4"	0.01mm/0.0005"	±0.04mm	55
2132-80	60-80mm/2.4-3.2"	0.01mm/0.0005"	±0.04mm	55
2132-100	80-100mm/3.2-4"	0.01mm/0.0005"	±0.04mm	55

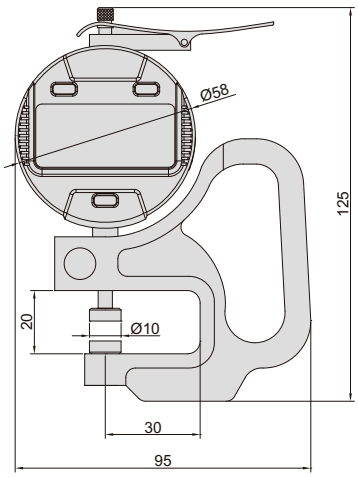
- Carbide measuring tips
- Reading in digit and analog
- Display can be rotated by 320º
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./range measurement, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**)

DIGITAL THICKNESS GAGE

DATA OUTPUT

2871-101

Unit: mm



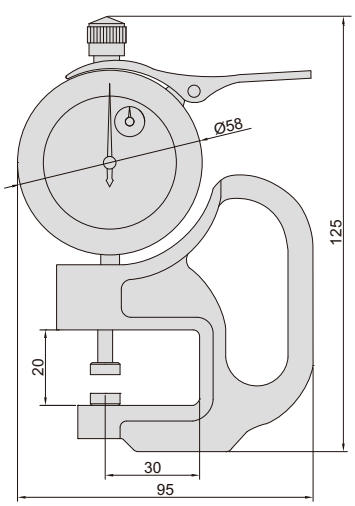
- Ceramic spindle tip and anvil
- Buttons: on/off, zero, mm/inch
- Battery CR2032, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40, 7302-SPC3A, 7305-SPC1A**)

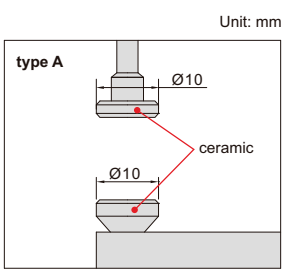
Code	Range	Resolution	Accuracy
2871-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm
2871-101	0-10mm/0-0.4"	0.001mm/0.00005"	±0.005mm

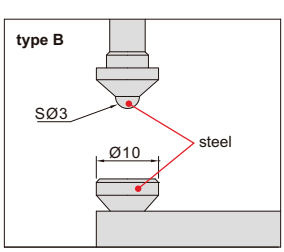
THICKNESS GAGE

2364-10

Unit: mm







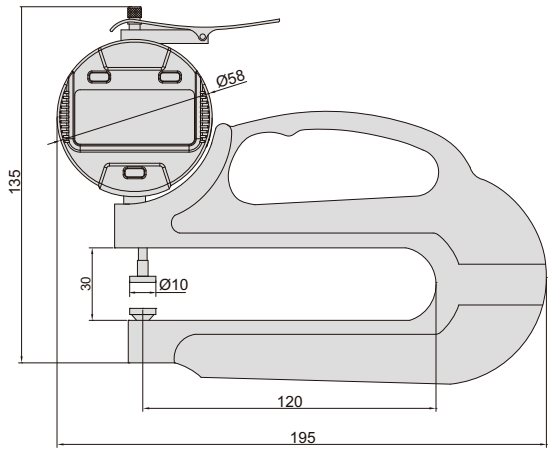
Code	Range	Graduation	Accuracy	Type
2364-10	0-10mm	0.01mm	±0.02mm	A
2364-10B	0-10mm	0.01mm	±0.02mm	B

DATA OUTPUT

DIGITAL THICKNESS GAGE

2872-10

Unit: mm



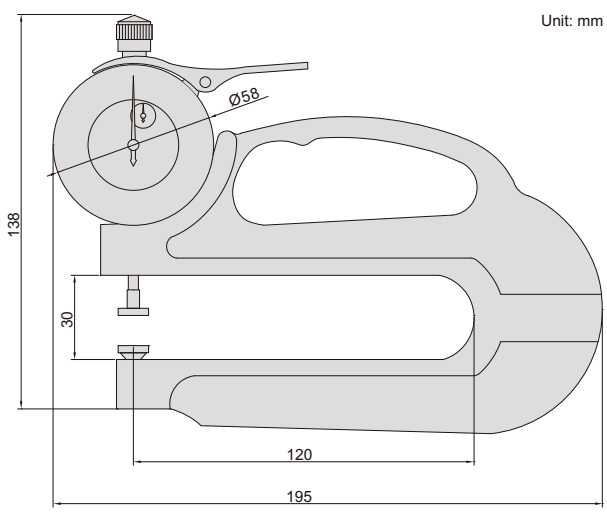
Code	Range	Resolution	Accuracy
2872-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm

- Ceramic spindle tip and anvil
- Buttons: on/off, zero, mm/inch
- Battery CR2032, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40**, **7302-SPC3A**, **7305-SPC1A**)

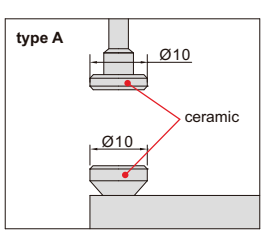
THICKNESS GAGE

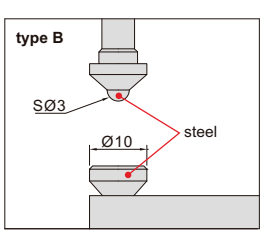
2365-10

Unit: mm



Code	Range	Graduation	Accuracy	Type
2365-10	0-10mm	0.01mm	±0.02mm	A
2365-20	0-20mm	0.01mm	±0.03mm	A
2365-10B	0-10mm	0.01mm	±0.02mm	B
2365-20B	0-20mm	0.01mm	±0.03mm	B

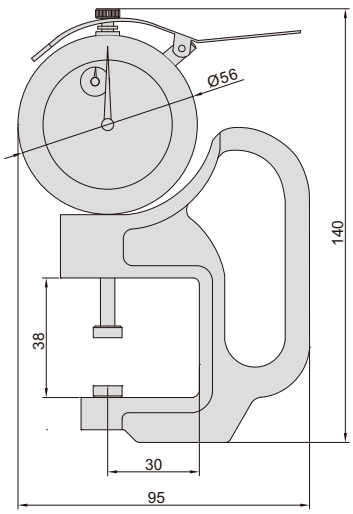


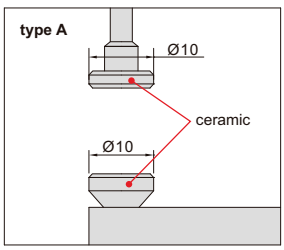


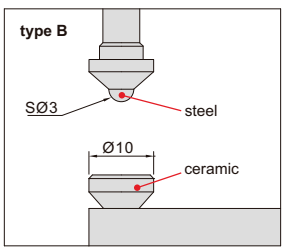
THICKNESS GAGE

2366-30

Unit: mm







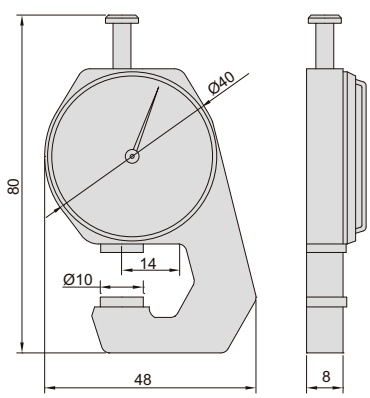
Code	Range	Graduation	Accuracy	Type
2366-30	0-30mm	0.01mm	±0.035mm	A
2366-30B	0-30mm	0.01mm	±0.035mm	B

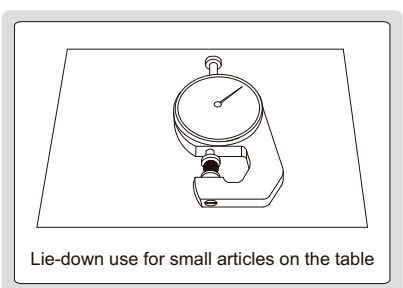
THICKNESS GAGE

SUITABLE FOR JEWELLERY

2361-10

Unit: mm





Lie-down use for small articles on the table

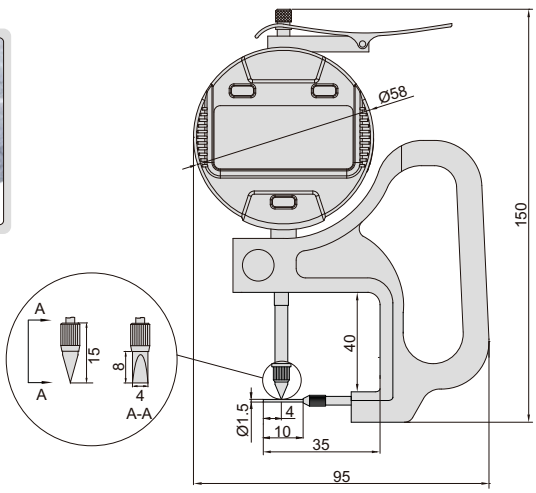
Code	Range	Graduation	Accuracy
2361-10	0-10mm	0.1mm	±0.05mm

DATA OUTPUT

DIGITAL TUBE THICKNESS GAGE

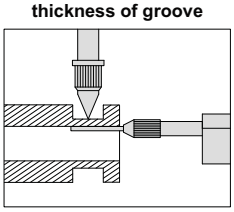
2873-10

Unit: mm



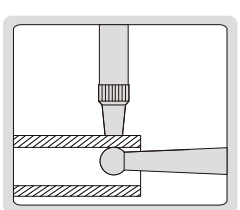
- Buttons: on/off, zero, mm/inch
- Battery CR2032, automatic power off
- Data output
- Optional accessory: data output cable (code **7306-40**, **7302-SPC3A**, **7305-SPC1A**)

measure wall thickness of groove

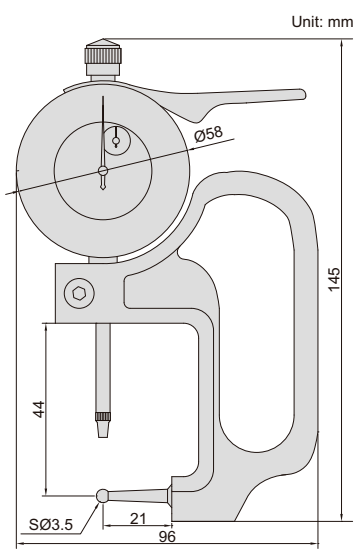


Code	Range	Resolution	Accuracy
2873-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm

TUBE THICKNESS GAGE



Unit: mm



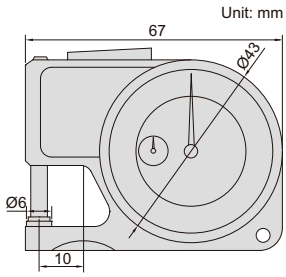
- Measure tube wall thickness

Code	Range	Graduation	Accuracy
2367-10A	0-10mm	0.01mm	±0.02mm

2367-10A

THICKNESS GAGE

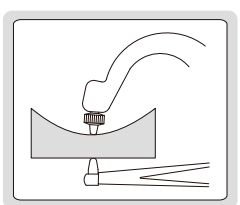
- Stainless steel spindle tip and anvil

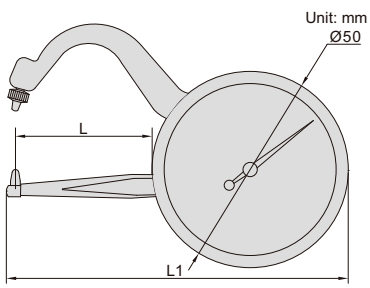


2363-10

Code	Range	Graduation	Accuracy
2363-10	0-10mm	0.01mm	±0.03mm

THICKNESS GAGE



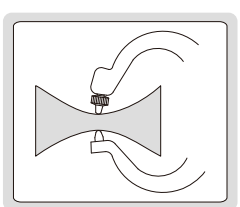


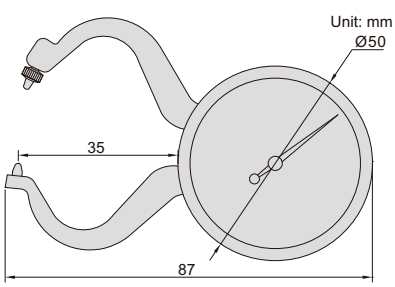
2862-101

(mm)

Code	Range	Graduation	Accuracy	L	L1
2862-101	0-10mm	0.05mm	±0.1mm	35	85
2862-102	0-10mm	0.05mm	±0.1mm	60	110

THICKNESS GAGE

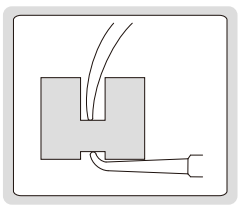




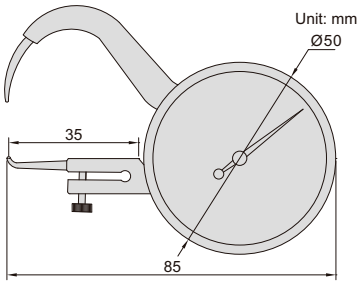
2863-10

Code	Range	Graduation	Accuracy
2863-10	0-10mm	0.05mm	±0.1mm

THICKNESS GAGE WITH POINTED TIPS



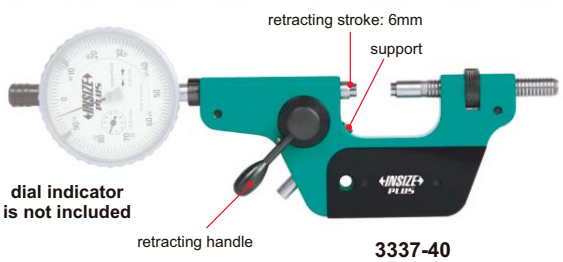
- Pointed tips fit into small grooves and recesses



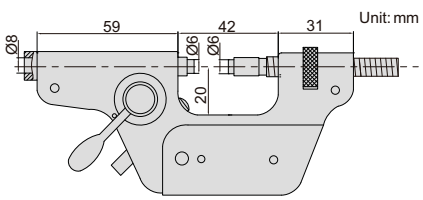
2866-10

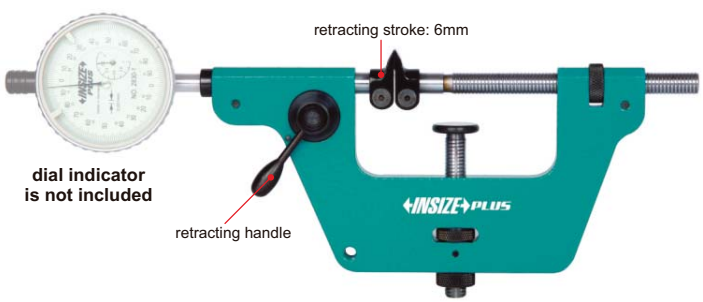
Code	Range	Graduation	Accuracy
2866-10	0-10mm	0.05mm	±0.1mm

DIAL SNAP GAGE

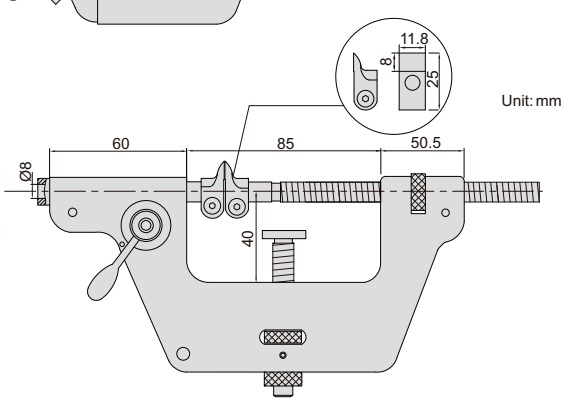


3337-40





3337-60



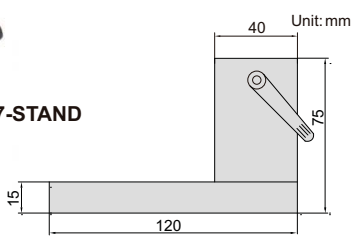
- For quick Go/No-Go judgement
- Carbide measuring faces
- Height of support is adjustable
- Optional accessory: dial indicators (graduation 0.001mm) and digital indicators (resolution 0.001mm)

Code	Range	Parallelism of measuring faces	Retracting stroke	Remark
3337-40	0-40mm	1μm	6mm	
3337-60	0-60mm	3μm	6mm	jaw type measuring tips

Stand (optional)

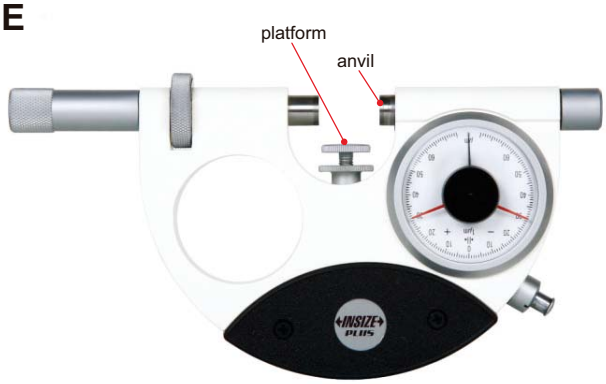
Code
3337-STAND

3337-STAND

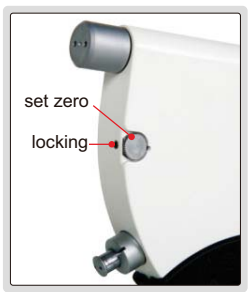


DIAL SNAP GAGE

IP54
WATERPROOF

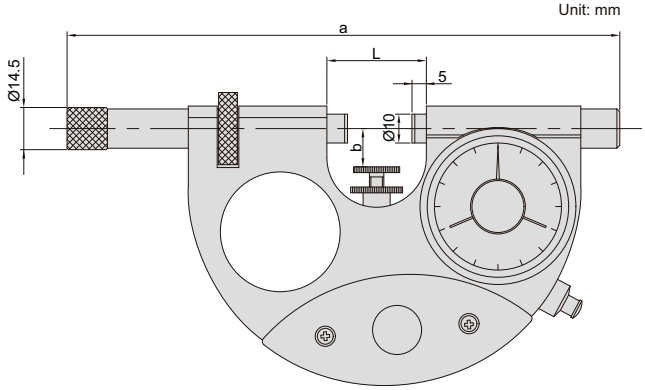


3335-25



- Quick Go/No-Go measurement for mass production
- Anvil retracting stroke: 2.5mm
- Dial indicator: measuring range ±0.07mm, graduation 1μm, accuracy 1μm
- Constant measuring force over the whole range: 8.5N
- Carbide measuring faces
- IP54 dust/waterproof
- Zero position of dial indicator is adjustable and can be locked (supplied with locking wrench)
- Adjustable platform height

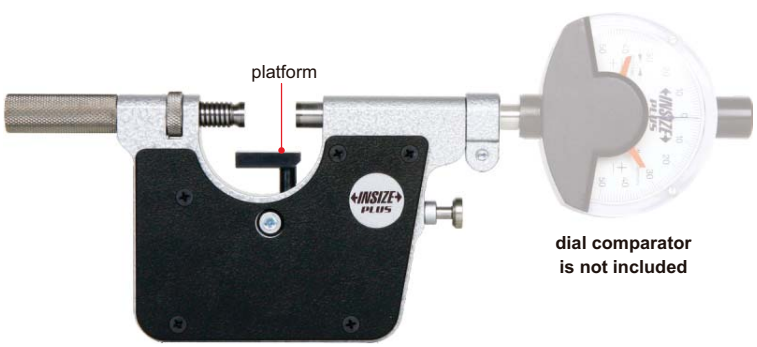
Unit: mm



(mm)

Code	Range	L	a	b
3335-25	0-25mm	35	191	<15
3335-50	25-50mm	60	215	<25
3335-75	50-75mm	84	239	<37.5
3335-100	75-100mm	110	265	<50

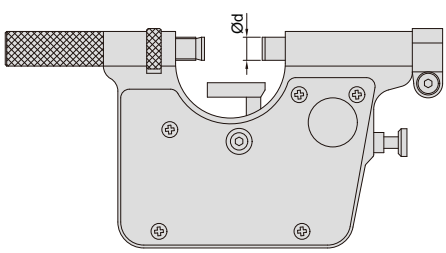
DIAL SNAP GAGE



dial comparator is not included

3336-25

- Quick Go/No-Go judgement for mass production
- Carbide measuring faces
- Adjustable platform height
- Optional accessory: dial comparator (code **2881-01**)



(mm)

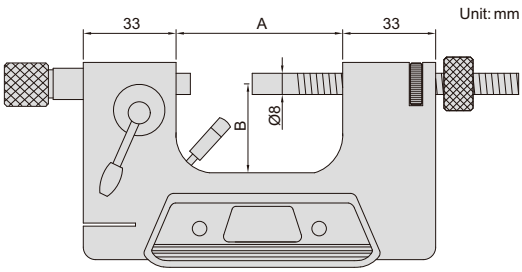
Code	Range	Diameter of measuring faces(Ød)
3336-25	0-25mm	8
3336-50	25-50mm	8
3336-100	50-100mm	15

ATTENTION: NOT SUITABLE FOR 0.001MM INDICATORS

DIAL SNAP GAGE

dial indicator is not included

2184-50W



(mm)

Code	Range	A	B
2184-25W	0-25mm	34	18
2184-50W	0-50mm	62	32
2184-100W	50-100mm	112	62
2184-150W	100-150mm	162	85
2184-200W	150-200mm	212	110

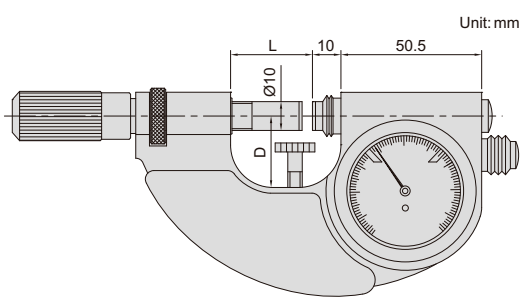
- For quick Go/No-Go judgment of diameter of cylinders and shafts
- Anvil retracting stroke: 3mm
- Measuring force: 6-9N
- Carbide measuring faces
- Optional accessory: dial indicators (graduation 0.01mm), digital indicators (resolution 0.01mm/0.0005")

ATTENTION: BASIC MODEL

IP54 WATERPROOF

DIAL SNAP GAGE

3334-25



(mm)

Code	Range	L	D
3334-25	0-25mm	28.5	25
3334-50	25-50mm	53.5	35
3334-75	50-75mm	78.5	47.5
3334-100	75-100mm	103.5	60

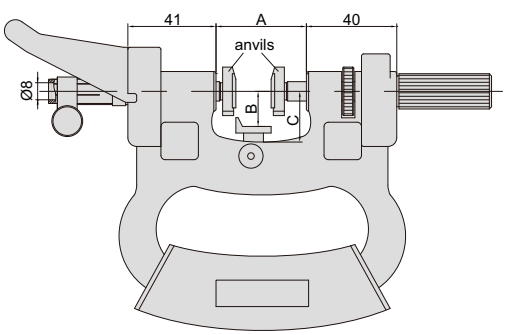
- Go/No-Go judgement for mass production
- Dial indicator: range ±0.04mm, graduation 0.001mm, accuracy 0.001mm
- IP54 dust/waterproof
- Measuring force: 5-10N
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)

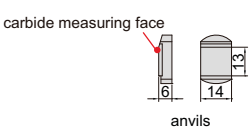
DIAL SNAP GAGE

2186-25

- For quick Go/No-Go judgement of diameter of cylinders and shafts
- Left anvil retracting stroke: 2mm
- Measuring force: 6-8N
- Flatness of anvil: 1.5μm
- Repeatability: 1μm
- Carbide measuring faces for anvils
- Front edges of anvils are chamfered for easy workpiece insertion
- Optional accessory: dial indicators and digital indicators (reading 0.001mm or 0.01mm)

Unit: mm





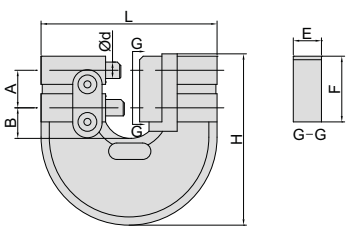
(mm)

Code	Range	Parallelism of measuring faces	A	B	C
2186-25	0-25mm	4μm	42	11-18	20
2186-50	25-50mm	4μm	69	11-32	41
2186-75	50-75mm	5μm	94	17-41	51
2186-100	75-100mm	6μm	119	31-55	65
2186-125	100-125mm	6μm	144	42-70	75
2186-150	125-150mm	8μm	169	55-82	90
2186-175	150-175mm	8μm	194	68-95	100
2186-200	175-200mm	10μm	219	85-110	115
2186-225	200-225mm	10μm	244	95-120	130
2186-250	225-250mm	10μm	269	110-135	145
2186-275	250-275mm	12μm	294	120-150	160
2186-300	275-300mm	12μm	319	128-160	170

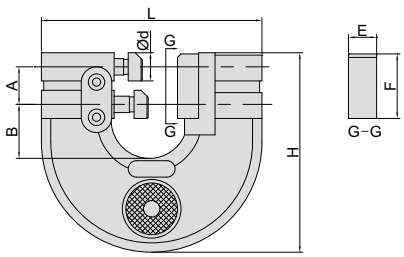
ADJUSTABLE SNAP GAGE

2187-6

2187-19



0-6mm



over 6mm

- Used as Go/No-Go gage by setting upper and lower limits
- Flatness of anvil: 1.5μm
- Parallelism of measuring faces:
  range 0-32mm: 3μm
  range 32-89mm: 4μm
  range 89-300mm: 5μm

(mm)

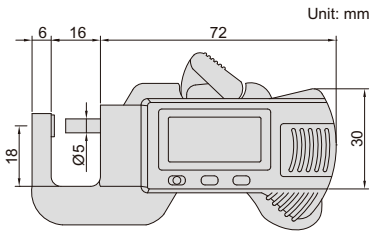
Code	Range	L	A	B	E	F	H	Ød
2187-6	0-6mm	74	15	23.5	12.2	27.2	71.5	7
2187-13	6-13mm	85	15	26	12.2	27.2	79.5	12.3
2187-19	13-19mm	93	15	30	12.2	27.2	83	12.3
2187-25	19-25mm	100	15	33.5	12.2	27.2	89.5	12.3
2187-32	25-32mm	111	18	38.5	15.2	35.2	104	15.3
2187-38	32-38mm	117	18	41.5	15.2	35.2	105	15.3
2187-44	38-44mm	123	18	44.5	15.2	35.2	109	15.3
2187-51	44-51mm	130	18	48	15.2	35.2	117	15.3
2187-57	51-57mm	136	18	51	15.2	35.2	119	15.3
2187-63	57-63mm	143	18	54.5	15.2	35.2	122	15.3
2187-70	63-70mm	156	20	58	15.2	35.2	132	15.3
2187-76	70-76mm	163	20	60.5	15.2	35.2	137	15.3
2187-82	76-82mm	169	20	64.5	15.2	35.2	140	15.3
2187-89	82-89mm	175	20	66.5	15.2	35.2	146	15.3
2187-95	89-95mm	181	20	69.5	15.2	35.2	149	15.3
2187-101	95-101mm	188	20	73	15.2	35.2	154	15.3
2187-108	101-108mm	198	24	79	15.2	35.2	166	15.3
2187-114	108-114mm	204	24	81	15.2	39.2	172	15.3

Code	Range	L	A	B	E	F	H	Ød
2187-120	114-120mm	210	24	86	15.2	39.2	179	15.3
2187-127	120-127mm	217	24	89.5	15.2	39.2	186	15.3
2187-133	127-133mm	223	24	92.5	15.2	39.2	192	15.3
2187-139	133-139mm	229	24	95.5	15.2	39.2	197	15.3
2187-146	139-146mm	235	24	98.5	15.2	39.2	201	15.3
2187-152	146-152mm	242	24	102	15.2	39.2	205	15.3
2187-163	152-163mm	273	21.4	106.7	18.2	39.2	211	18.3
2187-175	163-175mm	273	21.4	106.7	18.2	39.2	211	18.3
2187-188	175-188mm	298.5	21.4	119.7	18.2	39.2	227	18.3
2187-200	188-200mm	298.5	21.4	119.7	18.2	39.2	227	18.3
2187-213	200-213mm	324	21.4	131.7	18.2	39.2	242	18.3
2187-225	213-225mm	324	21.4	131.7	18.2	39.2	242	18.3
2187-238	225-238mm	349.5	21.4	144.7	18.2	39.2	250	18.3
2187-250	238-250mm	349.5	21.4	144.7	18.2	39.2	250	18.3
2187-263	250-263mm	375.5	21.4	157.7	18.2	39.2	278	18.3
2187-275	263-275mm	375.5	21.4	157.7	18.2	39.2	278	18.3
2187-288	275-288mm	400	21.4	170.7	18.2	39.2	291	18.3
2187-300	288-300mm	400	21.4	170.7	18.2	39.2	291	18.3

DIGITAL SNAP GAGE

DATA OUTPUT

2166-12



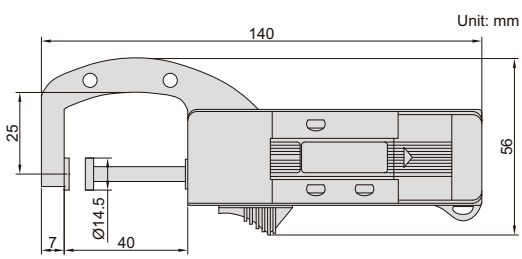
Code	Range	Resolution	Accuracy
2166-12	0-12mm/0-0.5"	0.01mm/0.0005"	±0.03mm

- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

DIGITAL SNAP GAGE

ATTENTION: NO DATA OUTPUT

2167-25

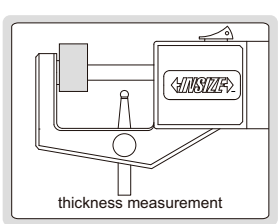


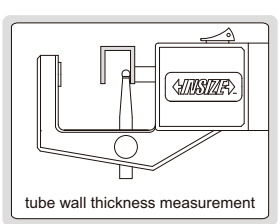
Code	Range	Resolution	Accuracy
2167-25	0-25mm/0-1"	0.01mm/0.0005"	±0.03mm

DIGITAL SNAP GAGE

DATA OUTPUT

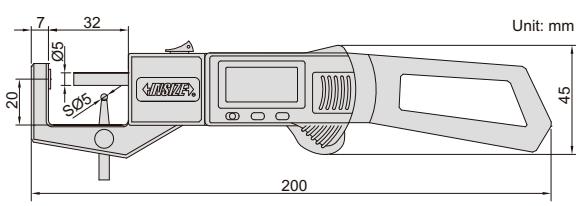
2163-25





- Resolution: 0.01mm/0.0005"
- Accuracy: ±0.04mm
- For thickness and tube wall thickness measurement
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

Code	Thickness range	Tube wall thickness range
2163-25	0-25mm/0-1"	0-2mm/0.08"

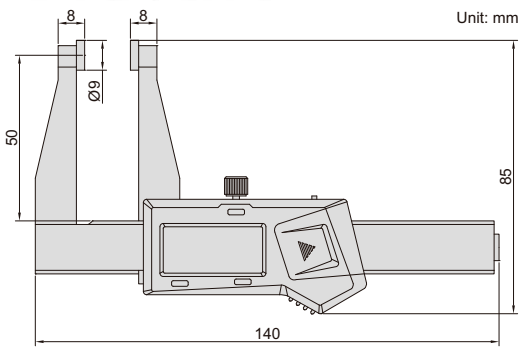


DATA OUTPUT

DIGITAL SNAP GAGE

1163-50A

- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)



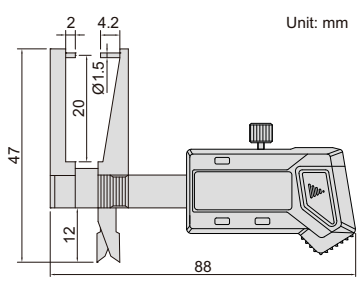
Code	Range	Resolution	Accuracy
1163-50A	0-50mm/0-2"	0.01mm/0.0005"	±0.03mm

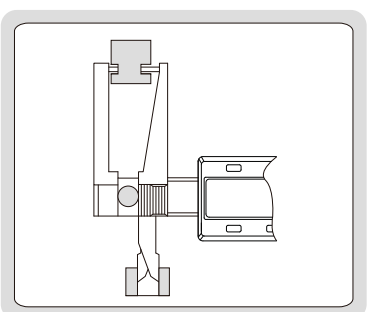
SUITABLE FOR JEWELLERY

ATTENTION: NO DATA OUTPUT

DIGITAL 3-PURPOSE SNAP GAGE

2164-25A





- Buttons: zero, mm/inch, on/off
- Battery LR44
- Made of stainless steel

Code	Range	Resolution	Accuracy
2164-25A	0-25mm/0-1"	0.01mm/0.0005"	±0.03mm

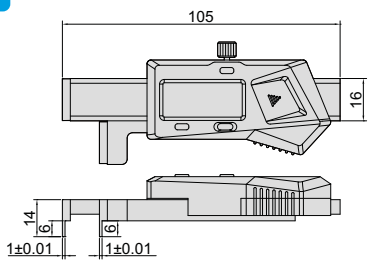
STEP AND GAP GAGE

DATA OUTPUT

front

back

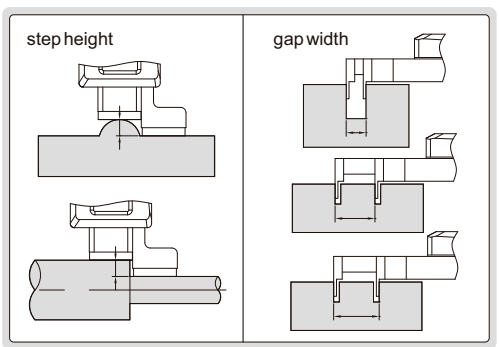
Unit: mm



2168-12

- Measure step height and gap width
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with zero setting block
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

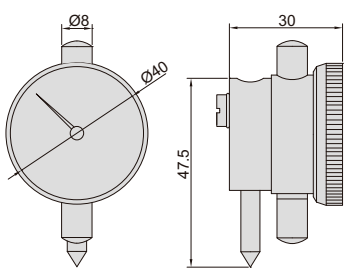
zero setting block



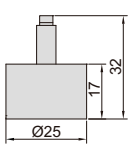
Code	Range	Accuracy
2168-12	0-12.7mm/0-0.5"	±0.03mm

CRANKSHAFT TESTER

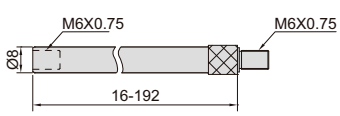
Unit: mm



dial indicator

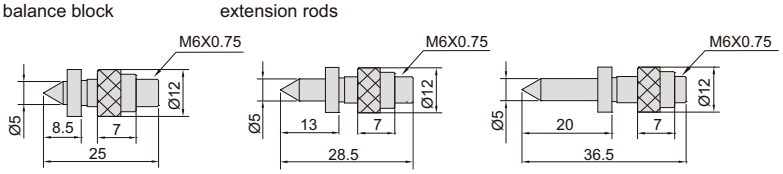


balance block

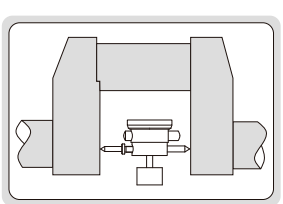


extension rods

2841-500



anvils



- To test crankshaft deflection
- The balance block is mounted on the back of dial indicator to keep the dial indicator facing up

Code	Range	Dial indicator range	Graduation	Extension rods	Accuracy
2841-300	60-300mm	3mm	0.01mm	16mm, 32mm, 64mm, 128mm	±0.016mm
2841-500	60-500mm	3mm	0.01mm	16mm, 32mm, 64mm, 96mm, 128mm, 192mm	±0.016mm

GAGE BLOCKS

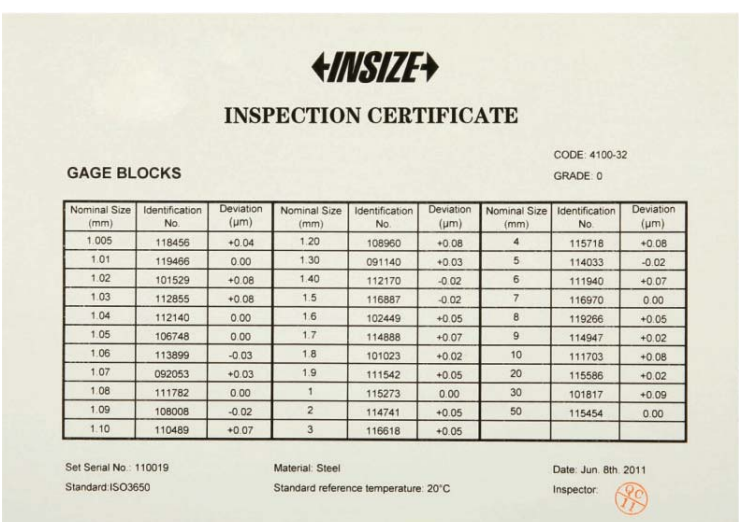
Accuracy according to ISO3650

Nominal length (mm)	Grade 0		Grade 1		Grade 2	
	Limit deviation of length	Tolerance for the variation in length	Limit deviation of length	Tolerance for the variation in length	Limit deviation of length	Tolerance for the variation in length
over 0.5 to 10	±0.12μm	0.10μm	±0.20μm	0.16μm	±0.45μm	0.30μm
over 10 to 25	±0.14μm	0.10μm	±0.30μm	0.16μm	±0.60μm	0.30μm
over 25 to 50	±0.20μm	0.10μm	±0.40μm	0.18μm	±0.80μm	0.30μm
over 50 to 75	±0.25μm	0.12μm	±0.50μm	0.18μm	±1.00μm	0.35μm
over 75 to 100	±0.30μm	0.12μm	±0.60μm	0.20μm	±1.20μm	0.35μm
over 100 to 150	±0.40μm	0.14μm	±0.80μm	0.20μm	±1.60μm	0.40μm
over 150 to 200	±0.50μm	0.16μm	±1.00μm	0.25μm	±2.00μm	0.40μm
over 200 to 250	±0.60μm	0.16μm	±1.20μm	0.25μm	±2.40μm	0.45μm
over 250 to 300	±0.70μm	0.18μm	±1.40μm	0.25μm	±2.80μm	0.50μm
over 300 to 400	±0.90μm	0.20μm	±1.80μm	0.30μm	±3.60μm	0.50μm
over 400 to 500	±1.10μm	0.25μm	±2.20μm	0.35μm	±4.40μm	0.60μm
over 500 to 600	±1.30μm	0.25μm	±2.60μm	0.40μm	±5.00μm	0.70μm
over 600 to 700	±1.50μm	0.30μm	±3.00μm	0.45μm	±6.00μm	0.70μm
over 700 to 800	±1.70μm	0.30μm	±3.40μm	0.50μm	±6.50μm	0.80μm
over 800 to 900	±1.90μm	0.35μm	±3.80μm	0.50μm	±7.50μm	0.90μm
over 900 to 1000	±2.00μm	0.40μm	±4.20μm	0.60μm	±8.00μm	1.00μm

Grade and application

Grade	Application
0	To be used as basic standards in calibration laboratories by skilled inspection staff, to calibrate or set high accuracy measuring instruments, to calibrate gage blocks of grade 1 and 2.
1	To be used in inspection rooms, to check gages, inspect high accuracy parts and set measuring instruments.
2	To be used in workshops, to check production gages, set measuring instruments and mount tools.

Inspection certificate



INSIZE

INSPECTION CERTIFICATE

CODE: 4100-32

GRADE: 0

GAGE BLOCKS

Nominal Size (mm)	Identification No.	Deviation (μm)	Nominal Size (mm)	Identification No.	Deviation (μm)	Nominal Size (mm)	Identification No.	Deviation (μm)
1.005	118456	+0.04	1.20	108960	+0.08	4	115718	+0.08
1.01	119466	0.00	1.30	091140	+0.03	5	114033	-0.02
1.02	101529	+0.08	1.40	112170	-0.02	6	111940	+0.07
1.03	112855	+0.08	1.5	116887	-0.02	7	116970	0.00
1.04	112140	0.00	1.6	102449	+0.05	8	119266	+0.05
1.05	106748	0.00	1.7	114888	+0.07	9	114947	+0.02
1.06	113899	-0.03	1.8	101023	+0.02	10	111703	+0.08
1.07	092053	+0.03	1.9	111542	+0.05	20	115586	+0.02
1.08	111782	0.00	1	115273	0.00	30	101817	+0.09
1.09	108008	-0.02	2	114741	+0.05	50	115454	0.00
1.10	110489	+0.07	3	116618	+0.05			

Set Serial No.: 110019

Standard:ISO3650

Material: Steel

Standard reference temperature: 20°C

Date: Jun. 8th. 2011

Inspector:

CERAMIC GAGE BLOCK SET

MANUFACTURER INSPECTION CERTIFICATE

4105-87

- Made of ceramic, extremely wear resistance and corrosion resistance, excellent dimension stability
- Meet ISO3650
- Supplied with manufacturer inspection certificate

Blocks per set	Blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
112	1.0005		1	4105-112	4105-1112
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
103	1.005		1	4105-103	4105-1103
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
88	1.0005		1	4105-88	4105-188
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-100	10	10		
87	1.001-1.009	0.001	9	4105-87	4105-187
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-100	10	10		
76	1.005		1	4105-76	4105-176
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-40	10	4		
	50-100	25	3		
56	0.5		1	4105-56	4105-156
	1.001-1.009	0.001	9		
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-24	1	24		
	25-100	25	4		

Blocks per set	Blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
47	1.005		1	4105-47A	4105-147A
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-24	1	24		
	25-100	25	4		
47	1.005		1	4105-47	4105-147
	1.01-1.19	0.01	19		
	1.2-1.9	0.1	8		
	1-9	1	9		
	10-100	10	10		
46	1.001-1.009	0.001	9	4105-46	4105-146
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-100	10	10		
34	1.0005		1	4105-34	4105-134
	1.001-1.009	0.001	9		
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-5	1	5		
	10		1		
32	1.005		1	4105-32	4105-132
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-30	10	3		
	50		1		
8	125-175	25	3	4105-8	4105-18
	200-250	50	2		
	300-500	100	3		

CARBIDE GAGE BLOCK SET

- Made of carbide, extremely wear resistance and corrosion resistance, excellent dimension stability
- Meet ISO3650
- Supplied with manufacturer inspection certificate

4164-32

Blocks per set	Blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
122	1.0005		1	4164-122	4164-1122
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	1.6-1.9	0.1	4		
	0.5-24.5	0.5	49		
	30-100	10	8		
	25-75	50	2		
112	1.0005		1	4164-112	4164-1112
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
103	1.005		1	4164-103	4164-1103
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
87	1.001-1.009	0.001	9	4164-87	4164-187
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-100	10	10		
83	0.5		1	4164-83	4164-183
	1		1		
	1.005		1		
	1.01-1.49	0.01	49		
	1.5-1.9	0.1	5		
	2-9.5	0.5	16		
	10-100	10	10		

Blocks per set	Blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
76	1.005		1	4164-76	4164-176
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-40	10	4		
	50-100	25	3		
47	1.005		1	4164-47A	4164-147A
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-24	1	24		
	25-100	25	4		
47	1.005		1	4164-47	4164-147
	1.01-1.19	0.01	19		
	1.2-1.9	0.1	8		
	1-9	1	9		
	10-100	10	10		
46	1.001-1.009	0.001	9	4164-46	4164-146
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-100	10	10		
32	1.005		1	4164-32	4164-132
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-30	10	3		
	50		1		

STEEL GAGE BLOCK SET

MANUFACTURER INSPECTION CERTIFICATE

4100-87

- Made of alloy steel
- Meet ISO3650
- Supplied with manufacturer inspection certificate

Blocks per set	Blocks included in set			Code		
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1	Grade 2
122	1.0005		1	4100-122	4100-1122	4100-2122
	1.001-1.009	0.001	9			
	1.01-1.49	0.01	49			
	1.6-1.9	0.1	4			
	0.5-24.5	0.5	49			
	30-100	10	8			
	25-75	50	2			
112	1.0005		1	4100-112	4100-1112	4100-2112
	1.001-1.009	0.001	9			
	1.01-1.49	0.01	49			
	0.5-24.5	0.5	49			
	25-100	25	4			
103	1.005		1	4100-103	4100-1103	4100-2103
	1.01-1.49	0.01	49			
	0.5-24.5	0.5	49			
	25-100	25	4			
88	1.0005		1	4100-88	4100-188	4100-288
	1.001-1.009	0.001	9			
	1.01-1.49	0.01	49			
	0.5-9.5	0.5	19			
	10-100	10	10			
87	1.001-1.009	0.001	9	4100-87	4100-187	4100-287
	1.01-1.49	0.01	49			
	0.5-9.5	0.5	19			
	10-100	10	10			
83	0.5		1	4100-83	4100-183	4100-283
	1		1			
	1.005		1			
	1.01-1.49	0.01	49			
	1.5-1.9	0.1	5			
	2-9.5	0.5	16			
	10-100	10	10			

To be continued

Continued from previous page

Blocks per set	Blocks included in set			Code		
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1	Grade 2
76	1.005		1	4100-76	4100-176	4100-276
	1.01-1.49	0.01	49			
	0.5-9.5	0.5	19			
	10-40	10	4			
	50-100	25	3			
56	0.5		1	4100-56	4100-156	4100-256
	1.001-1.009	0.001	9			
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9			
	1-24	1	24			
	25-100	25	4			
47	1.005		1	4100-47A	4100-147A	4100-247A
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9			
	1-24	1	24			
	25-100	25	4			
47	1.005		1	4100-47	4100-147	4100-247
	1.01-1.19	0.01	19			
	1.2-1.9	0.1	8			
	1-9	1	9			
	10-100	10	10			
46	1.001-1.009	0.001	9	4100-46	4100-146	4100-246
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9			
	1-9	1	9			
	10-100	10	10			
34	1.0005		1	4100-34	4100-134	4100-234
	1.001-1.009	0.001	9			
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9			
	1-5	1	5			
	10		1			
32	1.005		1	4100-32	4100-132	4100-232
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9			
	1-9	1	9			
	10-30	10	3			
	50		1			
9	1.001-1.009	0.001	9	4100-9	4100-19	4100-29
9	0.991-0.999	0.001	9	4100-9A	4100-19A	4100-29A
8	125-175	25	3	4100-8	4100-18	4100-28
	200-250	50	2			
	300-500	100	3			

INDIVIDUAL CERAMIC GAGE BLOCK

MANUFACTURER INSPECTION CERTIFICATE

4106-A80

Code explanation:

4106-X□□□□□

- A for grade 0
- B for grade 1

Code examples:

Size	Grade	Code
0.5mm	0	4106-AD5
10mm	1	4106-B10

- Made of ceramic, extremely wear resistance and corrosion resistance
- Meet ISO3650
- Supplied with manufacturer inspection certificate

Size	Code
0.5mm	4106-XD5
1mm	4106-X1
1.0005mm	4106-X1D0005
1.001mm	4106-X1D001
1.002mm	4106-X1D002
1.003mm	4106-X1D003
1.004mm	4106-X1D004
1.005mm	4106-X1D005
1.006mm	4106-X1D006
1.007mm	4106-X1D007
1.008mm	4106-X1D008
1.009mm	4106-X1D009
1.01mm	4106-X1D01
1.02mm	4106-X1D02
1.03mm	4106-X1D03
1.04mm	4106-X1D04
1.05mm	4106-X1D05
1.06mm	4106-X1D06
1.07mm	4106-X1D07
1.08mm	4106-X1D08
1.09mm	4106-X1D09
1.1mm	4106-X1D1
1.11mm	4106-X1D11
1.12mm	4106-X1D12
1.13mm	4106-X1D13
1.14mm	4106-X1D14
1.15mm	4106-X1D15
1.16mm	4106-X1D16
1.17mm	4106-X1D17
1.18mm	4106-X1D18
1.19mm	4106-X1D19
1.2mm	4106-X1D2
1.21mm	4106-X1D21
1.22mm	4106-X1D22

Size	Code
1.23mm	4106-X1D23
1.24mm	4106-X1D24
1.25mm	4106-X1D25
1.26mm	4106-X1D26
1.27mm	4106-X1D27
1.28mm	4106-X1D28
1.29mm	4106-X1D29
1.3mm	4106-X1D3
1.31mm	4106-X1D31
1.32mm	4106-X1D32
1.33mm	4106-X1D33
1.34mm	4106-X1D34
1.35mm	4106-X1D35
1.36mm	4106-X1D36
1.37mm	4106-X1D37
1.38mm	4106-X1D38
1.39mm	4106-X1D39
1.4mm	4106-X1D4
1.41mm	4106-X1D41
1.42mm	4106-X1D42
1.43mm	4106-X1D43
1.44mm	4106-X1D44
1.45mm	4106-X1D45
1.46mm	4106-X1D46
1.47mm	4106-X1D47
1.48mm	4106-X1D48
1.49mm	4106-X1D49
1.5mm	4106-X1D5
1.6mm	4106-X1D6
1.7mm	4106-X1D7
1.8mm	4106-X1D8
1.9mm	4106-X1D9
2mm	4106-X2
2.5mm	4106-X2D5

Size	Code
3mm	4106-X3
3.5mm	4106-X3D5
4mm	4106-X4
4.5mm	4106-X4D5
5mm	4106-X5
5.1mm	4106-X5D1
5.5mm	4106-X5D5
6mm	4106-X6
6.5mm	4106-X6D5
7mm	4106-X7
7.5mm	4106-X7D5
7.7mm	4106-X7D7
8mm	4106-X8
8.5mm	4106-X8D5
9mm	4106-X9
9.5mm	4106-X9D5
10mm	4106-X10
10.3mm	4106-X10D3
10.5mm	4106-X10D5
11mm	4106-X11
11.5mm	4106-X11D5
12mm	4106-X12
12.5mm	4106-X12D5
12.9mm	4106-X12D9
13mm	4106-X13
13.5mm	4106-X13D5
14mm	4106-X14
14.5mm	4106-X14D5
15mm	4106-X15
15.5mm	4106-X15D5
16mm	4106-X16
16.5mm	4106-X16D5
17mm	4106-X17
17.5mm	4106-X17D5

Size	Code
17.6mm	4106-X17D6
18mm	4106-X18
18.5mm	4106-X18D5
19mm	4106-X19
19.5mm	4106-X19D5
20mm	4106-X20
20.2mm	4106-X20D2
20.5mm	4106-X20D5
21mm	4106-X21
21.5mm	4106-X21D5
22mm	4106-X22
22.5mm	4106-X22D5
22.8mm	4106-X22D8
23mm	4106-X23
23.5mm	4106-X23D5
24mm	4106-X24
24.5mm	4106-X24D5
25mm	4106-X25
30mm	4106-X30
40mm	4106-X40
41.3mm	4106-X41D3
50mm	4106-X50
60mm	4106-X60
70mm	4106-X70
75mm	4106-X75
80mm	4106-X80
90mm	4106-X90
100mm	4106-X100
125mm	4106-X125
131.4mm	4106-X131D4
150mm	4106-X150

INDIVIDUAL STEEL GAGE BLOCK

CUSTOM-MADE

CAN SUPPLY ANY SIZES WITHIN 0.5 ~ 1000MM, SUCH AS 72.672MM
SIZE<100MM: MOQ 6PCS PER SIZE
SIZE>100MM: MOQ 3PCS PER SIZE

INSIZE MANUFACTURER INSPECTION CERTIFICATE

Code explanation:

4101-X□□□□□

- **A for grade 0**
- **B for grade 1**
- **C for grade 2**

Code examples:

Size	Grade	Code
0.5mm	0	4101-AD5
1mm	1	4101-B1
10.5mm	2	4101-C10D5

4101-A70

- Made of alloy steel
- Meet ISO3650
- Supplied with manufacturer inspection certificate

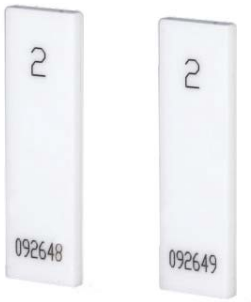
Size	Code
0.5mm	4101-XD5
0.991mm	4101-XD991
0.992mm	4101-XD992
0.993mm	4101-XD993
0.994mm	4101-XD994
0.995mm	4101-XD995
0.996mm	4101-XD996
0.997mm	4101-XD997
0.998mm	4101-XD998
0.999mm	4101-XD999
1mm	4101-X1
1.0005mm	4101-X1D0005
1.001mm	4101-X1D001
1.002mm	4101-X1D002
1.003mm	4101-X1D003
1.004mm	4101-X1D004
1.005mm	4101-X1D005
1.006mm	4101-X1D006
1.007mm	4101-X1D007
1.008mm	4101-X1D008
1.009mm	4101-X1D009
1.01mm	4101-X1D01
1.02mm	4101-X1D02
1.03mm	4101-X1D03
1.04mm	4101-X1D04
1.05mm	4101-X1D05
1.06mm	4101-X1D06
1.07mm	4101-X1D07
1.08mm	4101-X1D08
1.09mm	4101-X1D09
1.1mm	4101-X1D1
1.11mm	4101-X1D11
1.12mm	4101-X1D12
1.13mm	4101-X1D13
1.14mm	4101-X1D14
1.15mm	4101-X1D15
1.16mm	4101-X1D16
1.17mm	4101-X1D17
1.18mm	4101-X1D18

Size	Code
1.19mm	4101-X1D19
1.2mm	4101-X1D2
1.21mm	4101-X1D21
1.22mm	4101-X1D22
1.23mm	4101-X1D23
1.24mm	4101-X1D24
1.25mm	4101-X1D25
1.26mm	4101-X1D26
1.27mm	4101-X1D27
1.28mm	4101-X1D28
1.29mm	4101-X1D29
1.3mm	4101-X1D3
1.31mm	4101-X1D31
1.32mm	4101-X1D32
1.33mm	4101-X1D33
1.34mm	4101-X1D34
1.35mm	4101-X1D35
1.36mm	4101-X1D36
1.37mm	4101-X1D37
1.38mm	4101-X1D38
1.39mm	4101-X1D39
1.4mm	4101-X1D4
1.41mm	4101-X1D41
1.42mm	4101-X1D42
1.43mm	4101-X1D43
1.44mm	4101-X1D44
1.45mm	4101-X1D45
1.46mm	4101-X1D46
1.47mm	4101-X1D47
1.48mm	4101-X1D48
1.49mm	4101-X1D49
1.5mm	4101-X1D5
1.6mm	4101-X1D6
1.7mm	4101-X1D7
1.8mm	4101-X1D8
1.9mm	4101-X1D9
2mm	4101-X2
2.5mm	4101-X2D5
3mm	4101-X3

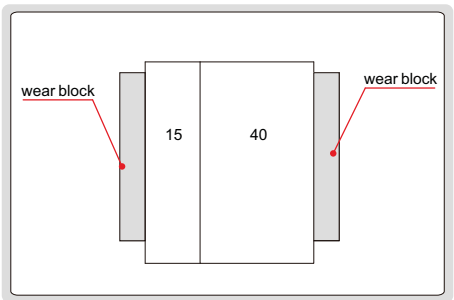
Size	Code
3.5mm	4101-X3D5
4mm	4101-X4
4.5mm	4101-X4D5
5mm	4101-X5
5.1mm	4101-X5D1
5.5mm	4101-X5D5
6mm	4101-X6
6.5mm	4101-X6D5
7mm	4101-X7
7.5mm	4101-X7D5
7.7mm	4101-X7D7
8mm	4101-X8
8.5mm	4101-X8D5
9mm	4101-X9
9.5mm	4101-X9D5
10mm	4101-X10
10.3mm	4101-X10D3
10.5mm	4101-X10D5
11mm	4101-X11
11.5mm	4101-X11D5
12mm	4101-X12
12.5mm	4101-X12D5
12.9mm	4101-X12D9
13mm	4101-X13
13.5mm	4101-X13D5
14mm	4101-X14
14.5mm	4101-X14D5
15mm	4101-X15
15.5mm	4101-X15D5
16mm	4101-X16
16.5mm	4101-X16D5
17mm	4101-X17
17.5mm	4101-X17D5
17.6mm	4101-X17D6
18mm	4101-X18
18.5mm	4101-X18D5
19mm	4101-X19
19.5mm	4101-X19D5
20mm	4101-X20

Size	Code
20.2mm	4101-X20D2
20.5mm	4101-X20D5
21mm	4101-X21
21.5mm	4101-X21D5
22mm	4101-X22
22.5mm	4101-X22D5
22.8mm	4101-X22D8
23mm	4101-X23
23.5mm	4101-X23D5
24mm	4101-X24
24.5mm	4101-X24D5
25mm	4101-X25
30mm	4101-X30
35mm	4101-X35
40mm	4101-X40
41.3mm	4101-X41D3
45mm	4101-X45
50mm	4101-X50
60mm	4101-X60
70mm	4101-X70
75mm	4101-X75
80mm	4101-X80
90mm	4101-X90
100mm	4101-X100
125mm	4101-X125
131.4mm	4101-X131D4
150mm	4101-X150
175mm	4101-X175
200mm	4101-X200
250mm	4101-X250
300mm	4101-X300
400mm	4101-X400
500mm	4101-X500
600mm	4101-X600
700mm	4101-X700
750mm	4101-X750
800mm	4101-X800
900mm	4101-X900
1000mm	4101-X1000

WEAR BLOCK SET



4111-2



Blocks per set	Size	Material	Code	
			Grade 0	Grade 1
2	1.0mm	ceramic	**4111-1**	**4111-11**
2	1.0mm	alloy steel	**4111-1A**	**4111-11A**
2	2.0mm	ceramic	**4111-2**	**4111-12**
2	2.0mm	alloy steel	**4111-2A**	**4111-12A**

- Protect the measuring surfaces of gage blocks from excessive wear
- Meet ISO3650
- Supplied with manufacturer inspection certificate

MICROMETER INSPECTION GAGE BLOCK SET

4107-10

- One piece of optical flat is included in **4107-10, 4107-101**
- Meet ISO3650/grade 0
- Supplied with manufacturer inspection certificate

Code	Material	Blocks included in set	Applicable micrometer	Optical flat
4107-10	ceramic	2.5mm, 5.1mm, 7.7mm, 10.3mm, 12.9mm, 15mm, 17.6mm, 20.2mm, 22.8mm, 25mm, optical flat	0-25mm	included
4107-101	alloy steel	2.5mm, 5.1mm, 7.7mm, 10.3mm, 12.9mm, 15mm, 17.6mm, 20.2mm, 22.8mm, 25mm, optical flat	0-25mm	included
4107-112	alloy steel	25mm, 27.5mm, 30.1mm, 32.7mm, 35.3mm, 37.9mm, 40mm, 42.6mm, 45.2mm, 47.8mm, 50mm	25-50mm	not included
4107-113	alloy steel	50mm, 52.5mm, 55.1mm, 57.7mm, 60.3mm, 62.9mm, 65mm, 67.6mm, 70.2mm, 72.8mm, 75mm	50-75mm	not included
4107-114	alloy steel	75mm, 77.5mm, 80.1mm, 82.7mm, 85.3mm, 87.9mm, 90mm, 92.6mm, 95.2mm, 97.8mm, 100mm	75-100mm	not included

CALIPER INSPECTION GAGE BLOCK SET

4108-3005

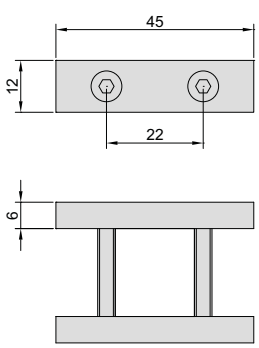
- Meet ISO3650/grade 2
- Supplied with manufacturer inspection certificate

Code	Material	Blocks per set	Blocks included in set (mm)	Applicable caliper (mm)
4108-3005	alloy steel	5	30, 41.3, 131.4, 243.5, 281.2	0-150, 0-200, 0-300

GAGE BLOCK HOLDER

6883-4

Unit: mm



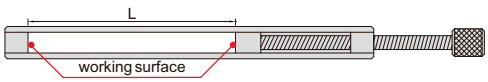
- Made of aluminum
- To be used with individual steel gage block (code **4101**) as Go and No-Go gage

Code	Applicable gage block size
6883-1	1.5 - 5mm
6883-2	5 - 10mm
6883-3	10 - 15mm
6883-4	15 - 20mm
6883-5	20 - 25mm

To be used as Go and No-Go gage

GAGE BLOCK ACCESSORY

6881-A3

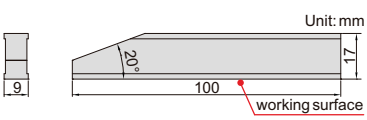


Code	Name	Clamping range*(L)
6881-A1	holder	0-25mm
6881-A2	holder	25-50mm
6881-A3	holder	50-100mm
6881-A4	holder	100-200mm
6881-A5	holder	200-300mm
6881-A6**	holder	300-500mm

*The actural clamping range should deduct the width of jaws

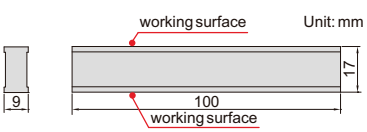
Not suitable for base **6881-B

6881-C



Code	Name	Remark
6881-C	plain jaw	made of carbide, supplied in pair

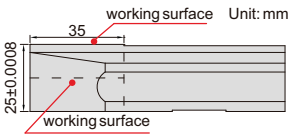
6881-D



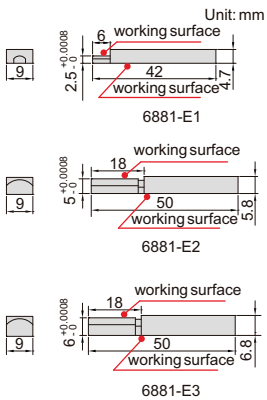
Code	Name	Remark
6881-D	parallel jaw	made of carbide

6881-B

Code	Name
6881-B	base

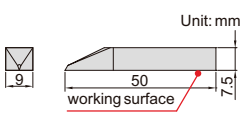


6881-E2



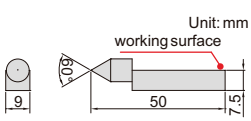
Code	Name	Size	Remark
6881-E1	half round jaw	2.5mm	made of carbide, supplied in pair
6881-E2	half round jaw	5.0mm	made of carbide, supplied in pair
6881-E3	half round jaw	6.0mm	made of carbide, supplied in pair

6881-F



Code	Name	Remark
6881-F	scriber	made of carbide

6881-G



Code	Name	Remark
6881-G	centre point	the tip is made of carbide

To be continued

Continued from previous page

GAGE BLOCK ACCESSORY SET

Code	Mark
6881-S17	17pcs (including the below items)

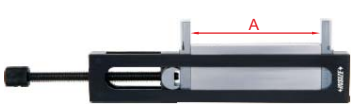
holder, 0-25mm (code 6881-A1)	1pc
holder, 25-50mm (code 6881-A2)	1pc
holder, 50-100mm (code 6881-A3)	1pc
holder, 100-200mm (code 6881-A4)	1pc
holder, 200-300mm (code 6881-A5)	1pc
base (code 6881-B)	1pc
plain jaw (code 6881-C)	1 pair
parallel jaw (code 6881-D)	1pc
half round jaw, 2.5mm (code 6881-E1)	1 pair
half round jaw, 5.0mm (code 6881-E2)	1 pair
half round jaw, 6.0mm (code 6881-E3)	1 pair
scriber (code 6881-F)	1pc
centre point (code 6881-G)	1pc

6881-S17

application

(plain jaw+holder)
set zero

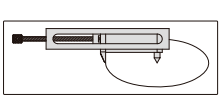
(base+holder+scriber)
measure height or scribe



(half round jaw+holder)
measure size A

(plain jaw+parallel jaw+holder)
Go and No Go inspection

(half round jaw+holder)
measure inside diameter



(scriber+centre point+holder)
scribe circle

CYLINDER GAGE BLOCK

CUSTOM-MADE
CAN SUPPLY ANY LENGTH, SUCH AS 80.672MM

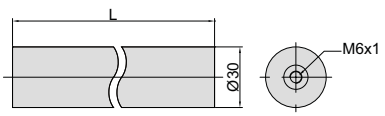
MANUFACTURER INSPECTION CERTIFICATE

Code	Length(L)
4001-25*	25mm
4001-50*	50mm
4001-75*	75mm
4001-100*	100mm
4001-200*	200mm
4001-300*	300mm
4001-400*	400mm
4001-500*	500mm

*Supplied with manufacturer inspection certificate

- Made of special alloy steel, hardness HRC64, high stability, wear resistance and easy combination
- Meet ISO3650 grade 1
- Can be connected with M6x1 screw and combined to any sizes up to 4m

Unit: mm



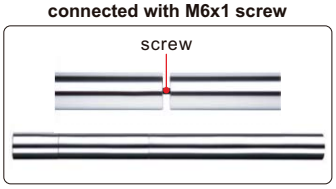
can be combined to any sizes up to 4m

Combination 1: combined by several standard size cylinder gage blocks and one custom size cylinder gage block
For example: 500 (standard) + 200 (standard) + 25.832 (custom)=725.832mm
Note: in order to reduce cost, custom size should be within 100mm

Combination 2: combined by standard size cylinder gage blocks and rectangular gage blocks
For example: 500 (cylinder) + 200 (cylinder) +21.5 (rectangular) +2.33 (rectangular)+2.002 (rectangular)=725.832mm

high stability in vertical position, suitable for checking height gages

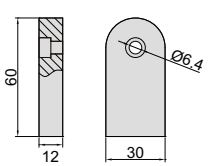
connected with M6x1 screw



INTERNAL BLOCKS

4001-A

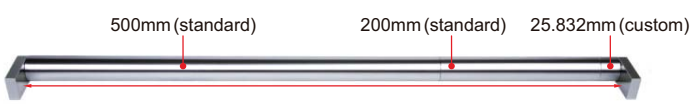
Unit: mm



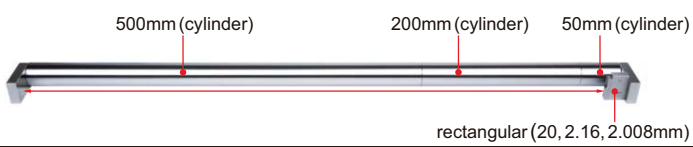
- Can be attached to cylinder and rectangular gage blocks
- Made of special alloy steel, hardness HRC64, high stability, wear resistance and easy combination
- Supplied in a matched pair

Code	Size	Flatness
4001-A	12mm	0.2μm

Combination 1: combined by several standard size cylinder gage blocks and one custom size cylinder gage block
For example: 500 (standard) + 200 (standard) + 25.832 (custom)=725.832mm
Note: in order to reduce cost, custom size should be within 100mm



Combination 2: combined by standard size cylinder gage blocks and rectangular gage blocks
For example: 500 (cylinder) + 200 (cylinder) +50 (rectangular)-20 (rectangular) -2.16 (rectangular)-2.008 (rectangular)=725.832mm



CALIPER/HEIGHT GAGE CHECKER

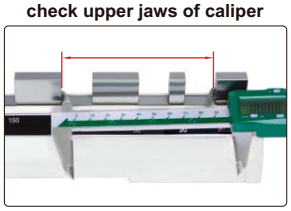
MANUFACTURER INSPECTION CERTIFICATE

horizontal

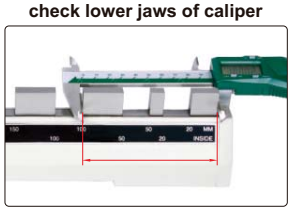
vertical

6884-300

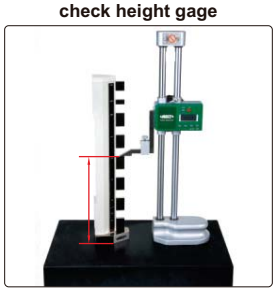
check upper jaws of caliper



check lower jaws of caliper

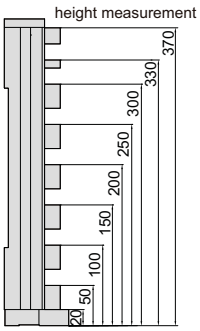


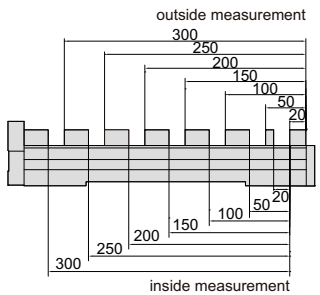
check height gage



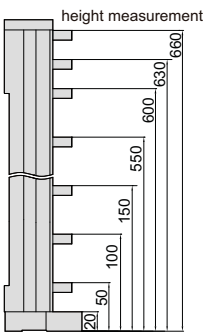
- To check calipers and height gages
- Constructed with steel gage blocks

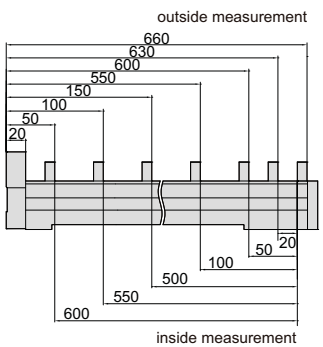
Unit: mm



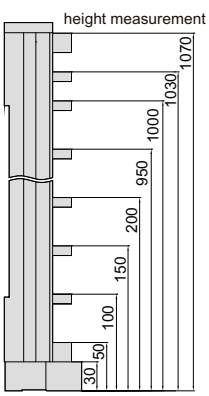


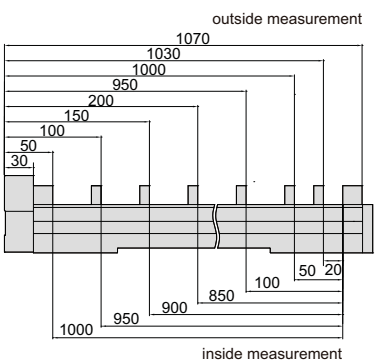
6884-300





6884-600





6884-1000

(mm)

Code	Size	Range of inside measurement	Range of outside measurement	Range of height measurement	Accuracy
6884-300*	0-300mm	20,50,100,150,200,250,300	20, 50, 100, 150, 200, 250, 300	20,50,100,150,200,250,300,330,370	±5μm
6884-600*	0-600mm	20,50,100,150,200,250,300, 350,400,450,500,550,600	20,50,100,150,200,250,300,350, 400,450,500,550,600,630,660	20,50,100,150,200,250,300,350, 400,450,500,550,600,630,660	±7μm
6884-1000*	0-1000mm	20,50,100,150,200,250,300,350, 400,450,500,550,600,650,700, 750,800,850,900,950,1000	30,50,100,150,200,250,300,350,400, 450,500,550,600,650,700,750,800, 850,900,950,1000,1030,1070	30,50,100,150,200,250,300,350,400, 450,500,550,600,650,700,750,800, 850,900,950,1000,1030,1070	±7μm

*Supplied with manufacturer inspection certificate

INSIDE MICROMETER ACCESSORY

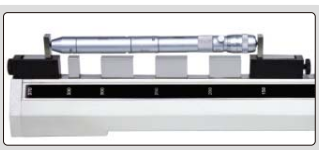
6884-A3

- Supplied with a pair of 5mm carbide gage blocks, ISO3650 grade 0

Code	Applicable caliper/height gage checker
6884-A3*	0-300mm
6884-A6*	0-600mm
6884-A10*	0-1000mm

*Supplied with manufacturer inspection certificate

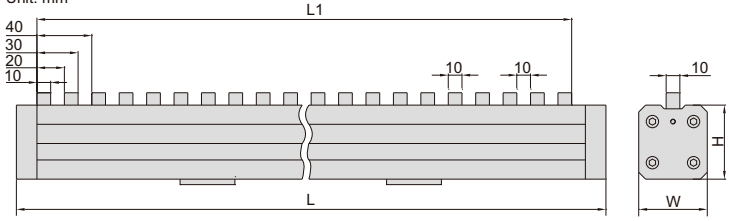
set inside micrometer



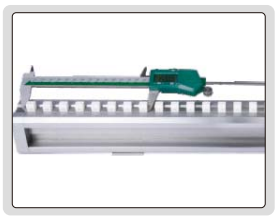
CHECK MASTER

MANUFACTURER INSPECTION CERTIFICATE

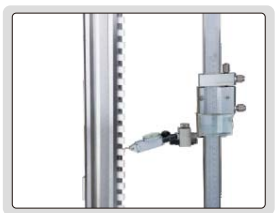
Unit: mm



horizontal orientation



vertical orientation



6882-600A

- To check the accuracy of table movement of machine tools, to calibrate height gages and CMMs
- Ceramic gage blocks
- Can be used in either vertical and horizontal orientation
- Supplied with manufacturer inspection certificate

(mm)

Code	Range	Step	Accuracy	Parallelism of blocks	L	L1	H	W
6882-300A	300mm	10mm	±2.5μm	1.2μm	350	310	49	45
6882-450A	450mm	10mm	±3.5μm	1.5μm	510	470	54	50
6882-600A	600mm	10mm	±3.5μm	1.5μm	650	610	54	50

ANGLE GAGE BLOCK SET

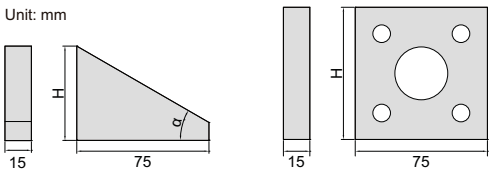
Code	Blocks per set	Angle	Step	Quantity
4109-7A	7	15°10'		1
		30°20'		1
		45°30'		1
		50°		1
		60°40'		1
		75°50'		1
		90°/90°/90°/90°		1
4109-36A	36	10°-20°	1°	11
		30°-70°	10°	5
		45°		1
		15°10'-15°50'	10'	5
		15°1'-15°9'	1'	9
		10°00'30"		1
		80°/81°/100°/99°		1
		89°10'/89°20'/90°50'/90°40'		1
		89°30'/89°40'/90°30'/90°20'		1
		90°/90°/90°/90°		1

4109-7A

- Standard for angle measurement
- Accuracy ±10"

ANGLE GAGE BLOCK

Unit: mm



- Accuracy: ±2"
- To inspect protractor, taper gage, index plate, index head and goniometer, can also be used to set angle
- Made of special alloy steel, hardness HRC64, high stability, wear resistance and easy combination
- Can be combined to any angle with interval 6 seconds after combination (6", 12", 18", ... , 360°)

4002-15

Individual

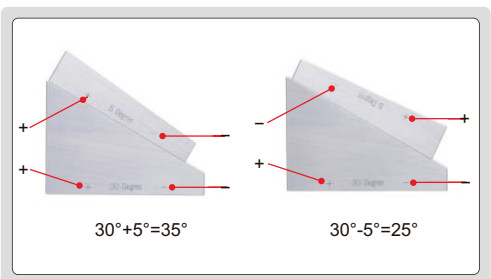
Code	Angle (α)	H(mm)
4002-A1 *	1°	11.5
4002-A3 *	3°	14.0
4002-A5 *	5°	16.5
4002-A9 *	9°	22.0
4002-A15 *	15°	30. 5
4002-A27 *	27°	48.0
4002-A30 *	30°	53.5
4002-A41 *	41°	75.0
4002-A45 *	45°	84.0
4002-B1 *	1'	10.0
4002-B3 *	3'	10.0
4002-B5 *	5'	10.0
4002-B9 *	9'	10.0
4002-B20 *	20'	10.0
4002-B27 *	27'	10.0
4002-B30 *	30'	10.0
4002-C6 *	6"	10.0
4002-C12 *	12"	10.0
4002-C18 *	18"	10.0
4002-C30 *	30"	10.0
4002-D *	90°/90°/90°/90°	75.0

Set

Code	Angle (α)	Total Quantity
4002-13*	1°, 3°, 9°, 27°, 41°, 1', 3', 9', 27', 6", 18", 30", 90°/90°/90°/90°	13
4002-15*	1°, 3°, 5°, 15°, 30°, 45°, 1', 3', 5', 20', 30', 6", 12", 30", 90°/90°/90°/90°	15

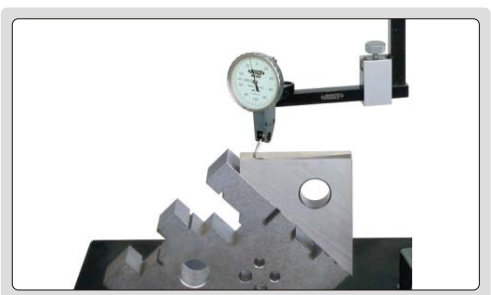
*Supplied with manufacturer inspection certificate

combination



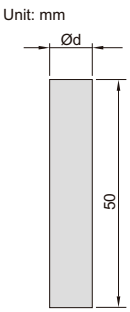
set angle of plate

inspect angle



PIN GAGE SET

4166-6D



- Made of alloy steel
- Hardness HRC62-65
- Diameter accuracy: ±1μm

Code	Diameter Ød (mm)	Step	Pin gages per set
4166-411	1.0, 1.1, 1.2, ····5.0	0.1mm	41
4166-511	5.0, 5.1, 5.2, ····10.0	0.1mm	51
4166-512	10.0, 10.1, 10.2, ····15.0	0.1mm	51
4166-513	15.0, 15.1, 15.2, ····20.0	0.1mm	51

Code	Diameter Ød (mm)	Step	Pin gages per set
4166-2S	1.00, 1.01, 1.02, ····2.00	0.01mm	101
4166-3S	2.00, 2.01, 2.02, ····3.00	0.01mm	101
4166-4S	3.00, 3.01, 3.02, ····4.00	0.01mm	101
4166-5S	4.00, 4.01, 4.02, ····5.00	0.01mm	101
4166-6S	5.00, 5.01, 5.02, ····6.00	0.01mm	101
4166-7S	6.00, 6.01, 6.02, ····7.00	0.01mm	101
4166-8S	7.00, 7.01, 7.02, ····8.00	0.01mm	101
4166-9S	8.00, 8.01, 8.02, ····9.00	0.01mm	101
4166-10S	9.00, 9.01, 9.02, ····10.00	0.01mm	101

Code	Diameter Ød (mm)	Step	Pin gages per set
4166-0D	0.20, 0.21, 0.22, ····0.50	0.01mm	31
4166-1	0.50, 0.51, 0.52, ····1.00	0.01mm	51
4166-1D	1.00, 1.01, 1.02, ····1.50	0.01mm	51
4166-2	1.50, 1.51, 1.52, ····2.00	0.01mm	51
4166-2D	2.00, 2.01, 2.02, ····2.50	0.01mm	51
4166-3	2.50, 2.51, 2.52, ····3.00	0.01mm	51
4166-3D	3.00, 3.01, 3.02, ····3.50	0.01mm	51
4166-4	3.50, 3.51, 3.52, ····4.00	0.01mm	51
4166-4D	4.00, 4.01, 4.02, ····4.50	0.01mm	51
4166-5	4.50, 4.51, 4.52, ····5.00	0.01mm	51
4166-5D	5.00, 5.01, 5.02, ····5.50	0.01mm	51
4166-6	5.50, 5.51, 5.52, ····6.00	0.01mm	51
4166-6D	6.00, 6.01, 6.02, ····6.50	0.01mm	51
4166-7	6.50, 6.51, 6.52, ····7.00	0.01mm	51
4166-7D	7.00, 7.01, 7.02, ····7.50	0.01mm	51
4166-8	7.50, 7.51, 7.52, ····8.00	0.01mm	51
4166-8D	8.00, 8.01, 8.02, ····8.50	0.01mm	51
4166-9	8.50, 8.51, 8.52, ····9.00	0.01mm	51
4166-9D	9.00, 9.01, 9.02, ····9.50	0.01mm	51
4166-10	9.50, 9.51, 9.52, ····10.00	0.01mm	51

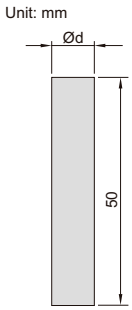
Code	Diameter Ød (mm)	Step	Pin gages per set
4166-10D	10.00, 10.01, 10.02, ····10.50	0.01mm	51
4166-11	10.50, 10.51, 10.52, ····11.00	0.01mm	51
4166-11D	11.00, 11.01, 11.02, ····11.50	0.01mm	51
4166-12	11.50, 11.51, 11.52, ····12.00	0.01mm	51
4166-12D	12.00, 12.01, 12.02, ····12.50	0.01mm	51
4166-13	12.50, 12.51, 12.52, ····13.00	0.01mm	51
4166-13D	13.00, 13.01, 13.02, ····13.50	0.01mm	51
4166-14	13.50, 13.51, 13.52, ····14.00	0.01mm	51
4166-14D	14.00, 14.01, 14.02, ····14.50	0.01mm	51
4166-15	14.50, 14.51, 14.52, ····15.00	0.01mm	51
4166-15D	15.00, 15.01, 15.02, ····15.50	0.01mm	51
4166-16	15.50, 15.51, 15.52, ····16.00	0.01mm	51
4166-16D	16.00, 16.01, 16.02, ····16.50	0.01mm	51
4166-17	16.50, 16.51, 16.52, ····17.00	0.01mm	51
4166-17D	17.00, 17.01, 17.02, ····17.50	0.01mm	51
4166-18	17.50, 17.51, 17.52, ····18.00	0.01mm	51
4166-18D	18.00, 18.01, 18.02, ····18.50	0.01mm	51
4166-19	18.50, 18.51, 18.52, ····19.00	0.01mm	51
4166-19D	19.00, 19.01, 19.02, ····19.50	0.01mm	51
4166-20	19.50, 19.51, 19.52, ····20.00	0.01mm	51

INDIVIDUAL PIN GAGE

- Diameter range: Ø0.20 - Ø20.00mm
- Diameter accuracy: ±1μm
- Made of alloy steel
- Hardness HRC62-65
- Optional accessory: wooden box

Diameter Ød (mm)	Diameter Ød (mm)
0.20, 0.21, 0.22, 0.23, ···· 1.00	10.01, 10.02, 10.03, 10.04, ···· 11.00
1.01, 1.02, 1.03, 1.04, ···· 2.00	11.01, 11.02, 11.03, 11.04, ···· 12.00
2.01, 2.02, 2.03, 2.04, ···· 3.00	12.01, 12.02, 12.03, 12.04, ···· 13.00
3.01, 3.02, 3.03, 3.04, ···· 4.00	13.01, 13.02, 13.03, 13.04, ···· 14.00
4.01, 4.02, 4.03, 4.04, ···· 5.00	14.01, 14.02, 14.03, 14.04, ···· 15.00
5.01, 5.02, 5.03, 5.04, ···· 6.00	15.01, 15.02, 15.03, 15.04, ···· 16.00
6.01, 6.02, 6.03, 6.04, ···· 7.00	16.01, 16.02, 16.03, 16.04, ···· 17.00
7.01, 7.02, 7.03, 7.04, ···· 8.00	17.01, 17.02, 17.03, 17.04, ···· 18.00
8.01, 8.02, 8.03, 8.04, ···· 9.00	18.01, 18.02, 18.03, 18.04, ···· 19.00
9.01, 9.02, 9.03, 9.04, ···· 10.00	19.01, 19.02, 19.03, 19.04, ···· 20.00

4110-9D98



Code
4110-xxxx

Ordering examples:

Diameter	Code
0.21mm	4110-0D21
5.56mm	4110-5D56
16.00mm	4110-16D00

Note : "D" stands for "."

CUSTOM-MADE PIN GAGE

- Custom-made pin gages, diameter range Ø0.200 ~ Ø30.000mm with three decimal, for example 0.211mm, 5.562mm, 16.298mm
- Diameter accuracy: ±1μm
- Made of alloy steel
- Hardness HRC62-65
- Optional accessory: wooden box

Code	Diameter range Ød (mm)
4118-xxxxx*	0.200 ~ 30.000

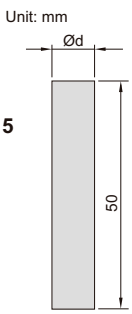
*Supplied with manufacturer inspection certificate

Ordering examples:

Diameter	Code
0.211mm	4118-0D211
5.562mm	4118-5D562
16.298mm	4118-16D298

Note: "D" stands for "."

4118-8D015



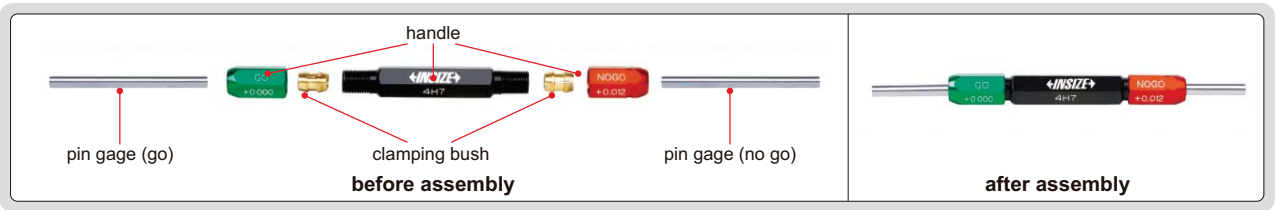
BOX FOR PIN GAGES

- For individual pin gages (**4110** and **4118** series)

Code	Applicable pin gage diameter Ød (mm)	Quantity of pin gages
7340	0.20 - 10.00	51pcs
7340-101	0.20 - 10.00	101pcs
7340-201	10.00 - 15.00	51pcs
7340-202	15.00 - 20.00	51pcs

7340

PIN GAGE HANDLE



Handle

clamping bush

Code	Applicable pin gage diameter (mm)	Including	
		Handle	Clamping bush (mm)
7341-0S	0.2 - 1.02	1pc	6 pairs (the clamping range are 0.2-0.38, 0.38-0.51, 0.51-0.64, 0.64-0.76, 0.76 - 0.89, 0.89 - 1.02)
7341-1S	1.02 - 1.91	1pc	7 pairs (the clamping range are 1.02 - 1.14, 1.14 - 1.27, 1.27 - 1.40, 1.40 - 1.52, 1.52 - 1.65, 1.65 - 1.78, 1.78 - 1.91)
7341-2S	1.91 - 3.33	1pc	8 pairs (the clamping range are 1.91 - 2.08, 2.08 - 2.26, 2.26 - 2.44, 2.44 - 2.62, 2.62 - 2.79, 2.79 - 2.97, 2.97 - 3.15, 3.15 - 3.33)
7341-3S	3.33 - 4.57	1pc	7 pairs (the clamping range are 3.33 - 3.51, 3.51 - 3.68, 3.68 - 3.86, 3.86 - 4.04, 4.04 - 4.22, 4.22 - 4.39, 4.39 - 4.57)
7341-4S	4.57 - 5.79	1pc	6 pairs (the clamping range are 4.57 - 4.78, 4.78 - 4.98, 4.98 - 5.18, 5.18 - 5.38, 5.38 - 5.59, 5.59 - 5.79)
7341-5S	5.79 - 7.14	1pc	6 pairs (the clamping range are 5.79 - 5.99, 5.99 - 6.20, 6.20 - 6.40, 6.40 - 6.63, 6.63 - 6.88, 6.88 - 7.14)
7341-6S	7.14 - 8.66	1pc	6 pairs (the clamping range are 7.14 - 7.39, 7.39 - 7.65, 7.65 - 7.90, 7.90 - 8.15, 8.15 - 8.41, 8.41 - 8.66)

Code	Applicable pin gage diameter (mm)	Including	
		Handle	Clamping bush (mm)
7341-7S	8.66 - 10.31	1pc	6 pairs (the clamping range are 8.66 - 8.92, 8.92 - 9.17, 9.17 - 9.42, 9.42 - 9.70, 9.70 - 10.01, 10.01 - 10.31)
7341-8S	10.31 - 11.81	1pc	4 pairs (the clamping range are 10.31 - 10.67, 10.67 - 11.05, 11.05 - 11.43, 11.43 - 11.81)
7341-9S	11.81 - 12.95	1pc	3 pairs (the clamping range are 11.81 - 12.19, 12.19 - 12.57, 12.57 - 12.95)
7341-10S	12.95 - 14.71	1pc	4 pairs (the clamping range are 12.95 - 13.51, 13.51 - 13.89, 13.89 - 14.30, 14.30 - 14.71)
7341-11S	14.71 -16.13	1pc	4 pairs (the clamping range are 14.71 - 15.09, 15.09 - 15.49, 15.49 - 15.88, 15.88 - 16.13)
7341-12S	16.13 - 17.88	1pc	4 pairs (the clamping range are 16.13 - 16.66, 16.66 - 17.07, 17.07 - 17.48, 17.48 - 17.88)
7341-13S	17.88 -19.30	1pc	4 pairs (the clamping range are 17.88 - 18.26, 18.26 - 18.67, 18.67 - 19.05, 19.05 - 19.30)
7341-14S	19.30 - 20.62	1pc	2 pairs (the clamping range are 19.30 - 19.84, 19.84 - 20.62)

PLAIN PLUG GAGE

CUSTOM-MADE
OTHER CLASSES ARE AVAILABLE, SUCH AS H8, H9
OTHER DIAMETERS ARE AVAILABLE, SUCH AS 19.003mm
OTHER LENGTHS ARE AVAILABLE, SUCH AS 70mm

4124-12

- Supplied with Go and No-Go gages together
- Class H7
- Hardness HRC 60±2
- Standard DIN7150-2

Type A

Type B

Size tolerance of H7

Diameter Ød (mm)	Size tolerance of Go gage (mm)	Size tolerance of No-Go gage (mm)
≥2 ≤3	+0.0005/+0.0025	+0.009/+0.011
>3 ≤6	+0.00075/+0.00325	+0.01075/+0.01325
>6, ≤10	+0.00075/+0.00325	+0.01375/+0.01625
>10, ≤18	+0.001/+0.004	+0.0165/+0.0195
>18, ≤30	+0.001/+0.005	+0.019/+0.023
>30, ≤50	+0.0015/+0.0055	+0.023/+0.027
>50, ≤80	+0.0015/+0.0065	+0.0275/+0.0325
>80, ≤100	+0.002/+0.008	+0.032/+0.038

Code	Diameter Ød	Type
4124-2	2mm	A
4124-3	3mm	A
4124-4	4mm	A
4124-5	5mm	A
4124-6	6mm	A
4124-7	7mm	A
4124-8	8mm	A
4124-9	9mm	A
4124-10	10mm	A
4124-11	11mm	A
4124-12	12mm	A
4124-13	13mm	A
4124-14	14mm	A
4124-15	15mm	A
4124-16	16mm	A

Code	Diameter Ød	Type
4124-17	17mm	A
4124-18	18mm	A
4124-19	19mm	A
4124-20	20mm	A
4124-21	21mm	A
4124-22	22mm	A
4124-23	23mm	A
4124-24	24mm	A
4124-25	25mm	A
4124-26	26mm	A
4124-27	27mm	A
4124-28	28mm	A
4124-29	29mm	A
4124-30	30mm	A
4124-31	31mm	A

Code	Diameter Ød	Type
4124-32	32mm	A
4124-33	33mm	A
4124-34	34mm	A
4124-35	35mm	A
4124-36	36mm	A
4124-37	37mm	A
4124-38	38mm	A
4124-39	39mm	A
4124-40	40mm	A
4124-41	41mm	A
4124-42	42mm	A
4124-43	43mm	A
4124-44	44mm	A
4124-45	45mm	A
4124-46	46mm	A

Code	Diameter Ød	Type
4124-47	47mm	A
4124-48	48mm	A
4124-49	49mm	A
4124-50	50mm	A
4124-52	52mm	B
4124-55	55mm	B
4124-60	60mm	B
4124-65	65mm	B
4124-70	70mm	B
4124-75	75mm	B
4124-80	80mm	B
4124-85	85mm	B
4124-90	90mm	B
4124-95	95mm	B
4124-100	100mm	B

THREAD PLUG GAGE

- Supplied with Go and No-Go gages together
- Class 6H
- Standard ISO1502

4130-10

ATTENTION: BASIC MODEL

INSIZE MANUFACTURER INSPECTION CERTIFICATE

Individual

Code	Size (mm)
4130-2*	M2x0.4
4130-2D2*	M2.2x0.45
4130-2D5*	M2.5x0.45
4130-3*	M3x0.5
4130-3D5*	M3.5x0.6
4130-4*	M4x0.7
4130-5*	M5x0.8

Code	Size (mm)
4130-6*	M6x1
4130-7*	M7x1
4130-8*	M8x1.25
4130-9*	M9x1.25
4130-10*	M10x1.5
4130-11*	M11x1.5
4130-12*	M12x1.75

Code	Size (mm)
4130-14*	M14x2
4130-16*	M16x2
4130-18*	M18x2.5
4130-20*	M20x2.5
4130-22*	M22x2.5
4130-24*	M24x3
4130-27*	M27x3

Code	Size (mm)
4130-30*	M30x3.5
4130-33*	M33x3.5
4130-36*	M36x4
4130-39*	M39x4
4130-42*	M42x4.5
4130-45*	M45x4.5
4130-48*	M48x5

Code	Size (mm)
4130-52*	M52x5
4130-56*	M56x5.5
4130-60*	M60x5.5

*Supplied with manufacturer inspection certificate

Set

Code	Thread plug gages included
4130-S7*	M3x0.5(**4130-3**), M4x0.7(**4130-4**), M5x0.8(**4130-5**), M6x1(**4130-6**), M8x1.25(**4130-8**), M10x1.5(**4130-10**), M12x1.75(**4130-12**)

FINE THREAD PLUG GAGE

MANUFACTURER INSPECTION CERTIFICATE

ATTENTION: BASIC MODEL

- Supplied with Go and No-Go gages together
- Class 6H
- Standard ISO1502

4139-20G

Code	Size (mm)
4139-2B*	M2x0.25
4139-2D2B*	M2.2x0.25
4139-2D5D*	M2.5x0.35
4139-3D*	M3x0.35
4139-3D5D*	M3.5x0.35
4139-4G*	M4x0.5
4139-5G*	M5x0.5
4139-6G*	M6x0.5
4139-6L*	M6x0.75
4139-7G*	M7x0.5
4139-7L*	M7x0.75
4139-8G*	M8x0.5
4139-8L*	M8x0.75
4139-8P*	M8x1
4139-9G*	M9x0.5
4139-9L*	M9x0.75
4139-9P*	M9x1
4139-10G*	M10x0.5
4139-10L*	M10x0.75
4139-10P*	M10x1
4139-10Q*	M10x1.25
4139-11G*	M11x0.5
4139-11L*	M11x0.75
4139-11P*	M11x1
4139-12G*	M12x0.5
4139-12L*	M12x0.75
4139-12P*	M12x1
4139-12Q*	M12x1.25

Code	Size (mm)
4139-12R*	M12x1.5
4139-14G*	M14x0.5
4139-14L*	M14x0.75
4139-14P*	M14x1
4139-14Q*	M14x1.25
4139-14R*	M14x1.5
4139-16G*	M16x0.5
4139-16L*	M16x0.75
4139-16P*	M16x1
4139-16R*	M16x1.5
4139-18G*	M18x0.5
4139-18L*	M18x0.75
4139-18P*	M18x1
4139-18R*	M18x1.5
4139-18T*	M18x2
4139-20G*	M20x0.5
4139-20L*	M20x0.75
4139-20P*	M20x1
4139-20R*	M20x1.5
4139-20T*	M20x2
4139-22G*	M22x0.5
4139-22L*	M22x0.75
4139-22P*	M22x1
4139-22R*	M22x1.5
4139-22T*	M22x2
4139-24L*	M24x0.75
4139-24P*	M24x1
4139-24R*	M24x1.5

Code	Size (mm)
4139-24T*	M24x2
4139-27L*	M27x0.75
4139-27P*	M27x1
4139-27R*	M27x1.5
4139-27T*	M27x2
4139-30L*	M30x0.75
4139-30P*	M30x1
4139-30R*	M30x1.5
4139-30T*	M30x2
4139-30V*	M30x3
4139-33L*	M33x0.75
4139-33P*	M33x1
4139-33R*	M33x1.5
4139-33T*	M33x2
4139-33V*	M33x3
4139-36P*	M36x1
4139-36R*	M36x1.5
4139-36T*	M36x2
4139-36V*	M36x3
4139-39P*	M39x1
4139-39R*	M39x1.5
4139-39T*	M39x2
4139-39V*	M39x3
4139-42P*	M42x1
4139-42R*	M42x1.5
4139-42T*	M42x2
4139-42V*	M42x3
4139-42X*	M42x4

Code	Size (mm)
4139-45P*	M45x1
4139-45R*	M45x1.5
4139-45T*	M45x2
4139-45V*	M45x3
4139-45X*	M45x4
4139-48P*	M48x1
4139-48R*	M48x1.5
4139-48T*	M48x2
4139-48V*	M48x3
4139-48X*	M48x4
4139-52P*	M52x1
4139-52R*	M52x1.5
4139-52T*	M52x2
4139-52V*	M52x3
4139-52X*	M52x4
4139-56P*	M56x1
4139-56R*	M56x1.5
4139-56T*	M56x2
4139-56V*	M56x3
4139-56X*	M56x4
4139-60P*	M60x1
4139-60R*	M60x1.5
4139-60T*	M60x2
4139-60V*	M60x3
4139-60X*	M60x4

*Supplied with manufacturer inspection certificate

THREAD RING GAGE

MANUFACTURER INSPECTION CERTIFICATE

ATTENTION: BASIC MODEL

4120-16

4120-16N

- Go and No-Go gages are supplied separately
- Class 6g
- Standard ISO1502

Individual

Code Go	Code No Go	Size (mm)
4120-2 *	4120-2N *	M2x0.4
4120-2D2 *	4120-2D2N *	M2.2x0.45
4120-2D5 *	4120-2D5N *	M2.5x0.45
4120-3 *	4120-3N *	M3x0.5
4120-3D5 *	4120-3D5N *	M3.5x0.6
4120-4 *	4120-4N *	M4x0.7
4120-5 *	4120-5N *	M5x0.8
4120-6 *	4120-6N *	M6x1
4120-7 *	4120-7N *	M7x1
4120-8 *	4120-8N *	M8x1.25
4120-9 *	4120-9N *	M9x1.25

Code Go	Code No Go	Size (mm)
4120-10 *	4120-10N *	M10x1.5
4120-11 *	4120-11N *	M11x1.5
4120-12 *	4120-12N *	M12x1.75
4120-14 *	4120-14N *	M14x2
4120-16 *	4120-16N *	M16x2
4120-18 *	4120-18N *	M18x2.5
4120-20 *	4120-20N *	M20x2.5
4120-22 *	4120-22N *	M22x2.5
4120-24 *	4120-24N *	M24x3
4120-27 *	4120-27N *	M27x3
4120-30 *	4120-30N *	M30x3.5

Code Go	Code No Go	Size (mm)
4120-33 *	4120-33N *	M33x3.5
4120-36 *	4120-36N *	M36x4
4120-39 *	4120-39N *	M39x4
4120-42 *	4120-42N *	M42x4.5
4120-45 *	4120-45N *	M45x4.5
4120-48 *	4120-48N *	M48x5
4120-52 *	4120-52N *	M52x5
4120-56 *	4120-56N *	M56x5.5
4120-60 *	4120-60N *	M60x5.5

Go ring gage set

Code	Thread ring gages included
4120-S7 *	M3x0.5(**4120-3**), M4x0.7(**4120-4**), M5x0.8(**4120-5**), M6x1(**4120-6**), M8x1.25(**4120-8**), M10x1.5(**4120-10**), M12x1.75(**4120-12**)

No Go ring gage set

Code	Thread ring gages included
4120-S7N *	M3x0.5(**4120-3N**), M4x0.7(**4120-4N**), M5x0.8(**4120-5N**), M6x1(**4120-6N**), M8x1.25(**4120-8N**), M10x1.5(**4120-10N**), M12x1.75(**4120-12N**)

* Supplied with manufacturer inspection certificate

FINE THREAD RING GAGE

ATTENTION:
BASIC MODEL

- Go and No-Go gages are supplied separately
- Class 6g
- Standard ISO1502

4129-10P

4129-10PN

INSIZE
MANUFACTURER
INSPECTION CERTIFICATE

Code Go	Code No Go	Size (mm)
4129-2B*	4129-2BN*	M2x0.25
4129-2D2B*	4129-2D2BN*	M2.2x0.25
4129-2D5D*	4129-2D5DN*	M2.5x0.35
4129-3D*	4129-3DN*	M3x0.35
4129-3D5D*	4129-3D5DN*	M3.5x0.35
4129-4G*	4129-4GN*	M4x0.5
4129-5G*	4129-5GN*	M5x0.5
4129-6G*	4129-6GN*	M6x0.5
4129-6L*	4129-6LN*	M6x0.75
4129-7G*	4129-7GN*	M7x0.5
4129-7L*	4129-7LN*	M7x0.75
4129-8G*	4129-8GN*	M8x0.5
4129-8L*	4129-8LN*	M8x0.75
4129-8P*	4129-8PN*	M8x1
4129-9G*	4129-9GN*	M9x0.5
4129-9L*	4129-9LN*	M9x0.75
4129-9P*	4129-9PN*	M9x1
4129-10G*	4129-10GN*	M10x0.5
4129-10L*	4129-10LN*	M10x0.75
4129-10P*	4129-10PN*	M10x1
4129-10Q*	4129-10QN*	M10x1.25
4129-11G*	4129-11GN*	M11x0.5
4129-11L*	4129-11LN*	M11x0.75
4129-11P*	4129-11PN*	M11x1
4129-12G*	4129-12GN*	M12x0.5
4129-12L*	4129-12LN*	M12x0.75
4129-12P*	4129-12PN*	M12x1
4129-12Q*	4129-12QN*	M12x1.25
4129-12R*	4129-12RN*	M12x1.5
4129-14G*	4129-14GN*	M14x0.5
4129-14L*	4129-14LN*	M14x0.75
4129-14P*	4129-14PN*	M14x1
4129-14Q*	4129-14QN*	M14x1.25
4129-14R*	4129-14RN*	M14x1.5
4129-16G*	4129-16GN*	M16x0.5
4129-16L*	4129-16LN*	M16x0.75
4129-16P*	4129-16PN*	M16x1
4129-16R*	4129-16RN*	M16x1.5
4129-18G*	4129-18GN*	M18x0.5
4129-18L*	4129-18LN*	M18x0.75
4129-18P*	4129-18PN*	M18x1
4129-18R*	4129-18RN*	M18x1.5
4129-18T*	4129-18TN*	M18x2
4129-20G*	4129-20GN*	M20x0.5
4129-20L*	4129-20LN*	M20x0.75
4129-20P*	4129-20PN*	M20x1
4129-20R*	4129-20RN*	M20x1.5
4129-20T*	4129-20TN*	M20x2
4129-22G*	4129-22GN*	M22x0.5
4129-22L*	4129-22LN*	M22x0.75
4129-22P*	4129-22PN*	M22x1
4129-22R*	4129-22RN*	M22x1.5
4129-22T*	4129-22TN*	M22x2
4129-24L*	4129-24LN*	M24x0.75
4129-24P*	4129-24PN*	M24x1
4129-24R*	4129-24RN*	M24x1.5
4129-24T*	4129-24TN*	M24x2
4129-27L*	4129-27LN*	M27x0.75
4129-27P*	4129-27PN*	M27x1
4129-27R*	4129-27RN*	M27x1.5
4129-27T*	4129-27TN*	M27x2
4129-30L*	4129-30LN*	M30x0.75
4129-30P*	4129-30PN*	M30x1
4129-30R*	4129-30RN*	M30x1.5
4129-30T*	4129-30TN*	M30x2
4129-30V*	4129-30VN*	M30x3
4129-33L*	4129-33LN*	M33x0.75
4129-33P*	4129-33PN*	M33x1
4129-33R*	4129-33RN*	M33x1.5
4129-33T*	4129-33TN*	M33x2
4129-33V*	4129-33VN*	M33x3
4129-36P*	4129-36PN*	M36x1
4129-36R*	4129-36RN*	M36x1.5
4129-36T*	4129-36TN*	M36x2
4129-36V*	4129-36VN*	M36x3
4129-39P*	4129-39PN*	M39x1
4129-39R*	4129-39RN*	M39x1.5
4129-39T*	4129-39TN*	M39x2
4129-39V*	4129-39VN*	M39x3
4129-42P*	4129-42PN*	M42x1
4129-42R*	4129-42RN*	M42x1.5
4129-42T*	4129-42TN*	M42x2
4129-42V*	4129-42VN*	M42x3
4129-42X*	4129-42XN*	M42x4
4129-45P*	4129-45PN*	M45x1
4129-45R*	4129-45RN*	M45x1.5
4129-45T*	4129-45TN*	M45x2
4129-45V*	4129-45VN*	M45x3
4129-45X*	4129-45XN*	M45x4
4129-48P*	4129-48PN*	M48x1
4129-48R*	4129-48RN*	M48x1.5
4129-48T*	4129-48TN*	M48x2
4129-48V*	4129-48VN*	M48x3
4129-48X*	4129-48XN*	M48x4
4129-52P*	4129-52PN*	M52x1
4129-52R*	4129-52RN*	M52x1.5
4129-52T*	4129-52TN*	M52x2
4129-52V*	4129-52VN*	M52x3
4129-52X*	4129-52XN*	M52x4
4129-56P*	4129-56PN*	M56x1
4129-56R*	4129-56RN*	M56x1.5
4129-56T*	4129-56TN*	M56x2
4129-56V*	4129-56VN*	M56x3
4129-56X*	4129-56XN*	M56x4
4129-60P*	4129-60PN*	M60x1
4129-60R*	4129-60RN*	M60x1.5
4129-60T*	4129-60TN*	M60x2
4129-60V*	4129-60VN*	M60x3
4129-60X*	4129-60XN*	M60x4

*Supplied with manufacturer inspection certificate

AMERICAN STANDARD THREAD PLUG GAGE

ATTENTION: BASIC MODEL

MANUFACTURER INSPECTION CERTIFICATE

4131-1B1

- Class 2B
- Standard ANSI B1.2

Code	Size
4131-41*	4-40UNC
4131-61*	6-32UNC
4131-81*	8-32UNC
4131-102*	10-32UNF
4131-1B1*	1/4-20UNC
4131-1B2*	1/4-28UNF

Code	Size
4131-5D1*	5/16-18UNC
4131-5D2*	5/16-24UNF
4131-3C1*	3/8-16UNC
4131-3C2*	3/8-24UNF
4131-7D2*	7/16-20UNF
4131-1A1*	1/2-13UNC

Code	Size
4131-1A2*	1/2-20UNF
4131-9D2*	9/16-18UNF
4131-5C1*	5/8-11UNC
4131-5C2*	5/8-18UNF
4131-3B1*	3/4-10UNC
4131-3B2*	3/4-16UNF

*Supplied with manufacturer inspection certificate

AMERICAN STANDARD THREAD RING GAGE

MANUFACTURER INSPECTION CERTIFICATE

ATTENTION: INSPECTED BY MASTER PLUG GAGES INSTEAD OF LENGTH MACHINE

ATTENTION: BASIC MODEL

4121-1B1

4121-1B1N

- Class 2A
- Standard ANSI B1.2

Code (GO)	Code (NOGO)	Size
4121-41*	4121-41N*	4-40UNC
4121-61*	4121-61N*	6-32UNC
4121-81*	4121-81N*	8-32UNC
4121-102*	4121-102N*	10-32UNF
4121-1B1*	4121-1B1N*	1/4-20UNC
4121-1B2*	4121-1B2N*	1/4-28UNF
4121-5D1*	4121-5D1N*	5/16-18UNC
4121-5D2*	4121-5D2N*	5/16-24UNF
4121-3C1*	4121-3C1N*	3/8-16UNC

Code (GO)	Code (NOGO)	Size
4121-3C2*	4121-3C2N*	3/8-24UNF
4121-7D2*	4121-7D2N*	7/16-20UNF
4121-1A1*	4121-1A1N*	1/2-13UNC
4121-1A2*	4121-1A2N*	1/2-20UNF
4121-9D2*	4121-9D2N*	9/16-18UNF
4121-5C1*	4121-5C1N*	5/8-11UNC
4121-5C2*	4121-5C2N*	5/8-18UNF
4121-3B1*	4121-3B1N*	3/4-10UNC
4121-3B2*	4121-3B2N*	3/4-16UNF

*Supplied with manufacturer inspection certificate

METRIC THREAD PLUG GAGE

4641-6

- Class 6H
- Standard ISO1502
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

CLASS 5H OF M1.0, M1.1, M1.2, M1.4 ARE AVAILABLE

Code	Size (mm)
4641-1D6*	M1.6x0.35
4641-2*	M2x0.4
4641-2D5*	M2.5x0.45
4641-3*	M3x0.5
4641-3D5*	M3.5x0.6
4641-4*	M4x0.7

Code	Size (mm)
4641-5*	M5x0.8
4641-6*	M6x1
4641-8*	M8x1.25
4641-10*	M10x1.5
4641-12*	M12x1.75
4641-14*	M14x2

Code	Size (mm)
4641-16*	M16x2
4641-18*	M18x2.5
4641-20*	M20x2.5
4641-22*	M22x2.5
4641-24*	M24x3
4641-27*	M27x3

Code	Size (mm)
4641-30*	M30x3.5
4641-33*	M33x3.5
4641-36*	M36x4
4641-42*	M42x4.5
4641-48*	M48x5

*Supplied with manufacturer calibration certificate

METRIC FINE THREAD PLUG GAGE

4642-12R

- Class 6H
- Standard ISO1502
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

Code	Size (mm)
4642-8G*	M8x0.5
4642-8L*	M8x0.75
4642-8P*	M8x1
4642-10L*	M10x0.75
4642-10P*	M10x1
4642-10Q*	M10x1.25
4642-12P*	M12x1
4642-12Q*	M12x1.25
4642-12R*	M12x1.5
4642-14P*	M14x1
4642-14Q*	M14x1.25
4642-14R*	M14x1.5
4642-16P*	M16x1
4642-16R*	M16x1.5

Code	Size (mm)
4642-18P*	M18x1
4642-18R*	M18x1.5
4642-20P*	M20x1
4642-20R*	M20x1.5
4642-22R*	M22x1.5
4642-24P*	M24x1
4642-24R*	M24x1.5
4642-24T*	M24x2
4642-25R*	M25x1.5
4642-26R*	M26x1.5
4642-27R*	M27x1.5
4642-27T*	M27x2
4642-28R*	M28x1.5
4642-30P*	M30x1

Code	Size (mm)
4642-30R*	M30x1.5
4642-30T*	M30x2
4642-32R*	M32x1.5
4642-33R*	M33x1.5
4642-33T*	M33x2
4642-35R*	M35x1.5
4642-36R*	M36x1.5
4642-36T*	M36x2
4642-38R*	M38x1.5
4642-40R*	M40x1.5
4642-40T*	M40x2
4642-42R*	M42x1.5
4642-42T*	M42x2
4642-45R*	M45x1.5

Code	Size (mm)
4642-45T*	M45x2
4642-48R*	M48x1.5
4642-48T*	M48x2
4642-50R*	M50x1.5
4642-50T*	M50x2
4642-52R*	M52x1.5
4642-52T*	M52x2
4642-55R*	M55x1.5
4642-55T*	M55x2
4642-58R*	M58x1.5
4642-60T*	M60x2

*Supplied with manufacturer calibration certificate

METRIC THREAD RING GAGE

CLASS 6h OF M1.2, M1.4 ARE AVAILABLE

- Class 6g
- Standard ISO1502
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

4631-12

4631-12N

Code (GO)	Code (NOGO)	Size (mm)
4631-1D2*	4631-1D2N*	M1.2x0.25
4631-1D4*	4631-1D4N*	M1.4x0.30
4631-1D6*	4631-1D6N*	M1.6x0.35
4631-2*	4631-2N*	M2x0.4
4631-2D5*	4631-2D5N*	M2.5x0.45
4631-3*	4631-3N*	M3x0.5
4631-3D5*	4631-3D5N*	M3.5x0.6
4631-4*	4631-4N*	M4x0.7
4631-5*	4631-5N*	M5x0.8

Code (GO)	Code (NOGO)	Size (mm)
4631-6*	4631-6N*	M6x1
4631-8*	4631-8N*	M8x1.25
4631-10*	4631-10N*	M10x1.5
4631-12*	4631-12N*	M12x1.75
4631-14*	4631-14N*	M14x2
4631-16*	4631-16N*	M16x2
4631-18*	4631-18N*	M18x2.5
4631-20*	4631-20N*	M20x2.5
4631-22*	4631-22N*	M22x2.5

Code (GO)	Code (NOGO)	Size (mm)
4631-24*	4631-24N*	M24x3
4631-27*	4631-27N*	M27x3
4631-30*	4631-30N*	M30x3.5
4631-33*	4631-33N*	M33x3.5
4631-36*	4631-36N*	M36x4
4631-42*	4631-42N*	M42x4.5
4631-48*	4631-48N*	M48x5

*Supplied with manufacturer calibration certificate

METRIC FINE THREAD RING GAGE

- Class 6g
- Standard ISO1502
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

4632-10Q

4632-10QN

Code (GO)	Code (NOGO)	Size (mm)
4632-8G*	4632-8GN*	M8x0.5
4632-8L*	4632-8LN*	M8x0.75
4632-8P*	4632-8PN*	M8x1
4632-10L*	4632-10LN*	M10x0.75
4632-10P*	4632-10PN*	M10x1
4632-10Q*	4632-10QN*	M10x1.25
4632-12P*	4632-12PN*	M12x1
4632-12Q*	4632-12QN*	M12x1.25
4632-12R*	4632-12RN*	M12x1.5
4632-14P*	4632-14PN*	M14x1
4632-14Q*	4632-14QN*	M14x1.25
4632-14R*	4632-14RN*	M14x1.5
4632-16P*	4632-16PN*	M16x1
4632-16R*	4632-16RN*	M16x1.5
4632-18P*	4632-18PN*	M18x1
4632-18R*	4632-18RN*	M18x1.5
4632-20P*	4632-20PN*	M20x1
4632-20R*	4632-20RN*	M20x1.5

Code (GO)	Code (NOGO)	Size (mm)
4632-22R*	4632-22RN*	M22x1.5
4632-24P*	4632-24PN*	M24x1
4632-24R*	4632-24RN*	M24x1.5
4632-24T*	4632-24TN*	M24x2
4632-25R*	4632-25RN*	M25x1.5
4632-26R*	4632-26RN*	M26x1.5
4632-27R*	4632-27RN*	M27x1.5
4632-27T*	4632-27TN*	M27x2
4632-28R*	4632-28RN*	M28x1.5
4632-30P*	4632-30PN*	M30x1
4632-30R*	4632-30RN*	M30x1.5
4632-30T*	4632-30TN*	M30x2
4632-32R*	4632-32RN*	M32x1.5
4632-33R*	4632-33RN*	M33x1.5
4632-33T*	4632-33TN*	M33x2
4632-35R*	4632-35RN*	M35x1.5
4632-36R*	4632-36RN*	M36x1.5
4632-36T*	4632-36TN*	M36x2

Code (GO)	Code (NOGO)	Size (mm)
4632-38R*	4632-38RN*	M38x1.5
4632-40R*	4632-40RN*	M40x1.5
4632-40T*	4632-40TN*	M40x2
4632-42R*	4632-42RN*	M42x1.5
4632-42T*	4632-42TN*	M42x2
4632-45R*	4632-45RN*	M45x1.5
4632-45T*	4632-45TN*	M45x2
4632-48R*	4632-48RN*	M48x1.5
4632-48T*	4632-48TN*	M48x2
4632-50R*	4632-50RN*	M50x1.5
4632-50T*	4632-50TN*	M50x2
4632-52R*	4632-52RN*	M52x1.5
4632-52T*	4632-52TN*	M52x2
4632-55R*	4632-55RN*	M55x1.5
4632-55T*	4632-55TN*	M55x2
4632-58R*	4632-58RN*	M58x1.5
4632-60T*	4632-60TN*	M60x2

*Supplied with manufacturer calibration certificate

AMERICAN STANDARD THREAD PLUG GAGE

- Class 2B
- Standard ANSI B1.2
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

4643-1B1

Code	Size
4643-41*	4-40UNC
4643-61*	6-32UNC
4643-81*	8-32UNC
4643-102*	10-32UNF
4643-1B1*	1/4-20UNC
4643-1B2*	1/4-28UNF

Code	Size
4643-5D1*	5/16-18UNC
4643-5D2*	5/16-24UNF
4643-3C1*	3/8-16UNC
4643-3C2*	3/8-24UNF
4643-7D2*	7/16-20UNF
4643-1A1*	1/2-13UNC

Code	Size
4643-1A2*	1/2-20UNF
4643-9D2*	9/16-18UNF
4643-5C1*	5/8-11UNC
4643-5C2*	5/8-18UNF
4643-3B1*	3/4-10UNC
4643-3B2*	3/4-16UNF

*Supplied with manufacturer inspection certificate

AMERICAN STANDARD THREAD RING GAGE

- Class 2A
- Standard ANSI B1.2
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

4633-1B1

4633-1B1N

Code (GO)	Code (NOGO)	Size
4633-41*	4633-41N*	4-40UNC
4633-61*	4633-61N*	6-32UNC
4633-81*	4633-81N*	8-32UNC
4633-102*	4633-102N*	10-32UNF
4633-1B1*	4633-1B1N*	1/4-20UNC
4633-1B2*	4633-1B2N*	1/4-28UNF
4633-5D1*	4633-5D1N*	5/16-18UNC
4633-5D2*	4633-5D2N*	5/16-24UNF
4633-3C1*	4633-3C1N*	3/8-16UNC

Code (GO)	Code (NOGO)	Size
4633-3C2*	4633-3C2N*	3/8-24UNF
4633-7D2*	4633-7D2N*	7/16-20UNF
4633-1A1*	4633-1A1N*	1/2-13UNC
4633-1A2*	4633-1A2N*	1/2-20UNF
4633-9D2*	4633-9D2N*	9/16-18UNF
4633-5C1*	4633-5C1N*	5/8-11UNC
4633-5C2*	4633-5C2N*	5/8-18UNF
4633-3B1*	4633-3B1N*	3/4-10UNC
4633-3B2*	4633-3B2N*	3/4-16UNF

*Supplied with manufacturer inspection certificate

NPT THREAD PLUG GAGE

4644-1B18

- American tapered pipe thread for threads with sealant
- Standard ANSI / ASME B1.20.1
- Taper 1:16
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

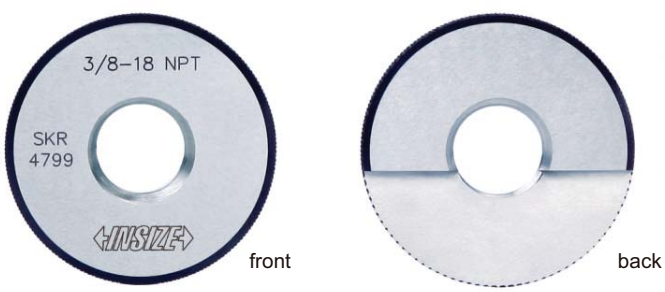
Code	Size
4644-1D27*	1/16x27NPT
4644-1C27*	1/8x27NPT
4644-1B18*	1/4x18NPT
4644-3C18*	3/8x18NPT
4644-1A14*	1/2x14NPT

Code	Size
4644-3B14*	3/4x14NPT
4644-112*	1x11.5NPT
4644-1G12*	1-1/4x11.5NPT
4644-1H12*	1-1/2x11.5NPT
4644-212*	2x11.5NPT

Code	Size
4644-1J8*	2-1/2x8NPT
4644-38*	3x8NPT
4644-1N8*	3-1/2x8NPT
4644-48*	4x8NPT

*Supplied with manufacturer inspection certificate

NPT THREAD RING GAGE



front back

4634-3C18

- American tapered pipe thread for threads with sealant
- Standard ANSI / ASME B1.20.1
- Taper 1:16
- Material: OHNS (Oil Hardened Non-shrinking Steel), stable dimension and wear resistance
- Hardness HRC60-62

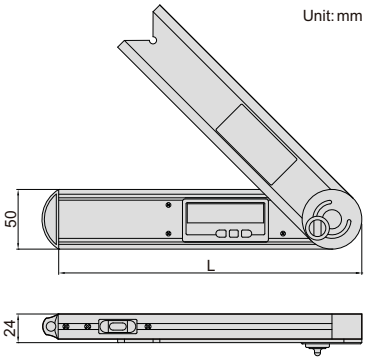
Code	Size
4634-1D27*	1/16x27NPT
4634-1C27*	1/8x27NPT
4634-1B18*	1/4x18NPT
4634-3C18*	3/8x18NPT
4634-1A14*	1/2x14NPT

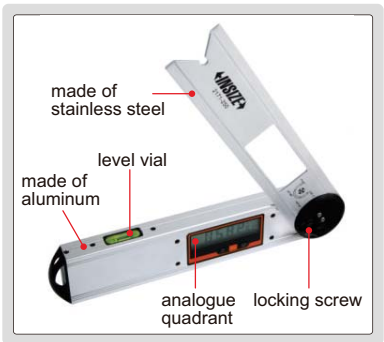
Code	Size
4634-3B14*	3/4x14NPT
4634-112*	1x11.5NPT
4634-1G12*	1-1/4x11.5NPT
4634-1H12*	1-1/2x11.5NPT
4634-212*	2x11.5NPT

Code	Size
4634-1J8*	2-1/2x8NPT
4634-38*	3x8NPT
4634-1N8*	3-1/2x8NPT
4634-48*	4x8NPT

*Supplied with manufacturer inspection certificate

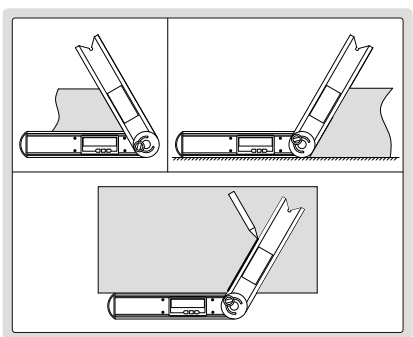
DIGITAL PROTRACTOR





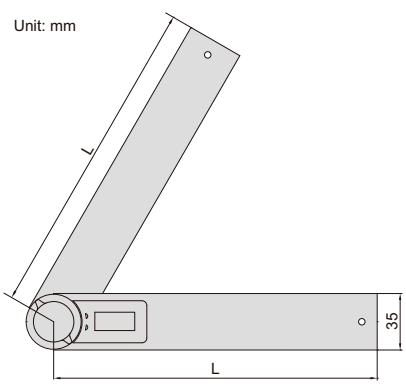
2171-250

- Buttons: ON/OFF, HOLD (keep the reading), ZERO, ABS (absolute and incremental measurement)
- Fix the locking screw at 4 positions for different measuring ranges: 0°~225°, -225°~0°, -45°~180°, -180°~45°
- Remove the locking screw for 360° range
- With level vial
- Battery CR2032
- Automatic power off



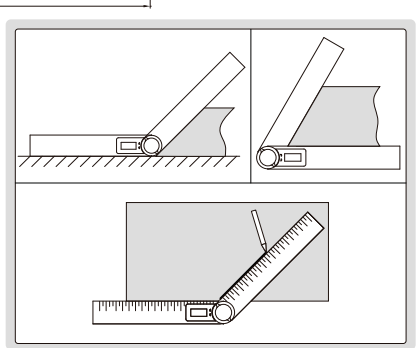
Code	Size (L)	Range	Resolution	Accuracy
2171-250	250mm	0 - 360°	0.05°	±0.15°

DIGITAL PROTRACTOR



2176-300

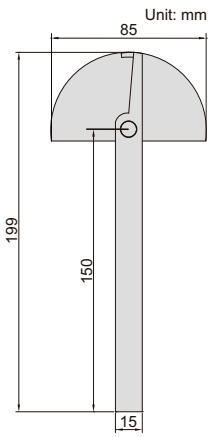
- Buttons: ON/OFF, ZERO
- With clamping screw to lock the blades
- Graduation of blade: 1mm and 1/32"
- CR2032 battery
- Automatic power off



Code	Size(L)	Range	Resolution	Accuracy
2176-200	200mm	0 - 360°	0.1°	±0.3°
2176-300	300mm	0 - 360°	0.1°	±0.3°

PROTRACTOR

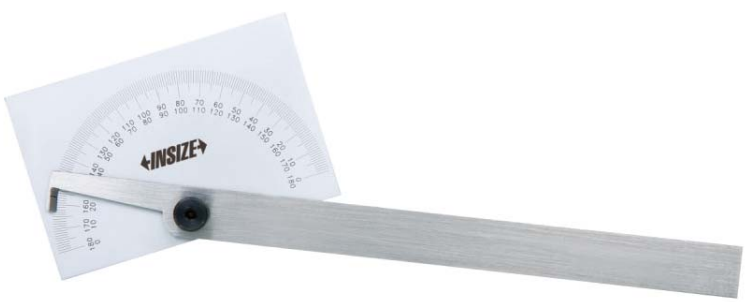
4780-85



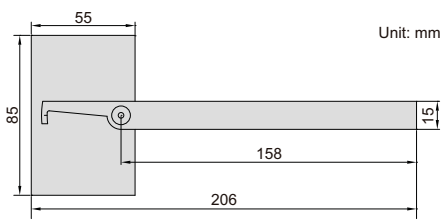
- Made of stainless steel
- Satin chrome plated scale
- With clamping screw

Code	Size	Range	Graduation	Accuracy
4780-85	85x150mm	0 - 180°	1°	±0.3°

PROTRACTOR

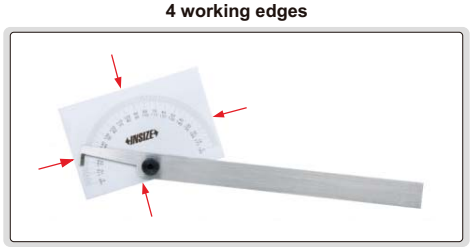


4781-85



- Made of stainless steel
- Satin chrome plated scale
- With clamping screw

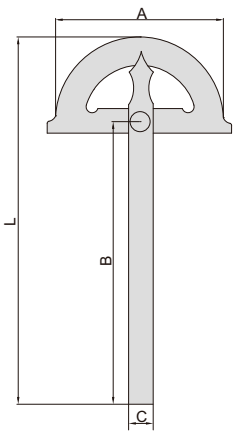
4 working edges



Code	Size	Range	Graduation	Accuracy
4781-85	85x158mm	0 - 180°	1°	±0.3°

PROTRACTOR

4799-180



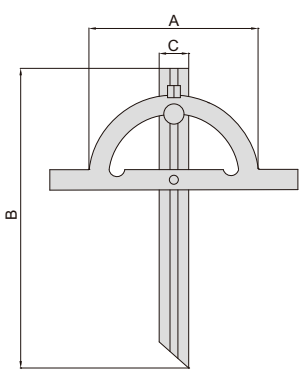
- Made of stainless steel (**4799-1300** is made of carbon steel)
- Satin chrome plated scale
- With clamping screw

(mm)

Code	Size(AxB)	Range	Graduation	Accuracy	L	C
4799-180	80x120mm	0-180°	1°	±0.3°	168	11
4799-1120	120x150mm	0-180°	1°	±0.3°	220	14
4799-1150	150x200mm	0-180°	1°	±0.3°	285	16
4799-1200	200x300mm	0-180°	1°	±0.3°	413	20
4799-1300	300x500mm	0-180°	1°	±0.3°	675	30

PROTRACTOR

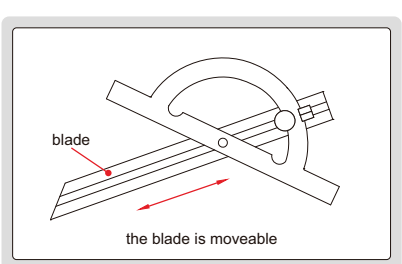
4797-100



- Made of carbon steel
- Satin chrome plated
- With clamping screw
- The blade is moveable

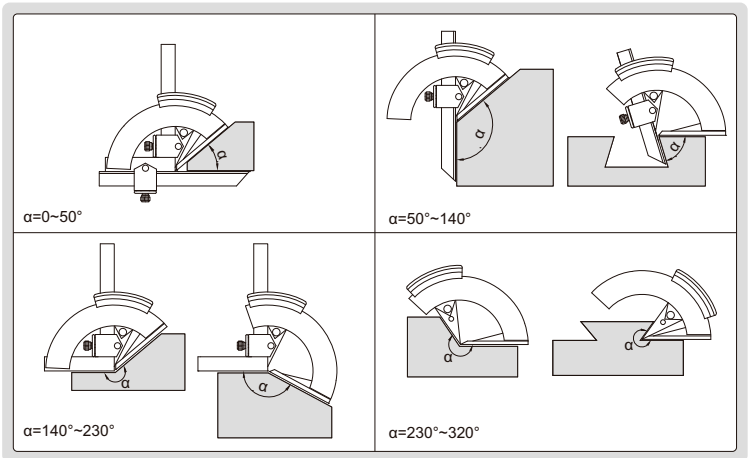
(mm)

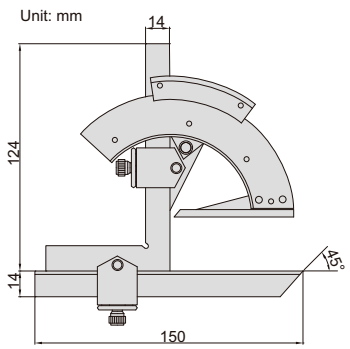
Code	Size (AxB)	Range	Graduation	Accuracy	C
4797-100	100x150mm	10-170°	1°	±0.3°	18
4797-150	150x300mm	10-170°	1°	±0.3°	22
4797-200	200x400mm	10-170°	1°	±0.3°	24
4797-250	250x500mm	10-170°	1°	±0.3°	28
4797-300	300x600mm	10-170°	1°	±0.3°	32



PROTRACTOR

2374-320





- Made of stainless steel
- Satin chrome plated scale

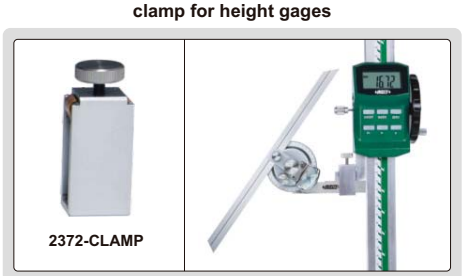
Code	Range	Graduation	Accuracy
2374-320	0 - 320°	2'	±2'

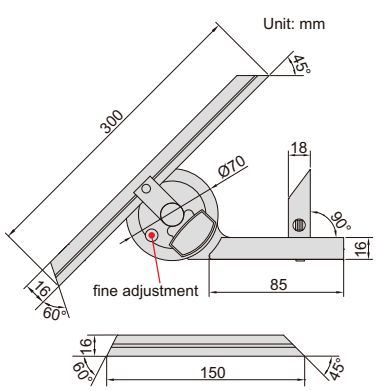
UNIVERSAL PROTRACTOR

150mm blade (included)

2372-360

clamp for height gages

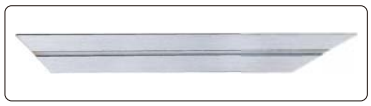




- Parallax-free reading
- Made of stainless steel
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156** and **1351**

Code	Range	Graduation	Accuracy
2372-360	0 - 360°	5'	±5'

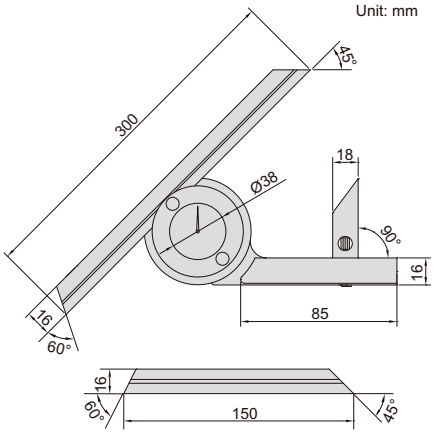
DIAL PROTRACTOR



150mm blade (included)

2373-360

Unit: mm



- Made of stainless steel
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156** and **1351**

Code	Range	Graduation	Accuracy
2373-360	0 - 360°	5'	±5'

clamp for height gages

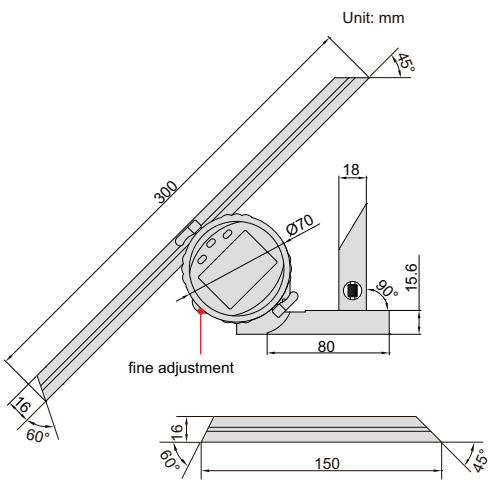
2372-CLAMP

DIGITAL PROTRACTOR

DATA OUTPUT

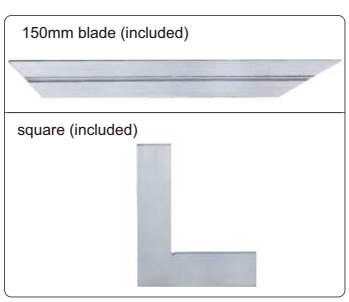
2172-360A

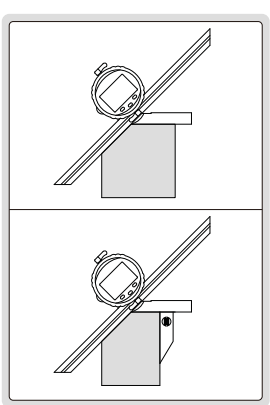
Unit: mm



- Display in degree (for example 32.655°) and degree/minute/second (for example 32°39'30")
- SET button: preset the reading, change measuring direction
- MODE button: choose 0-90°, 0-180° or 0-360° display
- ZERO/ON/OFF button: zero and power on/off
- Battery CR2032, automatic power off
- Data output
- Supplied with square to set 90°
- Made of stainless steel
- Optional accessory: data output cable (code **7305-SPC1A**)

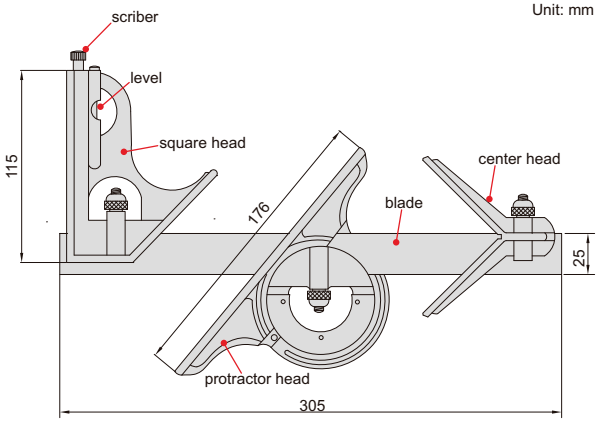
Code	Range	Resolution	Accuracy
2172-360A	0 - 360°	10"/0.005°	±5'



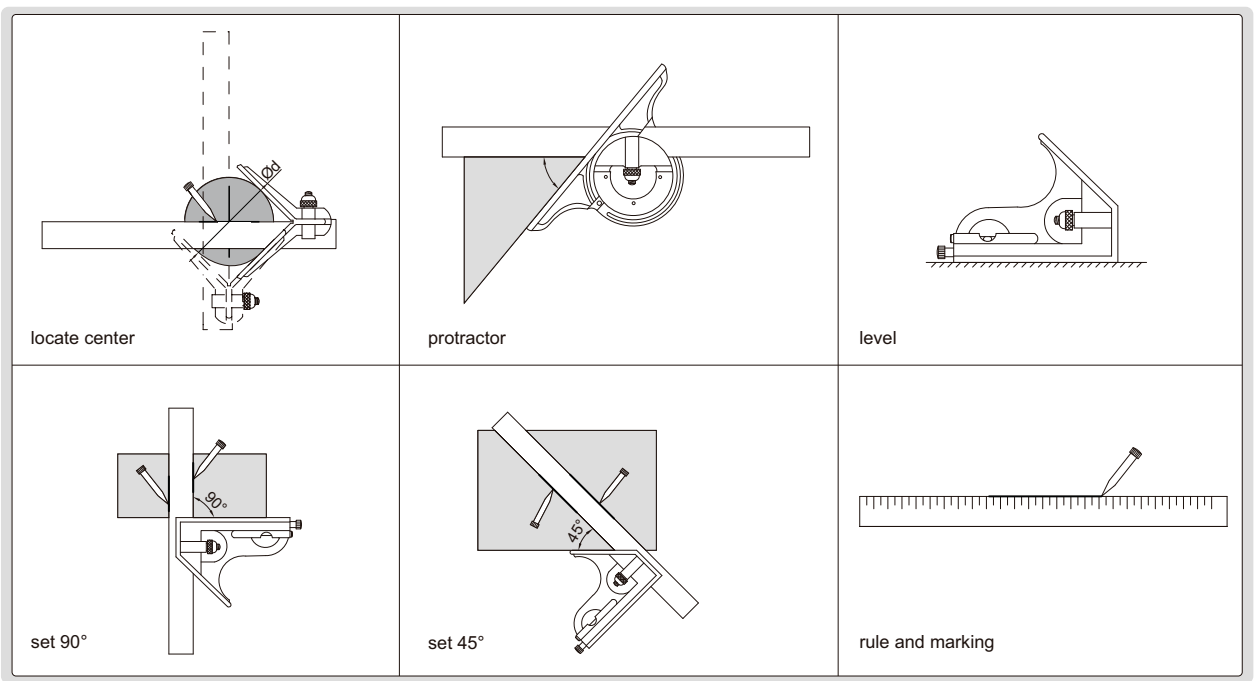


COMBINATION SQUARE SET

Unit: mm



2278-180

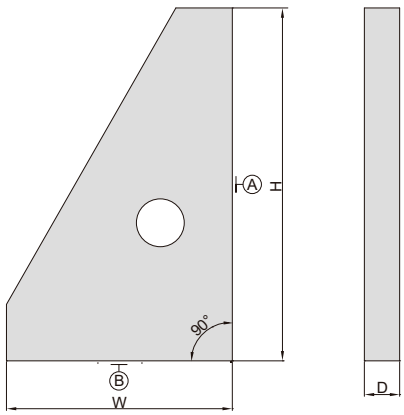


Code
2278-180

- Center head:
  To locate center of cylinder with diameter (Ød): 30 - 100mm
  Accuracy: ±0.15mm
- Protractor head:
  To set the blade at desired angle to an edge of a workpiece, and can be used to measure angles
  Range: 0-180°
  Accuracy: ±7min.
- Square head:
  To set the blade at 90° or 45° to an edge of a workpiece
  Accuracy: ±8min for 90° square, ±10min for 45° square
- Blade:
  Range: 300mm/12",
  Graduation: 0.5mm and 1/32" on front face, 1mm and1/64" on back face
- Optional accessory: rigid rule (code **7113**)

GRANITE SQUARE

4141-250

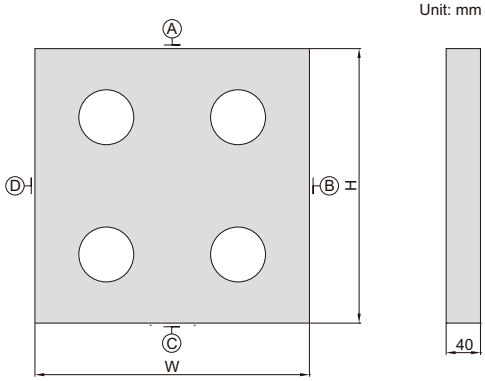


Code	Size (HxW)	Flatness of A	Flatness of B	Squareness of A to B	D
4141-250	250x160mm	1µm	1µm	2µm	25mm
4141-400	400x250mm	1.5µm	1µm	3µm	40mm
4141-630	630x400mm	2µm	1.5µm	4µm	63mm

GRANITE SQUARE

4144-315

Unit: mm

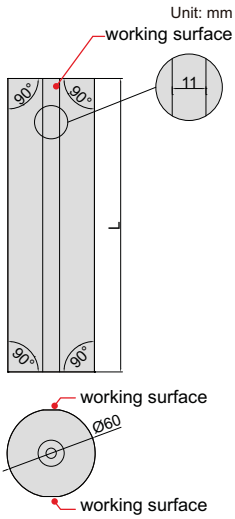


Code	Size (HxW)	Flatness of A, B, C and D	Squareness and parallelism between A, B, C and D
4144-315	315x315mm	1.1µm	2.6µm

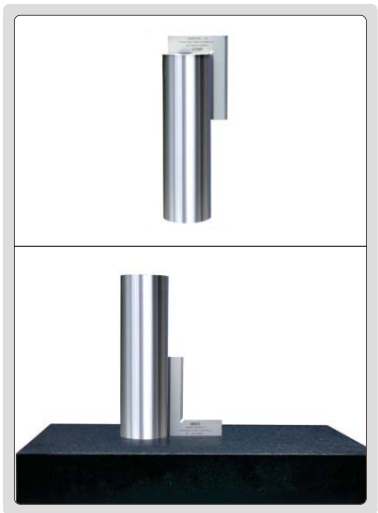
CYLINDER SQUARE

4710-200

Unit: mm



inspect 90° internal and external angles



Code	Length(L)	Squareness
4710-200*	200mm	1μm
4710-300*	300mm	2μm

*Supplied with manufacturer inspection certificate

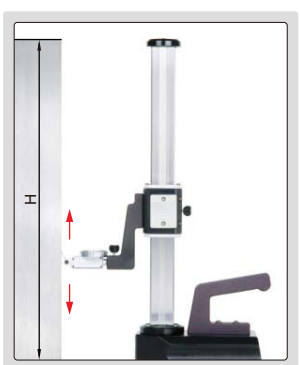
- Made of special alloy steel, hardness HRC58~60
- The handle can be removed

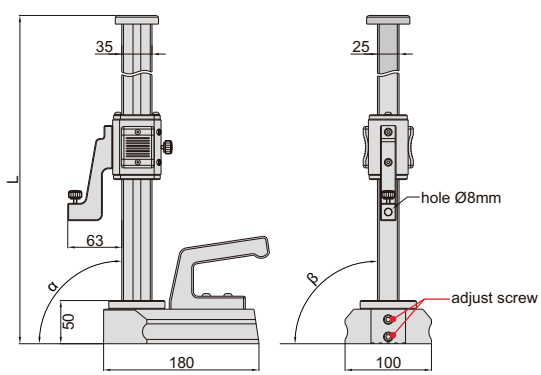
PERPENDICULARITY TESTER

4770-300

dial test indicator is not included

Unit: mm



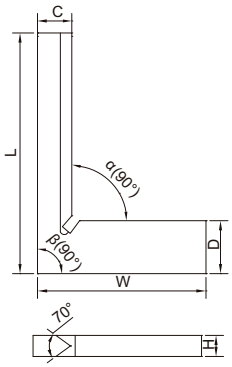


Code	Range(H)	Perpendicularity(α)	Side perpendicularity(β)	L
4770-300	0-300mm	3μm	10μm	460mm
4770-600	0-600mm	5μm	20μm	760mm

- Optional accessory:
  dial test indicators (graduation: 1μm or 2μm),
  cylinder square (code **4710**, for calibration),
  granite square (code **4141**, for calibration)

90° TOOL MAKER SQUARE

4794-040



(mm)

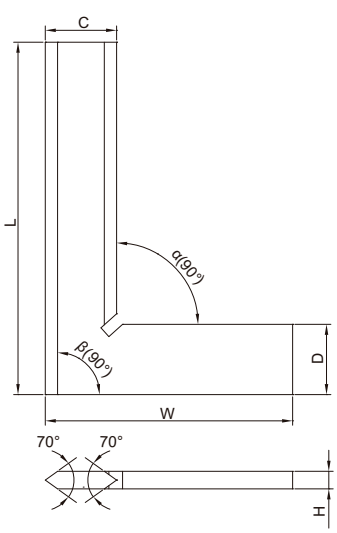
Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4794-025	25x20mm	2.2μm	2.3μm	4	6.5	3.5
4794-040	40x28mm	2.3μm	2.4μm	5.5	8.5	3.5

- DIN875 grade 00
- Beveled edge for inside measurement
- Made of hardened stainless steel

90° BEVELED EDGE SQUARE

- Satin chrome plating
- Beveled edges for inside and outside measurement
- Made of hardened stainless steel

4790-0100



DIN875 grade 00 (mm)

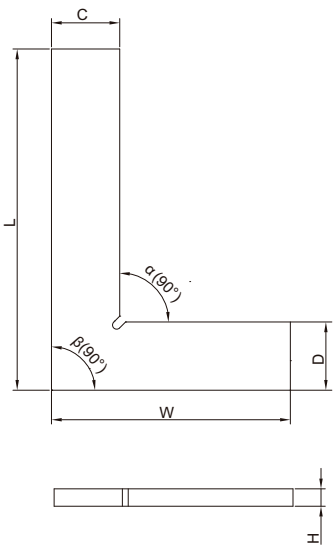
Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-050	50x40mm	2.4μm	2.5μm	13	13	4
4790-075	75x50mm	2.6μm	2.8μm	15	15	4
4790-0100	100x70mm	2.8μm	3.0μm	20	20	5
4790-0150	150x100mm	3.2μm	3.5μm	30	30	6
4790-0200	200x130mm	3.7μm	4.0μm	34	34	7
4790-0250	250x165mm	4.2μm	4.5μm	35	35	7
4790-0300	300x200mm	4.6μm	5.0μm	40	40	8

DIN875 grade 0 (mm)

Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-500	50x40mm	6μm	6μm	13	13	4
4790-750	75x50mm	6μm	7μm	15	15	4
4790-1000	100x70mm	7μm	7μm	20	20	5
4790-1500	150x100mm	7μm	8μm	30	30	6
4790-2000	200x130mm	8μm	9μm	34	34	7
4790-2500	250x165mm	9μm	10μm	35	35	7
4790-3000	300x200mm	10μm	11μm	40	40	8

90° FLAT EDGE SQUARE

4791-100



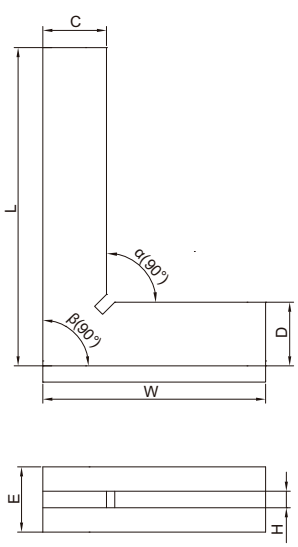
(mm)

Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-50	50x40mm	6μm	6μm	13	13	4
4791-75	75x50mm	6μm	7μm	15	15	4
4791-100	100x70mm	7μm	7μm	20	20	5
4791-150	150x100mm	7μm	8μm	30	30	6
4791-200	200x130mm	8μm	9μm	30	30	7
4791-250	250x165mm	9μm	10μm	35	35	7
4791-300	300x200mm	10μm	11μm	40	40	8

- DIN875 grade 0
- Made of hardened stainless steel

90° FLAT EDGE SQUARE WITH WIDE BASE

4793-100



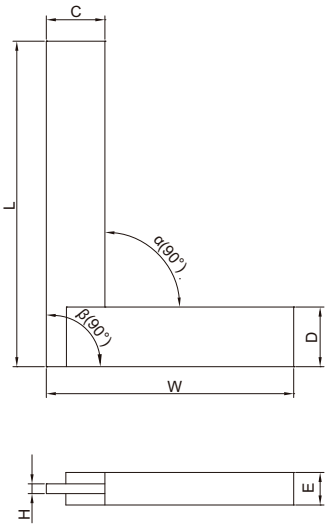
(mm)

Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4793-50	50x40mm	6μm	6μm	13	13	4	13
4793-75	75x50mm	6μm	7μm	15	15	4	15
4793-100	100x70mm	7μm	7μm	20	20	5	20
4793-150	150x100mm	7μm	8μm	30	30	6	30
4793-200	200x130mm	8μm	9μm	30	30	7	30
4793-250	250x165mm	9μm	10μm	35	35	7	35
4793-300	300x200mm	10μm	11μm	40	40	8	40

- DIN875 grade 0
- Made of hardened stainless steel

90° FLAT EDGE SQUARE WITH WIDE BASE

4792-100



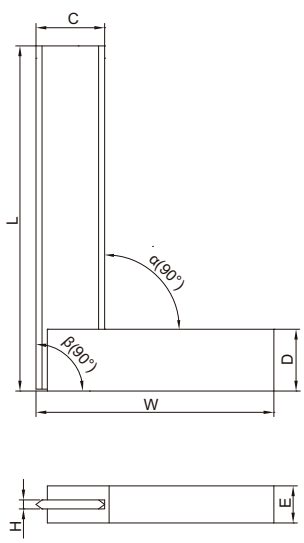
(mm)

Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4792-50	50x40mm	6μm	6μm	12	12	3	10
4792-75	75x50mm	6μm	7μm	14	14	3	10
4792-100	100x70mm	7μm	7μm	18	18	3	10
4792-150	150x100mm	8μm	8μm	22	22	4	12
4792-200	200x130mm	9μm	9μm	25	25	4	12

- DIN875 grade 0
- Made of hardened stainless steel

90° BEVELED EDGE SQUARE WITH WIDE BASE

4795-100



(mm)

Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4795-50	50x40mm	6μm	6μm	12	12	3	10
4795-75	75x50mm	6μm	7μm	14	14	3	10
4795-100	100x70mm	7μm	7μm	18	18	3	10
4795-150	150x100mm	8μm	8μm	22	22	4	12
4795-200	200x130mm	9μm	9μm	25	25	4	12

- DIN875 grade 0
- Beveled edges for inside and outside measurement
- Made of hardened stainless steel

ATTENTION:
LOW ACCURACY

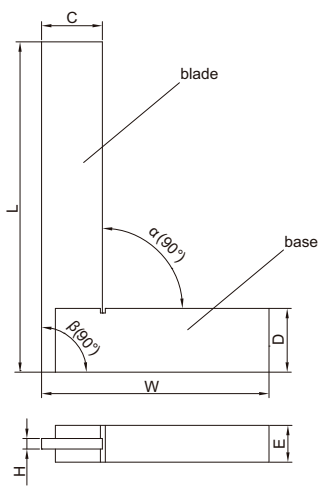
MACHINIST SQUARE WITH WIDE BASE

4707-100

- Economic model
- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardend

(mm)

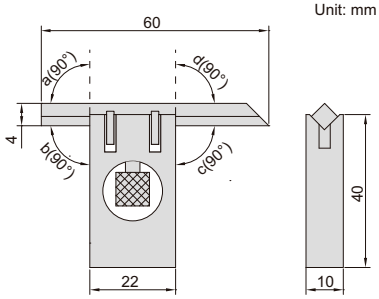
Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4707-50	50x40mm	24μm	25μm	16	12	3	9
4707-75	75x50mm	26μm	28μm	16	16	3	9
4707-100	100x70mm	28μm	30μm	19	19	3	12
4707-150	150x100mm	33μm	35μm	25	25	3	16
4707-200	200x130mm	37μm	40μm	30	32	4	16
4707-250	250x165mm	42μm	45μm	30	32	4	19
4707-300	300x200mm	47μm	50μm	32	32	4	19
4707-400	400x250mm	56μm	60μm	38	38	5	22
4707-500	500x300mm	65μm	70μm	45	50	6	25
4707-600	600x350mm	75μm	80μm	50	50	6	30
4707-750	750x400mm	90μm	95μm	55	55	6	50
4707-900	900x500mm	103μm	110μm	65	75	9	50
4707-1000	1000x550mm	113μm	120μm	65	75	9	50



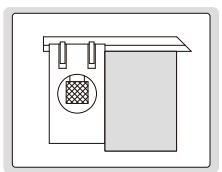
ADJUSTABLE SQUARE

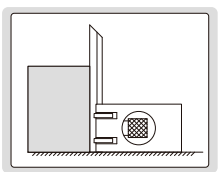
4701-1

Unit: mm



- The straight edge can move and can be locked by the clamping screw
- Made of hardened stainless steel

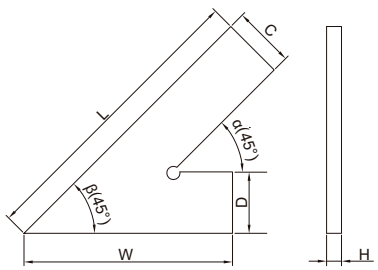




Code	Squareness (a, b, c, d)
4701-1	7μm

45° SQUARE

4745-1100



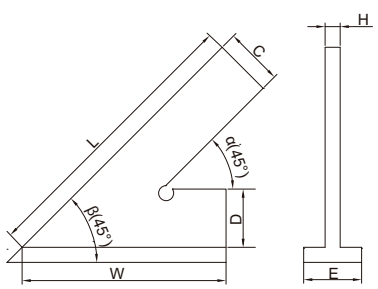
(mm)

Code	Size (LxW)	Accuracy		C	D	H
		Inside (α)	Outside (β)			
4745-1100	100x70mm	27μm	30μm	20	20	5
4745-1120	120x80mm	29μm	32μm	20	20	5
4745-1150	150x100mm	32μm	35μm	20	20	5
4745-1200	200x130mm	36μm	40μm	25	25	5

- Made of hardened stainless steel

45° SQUARE WITH WIDE BASE

4747-100



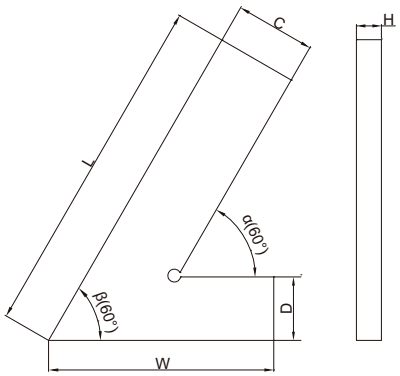
(mm)

Code	Size (LxW)	Accuracy		C	D	H	E
		Inside (α)	Outside (β)				
4747-100	100x70mm	27μm	31μm	20	20	5	20
4747-120	120x80mm	29μm	33μm	20	20	5	20
4747-150	150x100mm	32μm	36μm	20	20	5	20
4747-200	200x130mm	36μm	41μm	25	25	5	25

- Made of hardened stainless steel

60° SQUARE

4760-1100



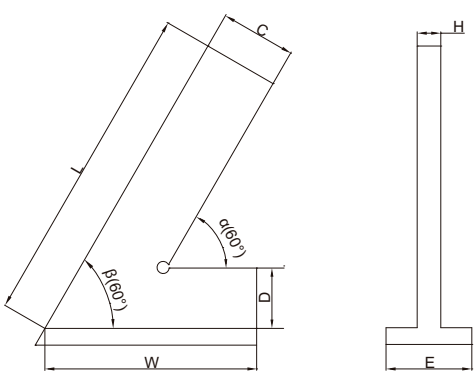
(mm)

Code	Size (LxW)	Accuracy		C	D	H
		Inside (α)	Outside (β)			
4760-1100	100x70mm	28μm	30μm	20	20	5
4760-1120	120x80mm	30μm	32μm	20	20	5
4760-1150	150x100mm	32μm	35μm	20	20	5
4760-1200	200x130mm	37μm	40μm	25	25	5

- Made of hardened stainless steel

60° SQUARE WITH WIDE BASE

4762-100



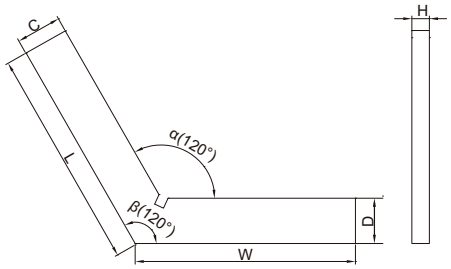
(mm)

Code	Size (LxW)	Accuracy		C	D	H	E
		Inside (α)	Outside (β)				
4762-100	100x70mm	28μm	31μm	20	20	5	20
4762-120	120x80mm	30μm	33μm	20	20	5	20
4762-150	150x100mm	33μm	36μm	20	20	5	20
4762-200	200x130mm	37μm	41μm	25	25	5	25

- Made of hardened stainless steel

120° SQUARE

4706-1100



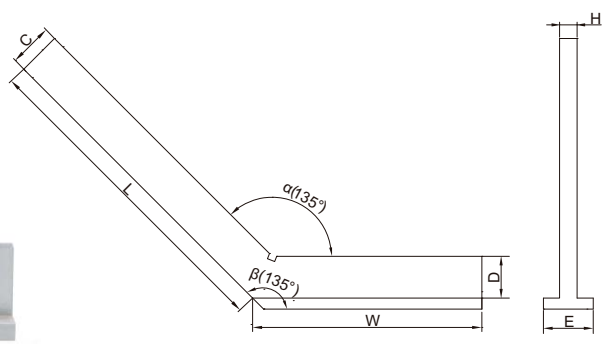
(mm)

Code	Size (LxW)	Accuracy		C	D	H
		Inside (α)	Outside (β)			
4706-150	50x50mm	24μm	25μm	15	15	5
4706-175	75x75mm	26μm	28μm	20	20	5
4706-1100	100x100mm	29μm	30μm	20	20	5
4706-1150	150x150mm	34μm	35μm	25	25	5
4706-1200	200x200mm	38μm	40μm	30	30	7

- Made of hardened stainless steel

135° SQUARE WITH WIDE BASE

4754-3120



(mm)

Code	Size (LxW)	Accuracy		C	D	H	E
		Inside (α)	Outside (β)				
4754-3100	100x70mm	29μm	31μm	20	20	5	20
4754-3120	120x80mm	31μm	33μm	20	20	5	20
4754-3150	150x100mm	34μm	36μm	20	20	5	20
4754-3200	200x130mm	39μm	41μm	30	30	7	30
4754-3250	250x165mm	44μm	46μm	30	30	7	30
4754-3300	300x175mm	49μm	51μm	35	35	7	35

- Made of hardened stainless steel

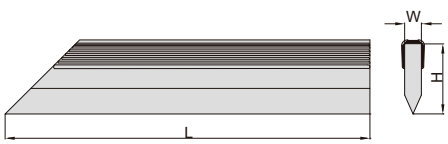
STRAIGHT EDGE

- DIN874
- Beveled edge
- Made of hardened stainless steel
- Satin chrome plating

(mm)

Code	Size (L)	Straightness	W	H
4700-50	50mm	2.2μm	5	20
4700-75	75mm	2.3μm	5	25
4700-100	100mm	2.4μm	5	25
4700-125	125mm	2.5μm	5	25
4700-150	150mm	2.6μm	6	30
4700-200	200mm	2.8μm	6	30
4700-250	250mm	3.0μm	8	40
4700-300	300mm	3.2μm	8	40
4700-400	400mm	3.6μm	10	50
4700-500	500mm	4.0μm	10	50

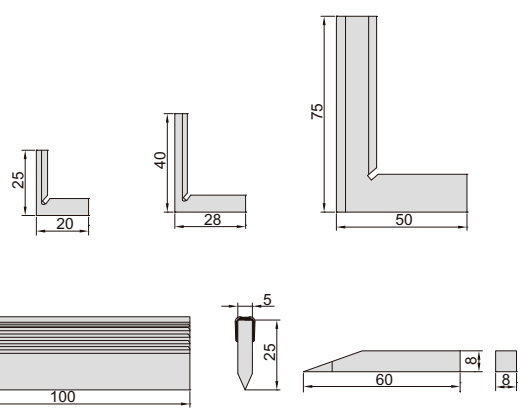
4700-100



SQUARE SET

4702-1

Unit: mm

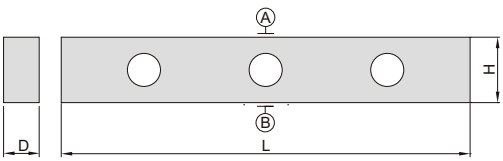


- Includes:
  - -90° tool maker square 25x20mm DIN875 grade 00 (code **4794-025**)
  - -90° tool maker square 40x28mm DIN875 grade 00 (code **4794-040**)
  - -90° beveled edge square 75x50mm DIN875 grade 00 (code **4790-075**)
  - -straight edge 100mm DIN874 (code **4700-100**)
  - -scriber
- Made of hardened stainless steel

Code
4702-1

GRANITE STRAIGHT EDGE

4147-500A

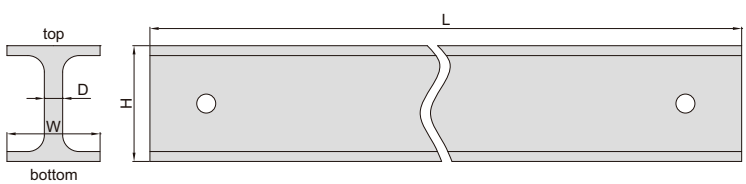


Code	Length (L)	Flatness of A and B	Parallelism between A and B	D	H
4147-500A	500mm	2.1μm	3.2μm	50mm	80mm
4147-1000A	1000mm	3μm	4.5μm	60mm	120mm

MAGNALIUM STRAIGHT EDGE

4180-500

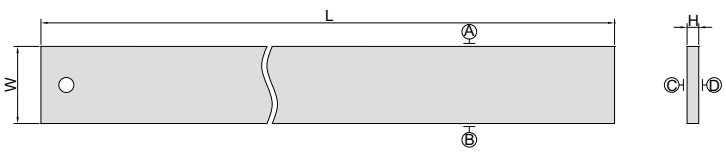
- Made of magnalium, light weight, non-deform, no rusty

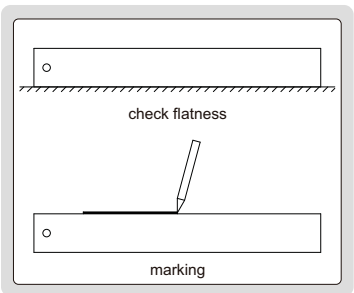


Code	Length (L)	Flatness of top and bottom	Parallelism between top and bottom	H	W	D
4180-500	500mm	3μm	4μm	60mm	30mm	5mm
4180-1000	1000mm	5μm	8μm	60mm	30mm	5mm
4180-1500	1500mm	15μm	22μm	100mm	40mm	5mm
4180-2000	2000mm	18μm	27μm	100mm	40mm	8mm

PRECISION STRAIGHT EDGE

7117-300





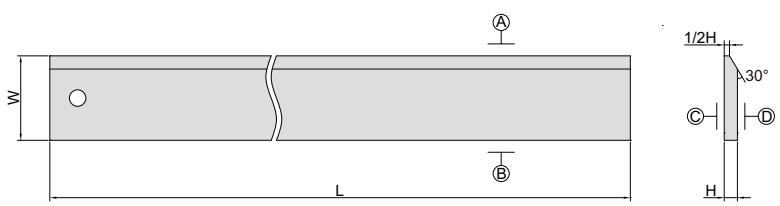
- Check flatness, straightness and for marking
- Made of tool steel
- Hardness HRC58

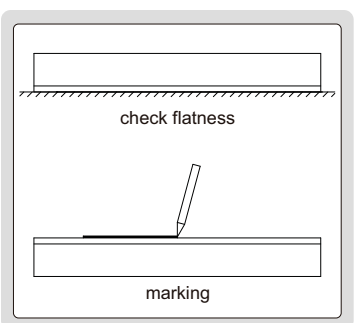
(mm)

Code	Range(L)	Straightness and parallelism of A and B	Straightness and parallelism of C and D	W	H
7117-300	305	0.005	0.05	41	6.3
7117-600	610	0.006	0.06	51	7.9
7117-900	914	0.007	0.06	64	9.5

PRECISION STRAIGHT EDGE WITH BEVELED EDGE

7118-300



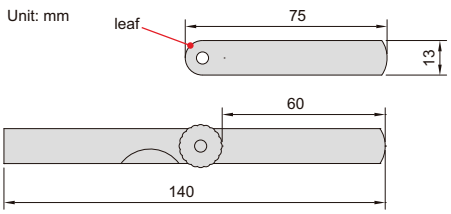


- Check flatness, straightness and for marking
- Made of tool steel
- Hardness HRC58

(mm)

Code	Range (L)	Straightness and parallelism of A and B	Straightness and parallelism of C and D	W	H
7118-300	305	0.005	0.05	41	6.5
7118-600	610	0.006	0.06	51	8
7118-900	914	0.007	0.06	64	10

FEELER GAGE

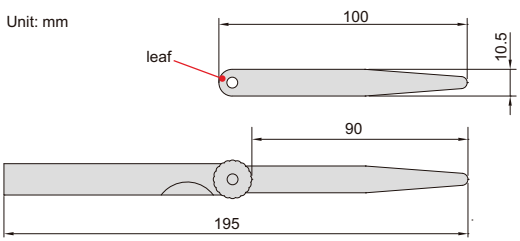


4601-25

- Made of hardened alloy steel
- Meet DIN2275
- Accuracy: ±(3+T/80) μm, 'T' is the thickness of leaves in μm

Code	Range	Thickness of leaves included (mm)	Quantity of leaves
4601-25	0.04 - 1.00mm	0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	25

FEELER GAGE



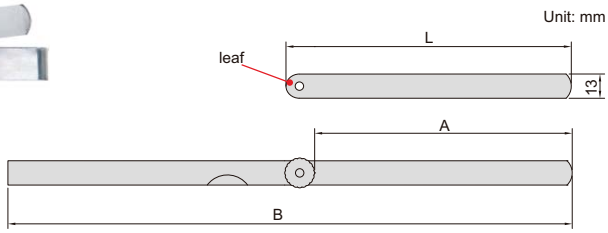
4602-20

- Made of hardened alloy steel
- Meet DIN2275
- Accuracy: ±(3+T/80) μm, 'T' is the thickness of leaves in μm

Code	Range	Thickness of leaves included (mm)	Quantity of leaves
4602-13A	0.03 - 0.50mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.30, 0.40, 0.50	13
4602-13	0.05 - 1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00	13
4602-17	0.02 - 1.00mm	0.02, 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.75, 1.00	17
4602-20	0.05 - 1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	20
4602-28	0.05 - 1.00mm	0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.11, 0.12, 0.13, 0.14, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	28
4602-32	0.03 - 1.00mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.13, 0.15, 0.18, 0.20, 0.23, 0.25, 0.28, 0.30, 0.33, 0.35, 0.38, 0.40, 0.45, 0.50, 0.55, 0.60, 0.63, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1.00	32

LONG FEELER GAGE

4605-20



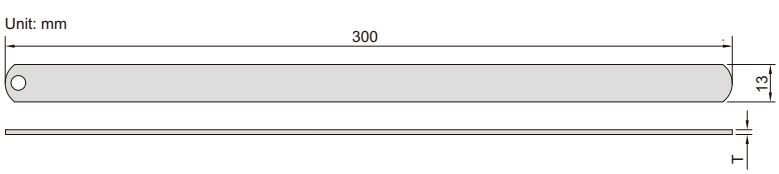
- Made of hardened alloy steel
- Meet DIN2275
- Accuracy: ±(3+T/80) μm, 'T' is the thickness of leaves in μm

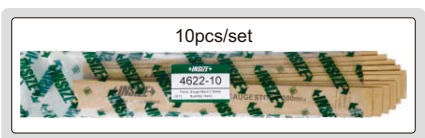
(mm)

Code	Range	Thickness of leaves included (mm)	Quantity of leaves	L	A	B
4605-13	0.05 - 1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00	13	150	135	295
4605-131	0.05 - 1.00mm		13	200	185	395
4605-132	0.05 - 1.00mm		13	300	285	590
4605-20	0.05 - 1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	20	150	135	295
4605-201	0.05 - 1.00mm		20	200	185	395
4605-202	0.05 - 1.00mm		20	300	285	590

FEELER GAGE STOCK

4622-10





- Used as shims to accurately set spacing
- Made of hardened alloy steel
- Length 300mm
- Width 13mm
- 10pcs/set

Code	Thickness (T)	Accuracy
4622-02	0.02mm	±3μm
4622-03	0.03mm	±3μm
4622-04	0.04mm	±3μm
4622-05	0.05mm	±3μm
4622-06	0.06mm	±3μm
4622-07	0.07mm	±4μm
4622-08	0.08mm	±4μm
4622-09	0.09mm	±4μm
4622-10	0.10mm	±4μm
4622-12	0.12mm	±5μm

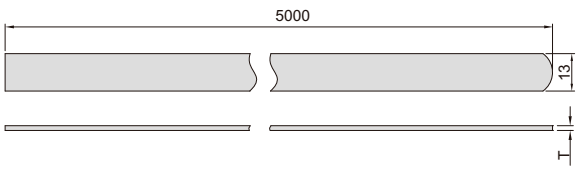
Code	Thickness (T)	Accuracy
4622-15	0.15mm	±5μm
4622-18	0.18mm	±6μm
4622-20	0.20mm	±6μm
4622-25	0.25mm	±6μm
4622-30	0.30mm	±7μm
4622-35	0.35mm	±7μm
4622-40	0.40mm	±8μm
4622-45	0.45mm	±8μm
4622-50	0.50mm	±9μm
4622-55	0.55mm	±9μm

Code	Thickness (T)	Accuracy
4622-60	0.60mm	±9μm
4622-65	0.65mm	±9μm
4622-70	0.70mm	±12μm
4622-75	0.75mm	±12μm
4622-80	0.80mm	±13μm
4622-85	0.85mm	±13μm
4622-90	0.90mm	±14μm
4622-95	0.95mm	±14μm
4622-100	1.00mm	±16μm

FEELER GAGE TAPE

4621-30

Unit: mm



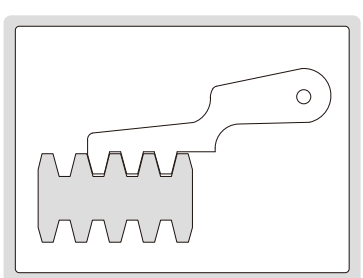
- Used as shims to accurately set spacing
- Made of hardened alloy steel
- Length 5m
- Width 13mm

Code	Thickness (T)	Accuracy
4621-02	0.02mm	±4μm
4621-03	0.03mm	±4μm
4621-04	0.04mm	±4μm
4621-05	0.05mm	±4μm
4621-06	0.06mm	±4μm
4621-07	0.07mm	±5μm
4621-08	0.08mm	±5μm
4621-09	0.09mm	±5μm
4621-10	0.10mm	±5μm
4621-12	0.12mm	±5μm
4621-15	0.15mm	±6μm
4621-18	0.18mm	±7μm
4621-20	0.20mm	±8μm
4621-25	0.25mm	±9μm
4621-30	0.30mm	±9μm

Code	Thickness (T)	Accuracy
4621-35	0.35mm	±11μm
4621-40	0.40mm	±12μm
4621-45	0.45mm	±12μm
4621-50	0.50mm	±14μm
4621-55	0.55mm	±14μm
4621-60	0.60mm	±14μm
4621-65	0.65mm	±14μm
4621-70	0.70mm	±17μm
4621-75	0.75mm	±17μm
4621-80	0.80mm	±19μm
4621-85	0.85mm	±19μm
4621-90	0.90mm	±22μm
4621-95	0.95mm	±22μm
4621-100	1.00mm	±24μm

PITCH GAGE

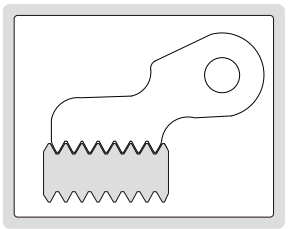
4824-12



- Check the pitch of screw thread
- Accuracy: ±0.07mm

Code	Range	Thread type	Pitch of leaves included	Quantity of leaves
4824-12	2-20mm	Tr 30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20mm	12
4824-16	1-12TPI	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 7, 8, 9, 10, 12TPI	16

PITCH GAGE



4820-122

- Check the pitch of screw thread
- Accuracy: ±0.07mm

Metric 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-122	0.4 - 7.0mm	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	22
4820-124	0.25 - 7.0mm	0.25, 0.3, 0.35, 0.4, 0.5, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	24
4820-1241	0.25 - 6.0mm	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6mm	24

Unified 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-230	4 - 42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	30

Whitworth 55° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-330	4 - 42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	30
4820-328	4 - 62TPI	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI	28

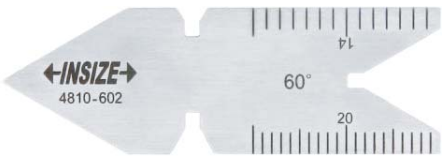
Metric 60° and Whitworth 55° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-452	0.25 - 6.0mm	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6mm	52
	4 - 62TPI	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI	
4820-450	0.4 - 7.0mm	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	50
	4 - 62TPI	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI	

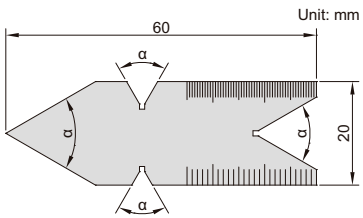
Metric 60° and Unified 60° screw

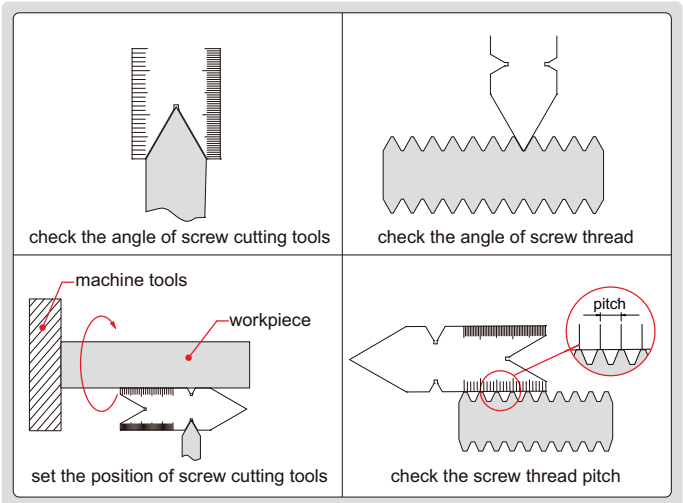
Code	Range	Pitch of leaves included	Quantity of leaves
4820-552	0.4 - 7.0mm	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	52
	4 - 42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	

CENTER GAGE



4810-602



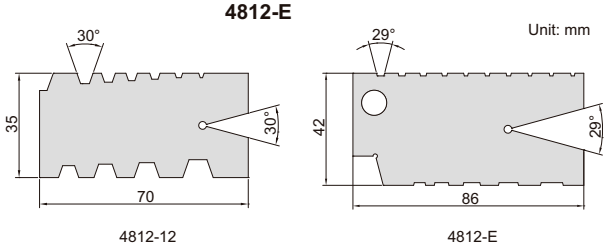


- To check and set screw cutting tools, and check the angle and pitch of screw thread
- Angle accuracy: ±30min.

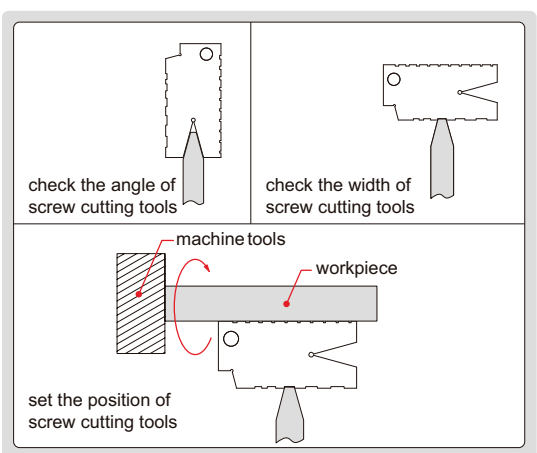
Code	Thread type	Angle (α)	Graduation
4810-601	METRIC 60°	60°	0.5mm and 1mm
4810-602	UNIFIED 60°	60°	14ths and 20ths on front side, 24ths and 32ths on back side
4810-55	WHITWORTH 55°	55°	14ths and 20ths on front side, 24ths and 32ths on back side

THREAD GAGE

4812-E



4812-12 4812-E

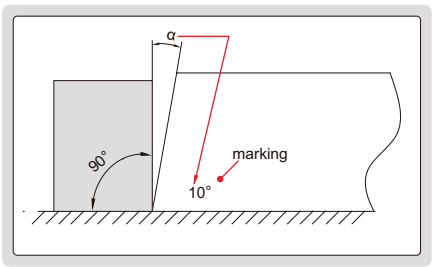


- To check and set screw cutting tools
- Angle accuracy: ±10min.

Code	Range	Thread type	Pitch
4812-12	2 - 12mm	Tr 30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12mm
4812-E	1 - 10TPI	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10TPI

ANGLE GAGE

4806-20



Code	Range	Angle of leaves included	Quantity of leaves	Accuracy
4806-20	1°-45°	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 12°, 14°, 16°, 18°, 20°, 25°, 30°, 35°, 40°, 45°	20	±30'

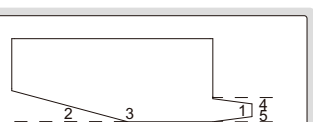
ANGLE GAGE SET

- Each blade checks primary, 1/2 primary and complementary angles

Code	Quantity of leaves	Accuracy
4807	18	±10'

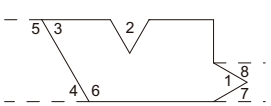
Primary angle	½ primary angle	Complementary angle	Type
5°	2°30'	175°	A
10°	5°	170°	A
15°	7°30'	165°	A
20°	10°	160°	B
25°	12°30'	155°	B
30°	15°	150°	B
35°	17°30'	145°	B
40°	20°	140°	B
45°	22°30'	135°	B
50°	25°	130°	B
55°	27°30'	125°	B
60°	30°	120°	B
65°	32°30'	115°	B
70°	35°	110°	B
75°	37°30'	105°	B
80°	40°	100°	B
85°	42°30'	95°	B
90°	45°	90°	B

4807



Angle 1, 2 are primary angle
Angle 3 is complementary angle
Angle 4, 5 are1/2 primary angle

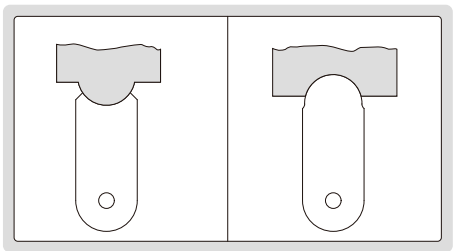
type A



Angle 1, 2, 3, 4 are primary angle
Angle 5, 6 are complementary angle
Angle 7, 8 are1/2 primary angle

type B

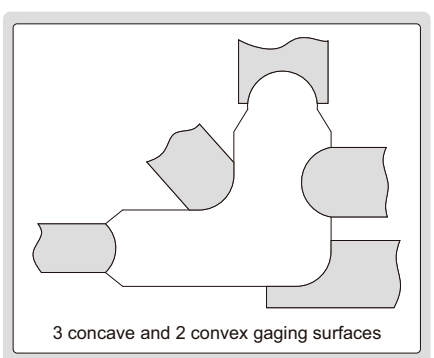
RADIUS GAGE



4801-17

Code	Range	Radius of leaves included (mm)	Quantity of leaves (internal + external)	Accuracy
4801-17	1 - 7mm	1, 1.25, 1.5, 1.75, 2, 2.25, 2.5, 2.75, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7	17+17	±0.03mm
4801-16	7.5 - 15mm	7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15	16+16	±0.035mm
4801-15	15.5 - 25mm	15.5, 16, 16.5, 17, 17.5, 18, 18.5, 19, 19.5, 20, 21, 22, 23, 24, 25	15+15	±0.042mm

RADIUS GAGE SET


3 concave and 2 convex gaging surfaces

use of handle

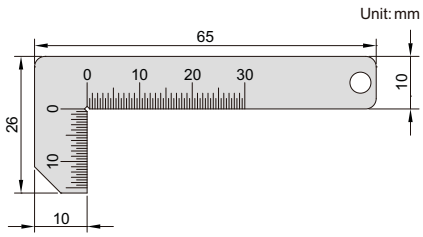
4804-26

- Each piece has 3 concave and 2 convex gauging surfaces
- Supplied with handle

Code	Range	Radius of leaves included (mm)	Quantity of leaves	Accuracy
4804-26	0.5 - 13mm	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13	26	±0.05mm

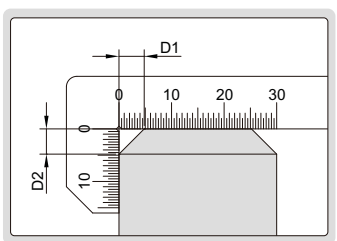
CHAMFER GAGE

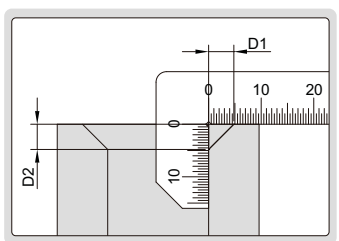
4844-1



- To measure internal and external chamfers
- Made of stainless steel

Code	Graduation	Accuracy
4844-1	0.5mm	±0.25mm

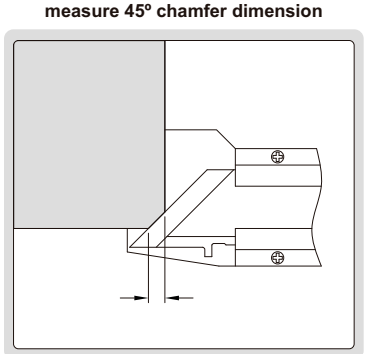




CHAMFER GAGE

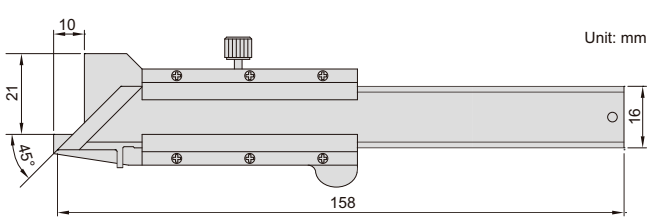
measure 45º chamfer dimension

1267-6

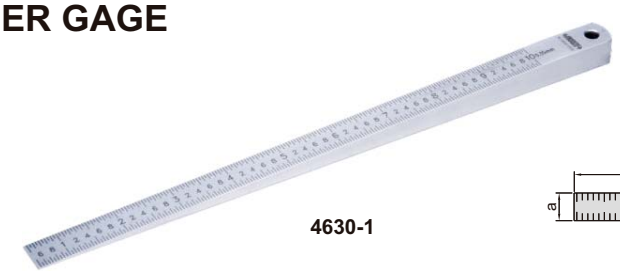


- Measure 45º chamfer dimension
- Graduation 0.02mm
- Made of stainless steel
- Satin chrome plated reading surface

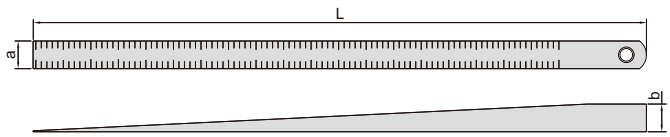
Code	Range	Accuracy
1267-6	0-6mm	±0.06mm



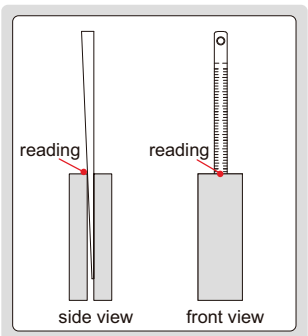
TAPER GAGE



4630-1



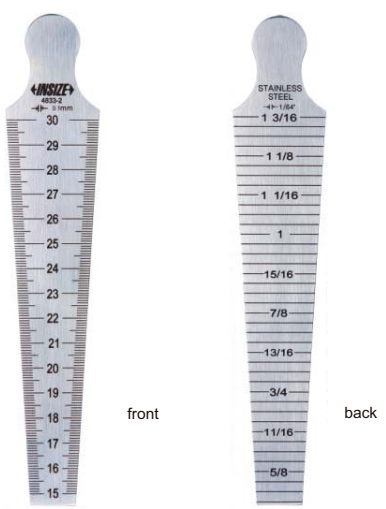
- For quick measurement of gap width
- Stain chrome plated reading surface
- Made of stainless steel



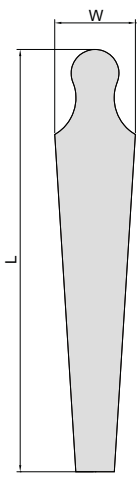
(mm)

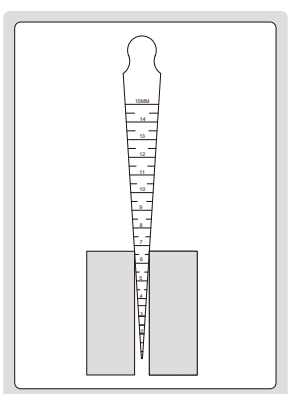
Code	Range	Graduation	Accuracy	L	a	b
4630-3	0.4 - 6mm	0.05mm	±0.04mm	164	12.5	6.5
4630-1	0.5 - 10mm	0.05mm	±0.07mm	220	10	10.5
4630-2	0.5 - 15mm	0.1mm	±0.08mm	184	12.5	16.5

TAPER GAGE



4833-2





- Measure opening, slot width, hole size, etc.
- Made of stainless steel

(mm)

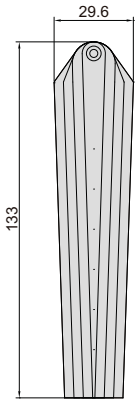
Code	Range	Graduation	Accuracy	L	W
4833-1	0.8 - 15mm (1/32″ – 5/8″)	0.1mm (1/64")	±0.1mm (0.004")	146	17
4833-2	15 - 30mm (5/8″ – 1-3/16″)	0.1mm (1/64")	±0.1mm (0.004")	159	30.4
4833-3	30 - 45mm (1-3/16″ – 1-3/4″)	0.1mm (1/64")	±0.1mm (0.004")	166	45.4
4833-4	45 - 60mm (1-13/16″ – 2-3/8″)	0.1mm (1/64")	±0.1mm (0.004")	170	60.5

TAPER GAGE SET

- Include 4pcs (1-8mm, 8-15mm, 15-22mm, 22-29mm)
- Measure opening, slot width, hole size, etc.
- Made of stainless steel

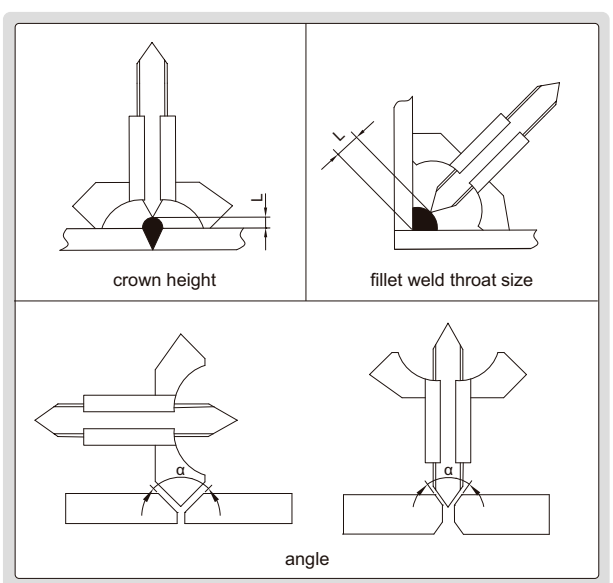
4837-1

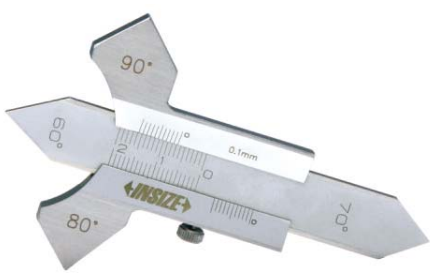
Unit: mm



Code	Range	Graduation	Accuracy
4837-1	1 - 29mm	0.05mm	±0.05mm

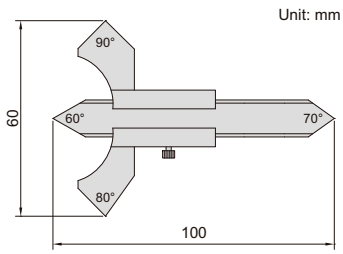
WELDING GAGE





4830

Unit: mm

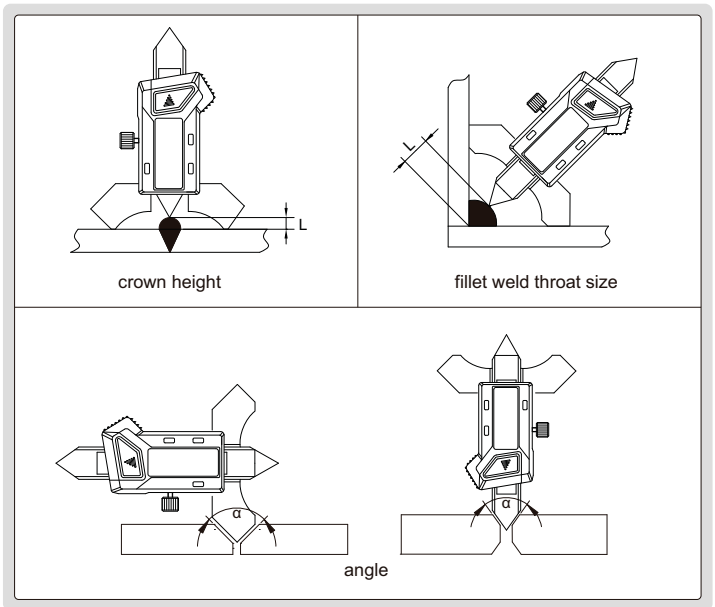


Code	Measurement	Range	Graduation	Accuracy
4830	crown height	0 - 8mm	0.1mm	±0.1mm
	fillet weld throat size	0 - 20mm	0.1mm	±0.3mm
	angle	60°, 70°, 80°, 90°	—	±1°

- Made of stainless steel
- Stain chrome plated reading surface

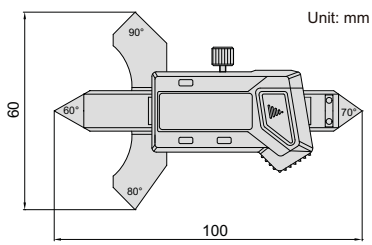
DIGITAL WELDING GAGE

ATTENTION:
NO DATA OUTPUT



4831-20A

Unit: mm

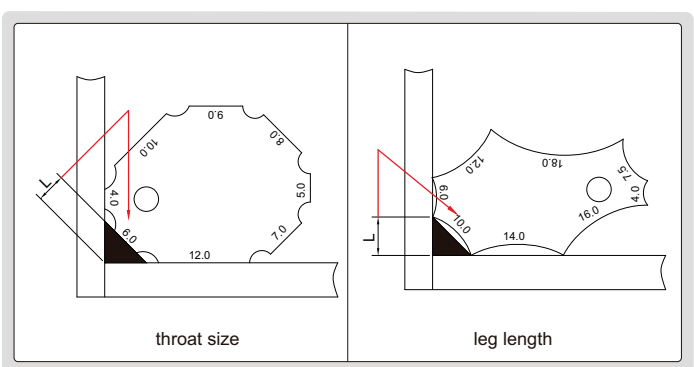


Code	Measurement	Range	Resolution	Accuracy
4831-20A	crown height	0 - 7mm	0.01mm/0.0005"	±0.03mm
	fillet weld throat size	0 - 20mm	0.01mm/0.0005"	±0.1mm
	angle	60°, 70°, 80°, 90°	—	±1°

- Buttons: zero, mm/inch, on/off
- Battery LR44
- Made of stainless steel

FILLET WELDING GAGE

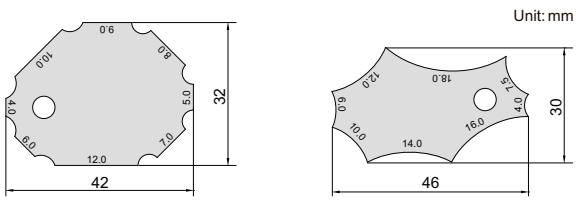
4832-1



- Made of stainless steel
- Sizes marked on both faces

Code	Throat size (mm)	Leg length (mm)	Accuracy
4832-1	4, 5, 6, 7, 8, 9, 10, 12	4, 6, 7.5, 10, 12, 14, 16, 18	±0.5mm

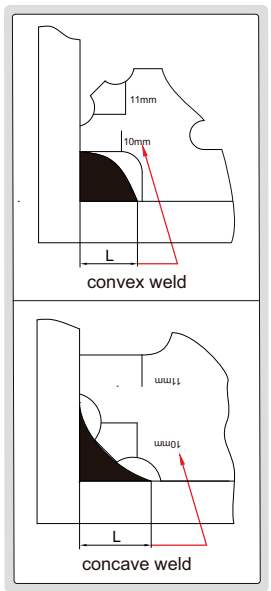
Unit: mm



FILLET WELDING GAGE

4836-1

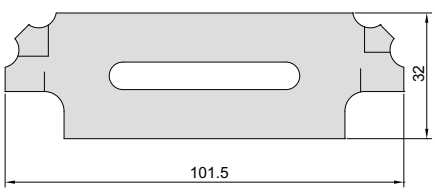
4836-2



- Measure concave and convex weld sizes
- 7 blades are included
- Made of stainless steel

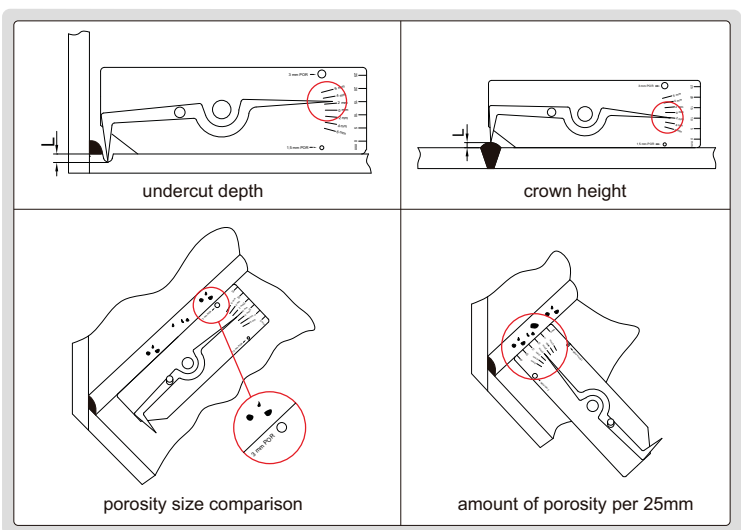
Code	Size	Accuracy
4836-1	3mm, 4mm, 5mm, 6mm, 8mm, 9mm, 10mm, 11mm, 12mm, 14mm, 16mm, 19mm, 22mm, 25mm	±0.5mm
4836-2	1/8" (3.2mm), 3/16" (4.8mm), 1/4" (6.4mm), 5/16" (7.9mm), 3/8" (9.5mm), 7/16" (11.1mm), 1/2" (12.7mm), 5/8" (15.9mm), 3/4" (19.1mm), 7/8" (22.2mm), 1" (25.4mm)	±0.02" (0.5mm)

Unit: mm



WELDING GAGE

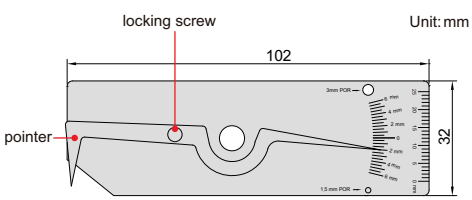
4834-1



- Pointer can be locked for later reference
- Made of stainless steel

Code	Measurement	Range	Graduation	Accuracy
4834-1	undercut depth	0 - 6mm	0.5mm	±0.5mm
	crown height	0 - 6mm	0.5mm	±0.5mm
	porosity size comparison	1.5mm, 3mm	—	±0.2mm
	amount of porosity per 25mm	25mm	1mm	—

Unit: mm

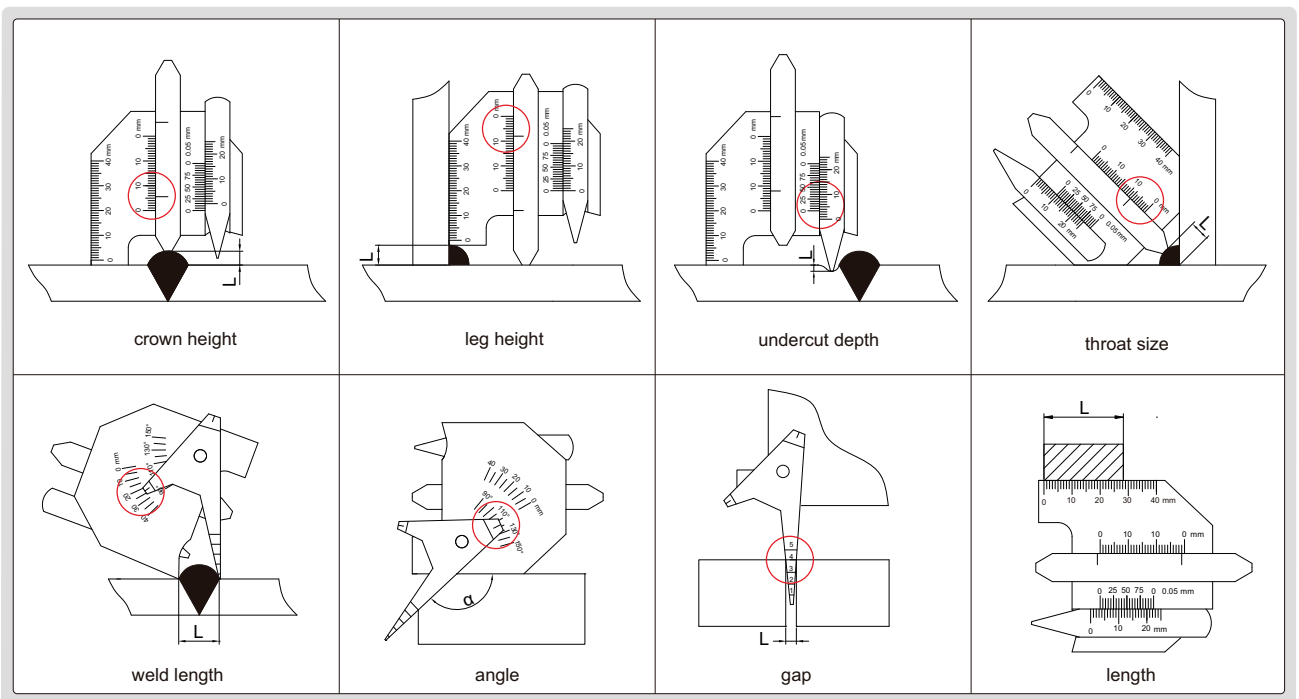


WELDING GAGE

front

back

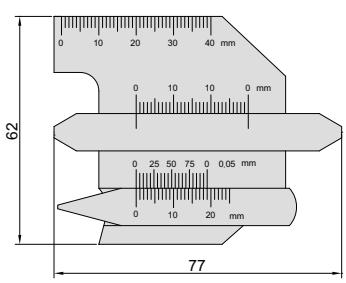
4838-1



- Made of stainless steel

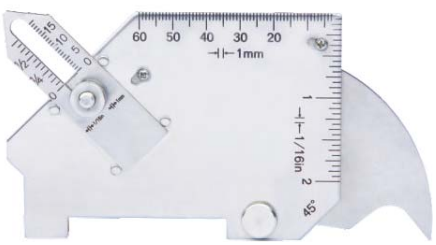
Code	Measurement	Range	Graduation	Accuracy
4838-1	crown height	0 - 10mm	1mm	±0.5mm
	leg height	0 - 14mm	1mm	±0.5mm
	undercut depth	0 - 5mm	0.05mm	±0.05mm
	throat size	0 - 13mm	1mm	±0.5mm
	weld length	0 - 40mm	1mm	±1mm
	angle	90° - 150°	5°	±1°
	gap	0.5 - 5mm	1mm	±0.5mm
	length	0 - 40mm	1mm	±0.5mm

Unit: mm



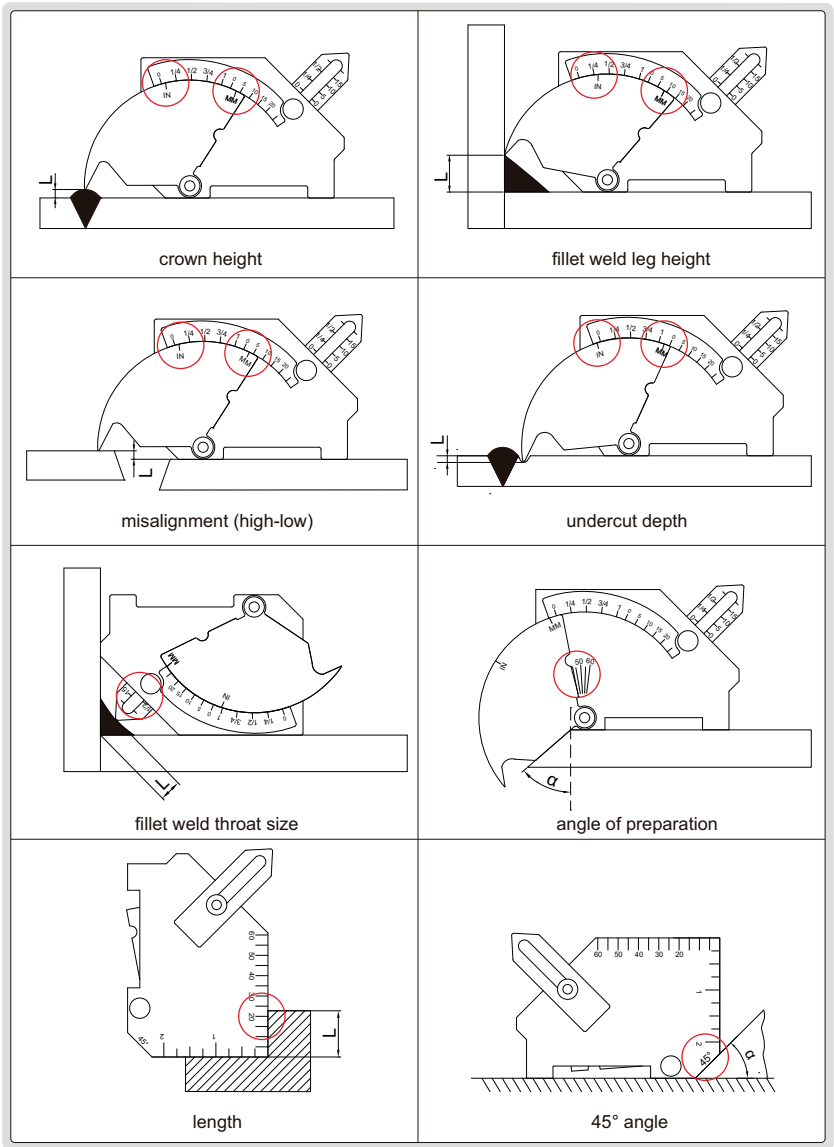
WELDING GAGE

front



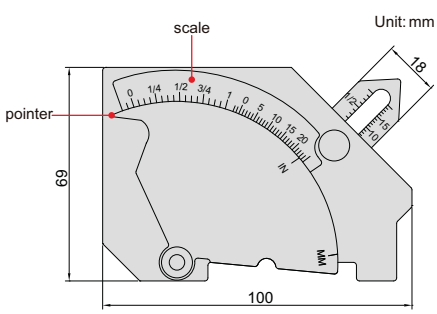
back

4835-1

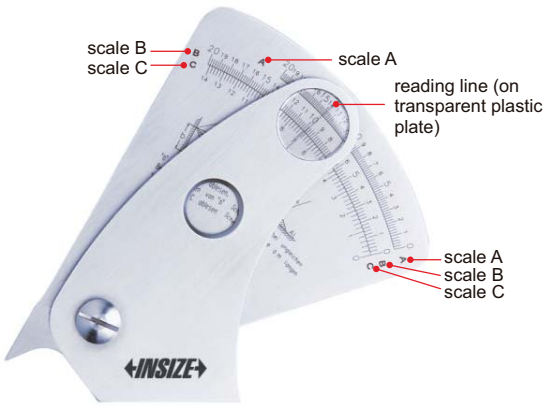


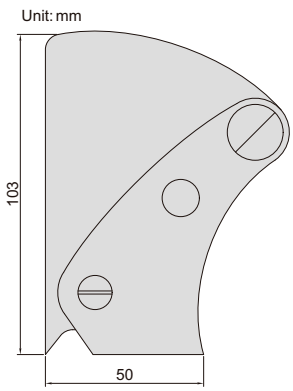
- Adjustable scale to compensate pointer wear
- Made of stainless steel

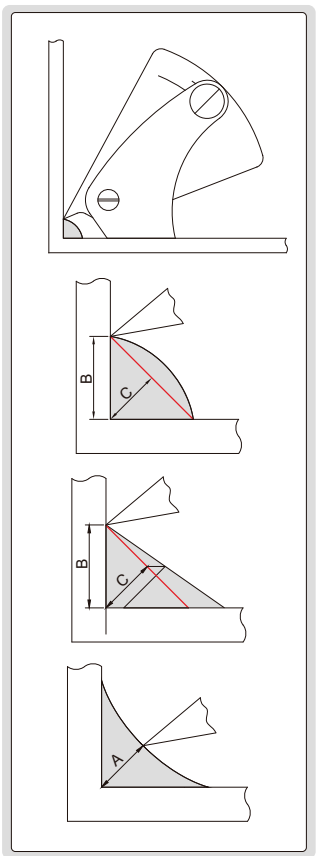
Code	Measurement	Range	Graduation	Accuracy
4835-1	crown height	0 - 25mm (0 - 1")	1mm (1/16")	±0.5mm
	fillet weld leg height	0 - 25mm (0 - 1")	1mm (1/16")	±0.5mm
	misalignment (high-low)	0 - 25mm (0 - 1")	1mm (1/16")	±0.5mm
	undercut depth	0 - 2mm (0 - 1/8")	1mm (1/16")	±0.5mm
	fillet weld throat size	0 - 20mm (0 - 3/4")	1mm (1/16")	±0.5mm
	angle of preparation	0 - 60°	5°	±1°
	length	0 - 60mm (0-2")	1mm (1/16")	±0.5mm
	45° angle	—	—	±1°



WELDING GAGE





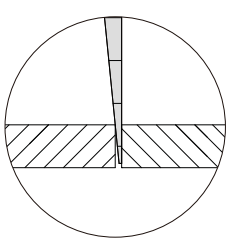


4840-1

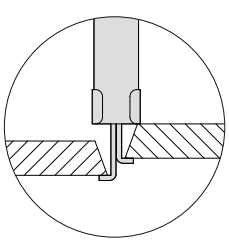
- Made of stainless steel

Code	Graduation	Accuracy
4840-1	0.2mm	±0.3mm

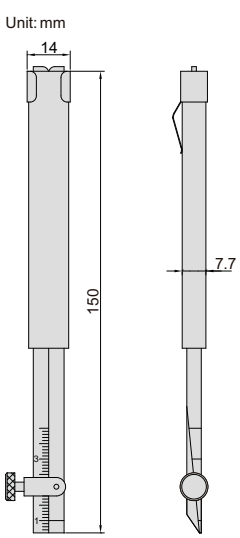
PIPE WELDING GAGE



fit-up gap



internal misalignment

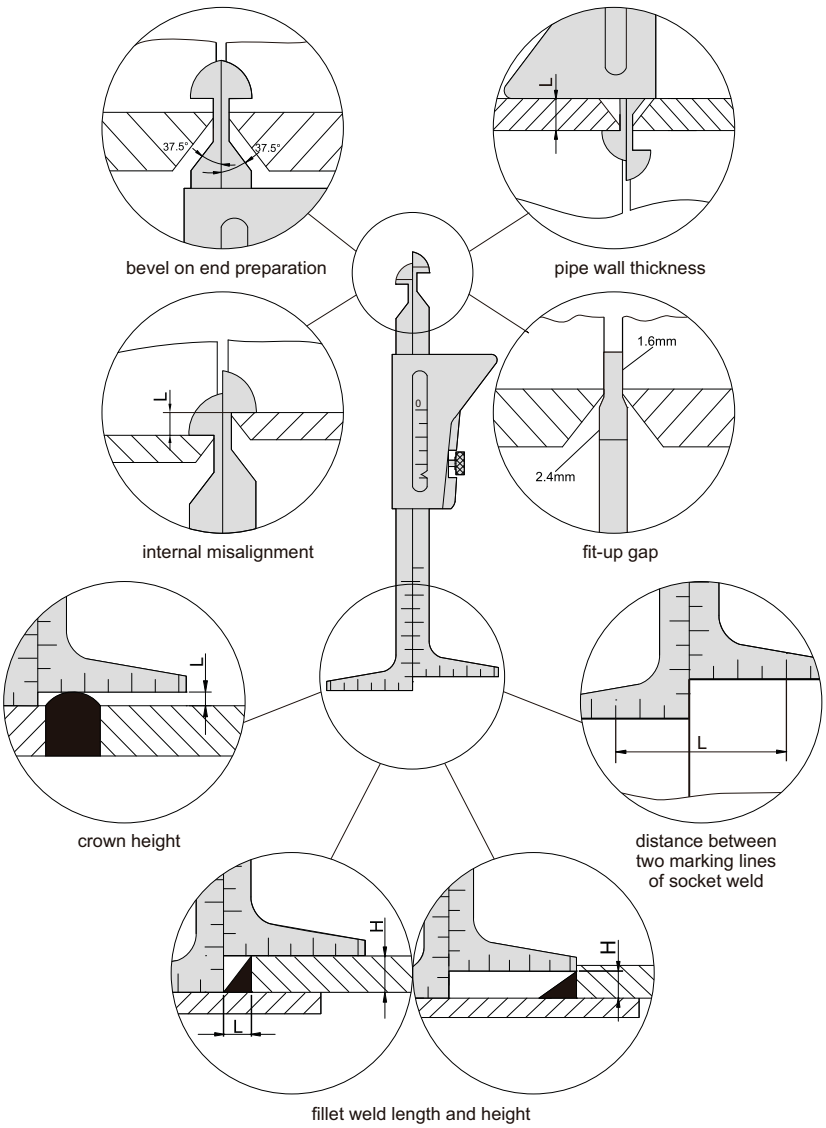


4841-1

- Made of stainless steel

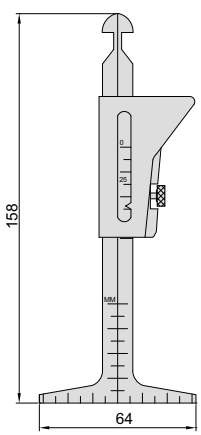
Code	Measurement	Range	Graduation	Accuracy
4841-1	internal misalignment	0 - 30mm	1mm	±0.5mm
	fit-up gap	0.7 - 4mm	0.1mm	±0.1mm

PIPE WELDING GAGE



4839-1

Unit: mm

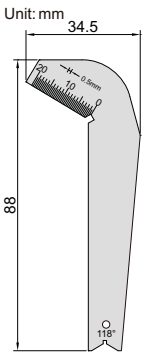


- Made of stainless steel

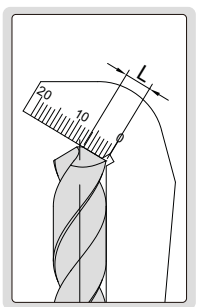
Code	Measurement	Range	Graduation	Accuracy
4839-1	bevel on end preparation	37.5°	—	±1°
	pipe wall thickness	0 - 45mm (0 – 1-3/4")	1mm (1/16")	±0.5mm
	internal misalignment	0 - 35mm (0 – 1-3/8")	1mm (1/32")	±0.5mm
	fit-up gap	1.6mm, 2.4mm	—	±0.1mm
	crown height	0 - 35mm (0 – 1-3/8")	1mm (1/32")	±0.5mm
	distance between two marking lines of socket weld	0 - 60mm (0 – 2-3/8")	1mm (1/16")	±0.5mm
	fillet weld length	0 - 30mm (0 – 1-1/4")	1mm (1/16")	±0.5mm
	fillet weld height	0 - 35mm (0 – 1-3/8")	1mm (1/32")	±0.5mm

DRILL POINT GAGE

4843-1



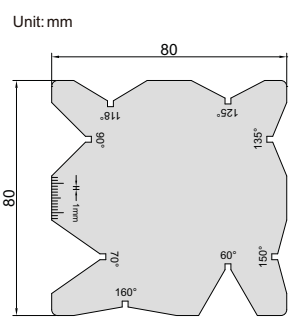
- For twist drills with 118° angle, to check if the center of tip is concentric with the drill body
- Made of stainless steel



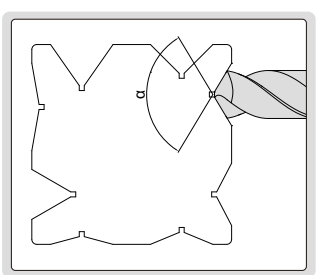
Code	Accuracy	
	Angle	Length
4843-1	±0.5°	±0.05mm

DRILL ANGLE GAGE

4842-1



- Check drills with angle 60°, 70°, 90°, 118°, 125°, 135°, 150° or 160°
- Made of stainless steel

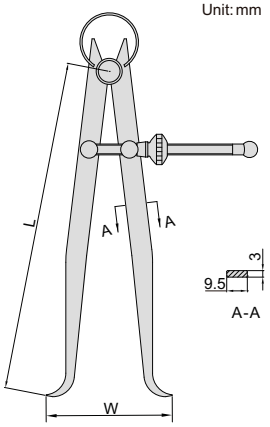


Code	Accuracy
4842-1	±0.5°

INSIDE SPRING CALIPER

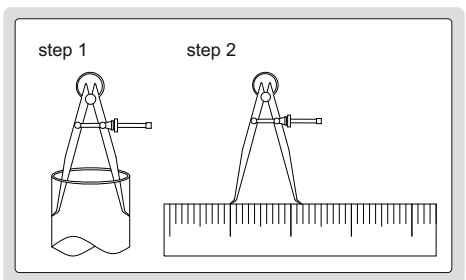
7261-150

Unit: mm



- Made of carbon steel

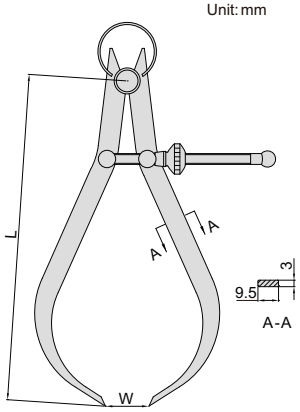
Code	Size (L)	Range (W)
7261-150	150mm	20 - 170mm
7261-200	200mm	22 - 220mm
7261-250	245mm	30 - 270mm
7261-300	300mm	30 - 320mm



OUTSIDE SPRING CALIPER

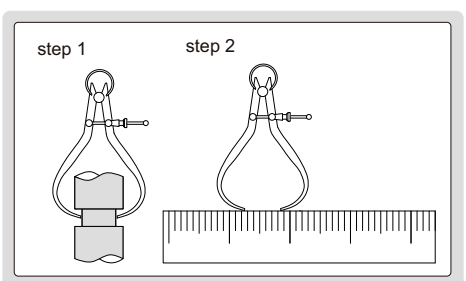
7262-150

Unit: mm



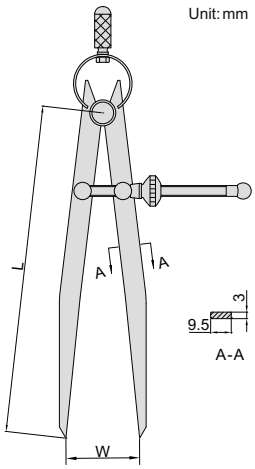
- Made of carbon steel

Code	Size (L)	Range (W)
7262-150	155mm	0 - 140mm
7262-200	210mm	0 - 210mm
7262-250	265mm	0 - 270mm
7262-300	310mm	0 - 320mm



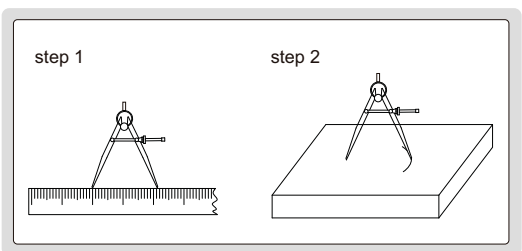
SPRING DIVIDER

7260-150



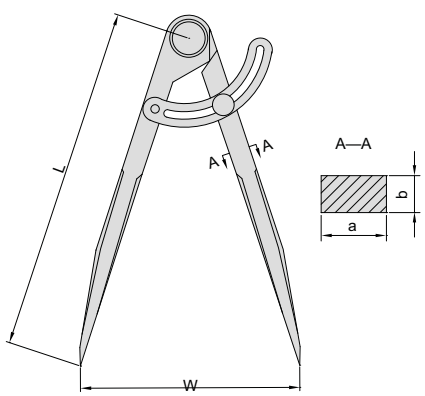
- Made of carbon steel
- Hardened points

Code	Size (L)	Range (W)
7260-150	150mm	0 - 150mm
7260-200	200mm	0 - 210mm
7260-250	245mm	0 - 260mm
7260-300	300mm	0 - 320mm



DIVIDER

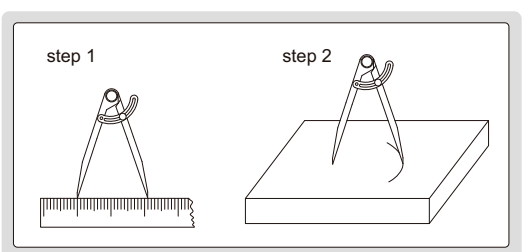
7247-150



- Made of carbon steel
- Hardened points

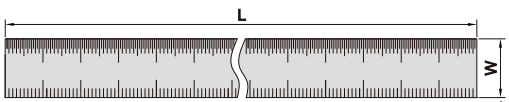
(mm)

Code	Size (L)	Range (W)	a	b
7247-150	150mm	0 - 140mm	8.5	7
7247-200	200mm	0 - 190mm	10	7
7247-300	300mm	0 - 290mm	12	7



FLEXIBLE RULE

7121-150



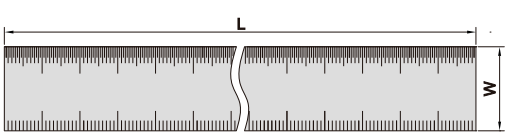
flexible use

- Flexible use
- Graduation on both sides
- Made of special alloy steel
- Satin chrome plated

Code	Range (L)	Graduation	Accuracy	W
7121-150	150mm	0.5mm/1mm	+0.10/-0.09mm	12.50mm
7121-300	300mm	0.5mm/1mm	+0.13/-0.09mm	12.50mm
7121-600	600mm	0.5mm/1mm	+0.18/-0.09mm	19.50mm

RIGID RULE

7122-300



- Rigid rule
- Graduation on both sides
- Made of special alloy steel
- Satin chrome plated

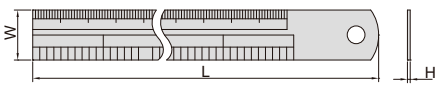
Code	Range (L)	Graduation	Accuracy	W
7122-150	150mm	0.5mm/1mm	+0.10/-0.09mm	18.50mm
7122-300	300mm	0.5mm/1mm	+0.13/-0.09mm	24.50mm
7122-600	600mm	0.5mm/1mm	+0.18/-0.09mm	29.50mm

STEEL RULE

ATTENTION:
BASIC MODEL

7110-300

- Graduation: 0.5mm, 1mm, 1/64", 1/32", 1/16"
- Semi-flexible rules
- Made of stainless steel
- Non-glare surface



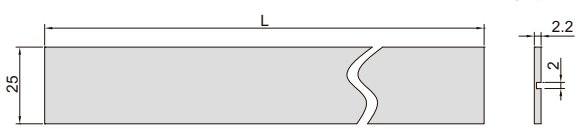
(mm)

Code	Range	Accuracy	L	W	H	Remark
7110-150	150mm/6"	±0.08mm	170	18	1.0	graduation on front and back
7110-200	200mm/8"	±0.08mm	220	18	1.0	graduation on front and back
7110-300	300mm/12"	±0.11mm	330	25	1.0	graduation on front and back
7110-500	500mm/20"	±0.14mm	530	30	1.2	graduation on front and back
7110-600	600mm/24"	±0.15mm	630	30	1.2	graduation on front and back
7110-1000	1000mm/40"	±0.20mm	1040	32	1.5	graduation on front and back
7110-1200	1200mm/48"	±0.24mm	1240	35	1.8	graduation on front
7110-1500	1500mm/60"	±0.35mm	1550	38	1.8	graduation on front
7110-2000	2000mm/80"	±0.45mm	2065	40	2.0	graduation on front

RIGID RULE

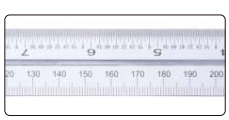
7113-300A

Unit: mm



- Rigid rules
- With groove on the back, suitable for combination square set (code **2278-180**)
- Satin chrome plated

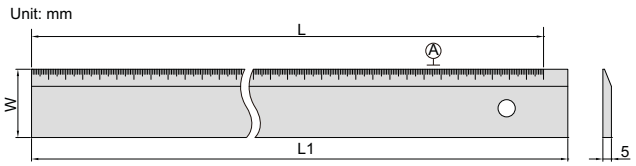
Code	Range	Graduation		Accuracy	L
		front	back		
7113-300A	300mm/12"	0.5mm and 1/32"	1mm and 1/64"	±0.15mm	300mm

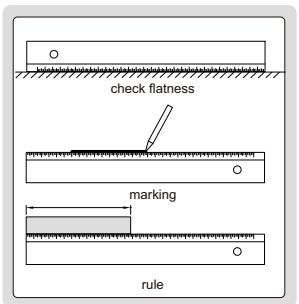


groove on the back

STRAIGHT EDGE

7111-300A



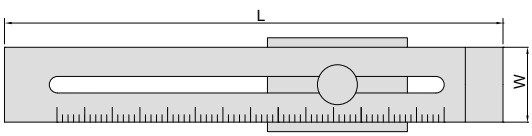


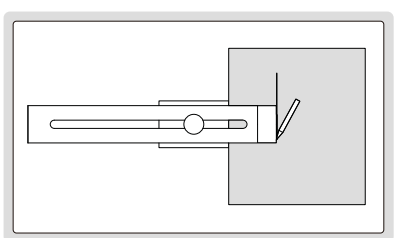
- Check flatness and straightness, as well as for marking
- Graduation on the beveled edge
- Made of hardened tool steel
- Chrome plated

Code	Range (L)	Straightness of A	L1	W
7111-300A	300mm	0.02mm	320mm	40mm
7111-500A	500mm	0.03mm	520mm	40mm
7111-1000A	1000mm	0.04mm	1020mm	50mm

MARKING GAGE

7120-200A





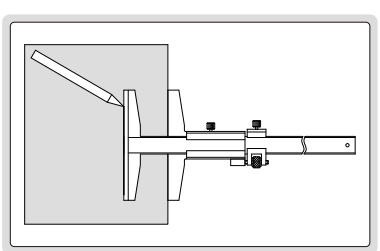
- Made of carbon steel
- Satin chrome plated

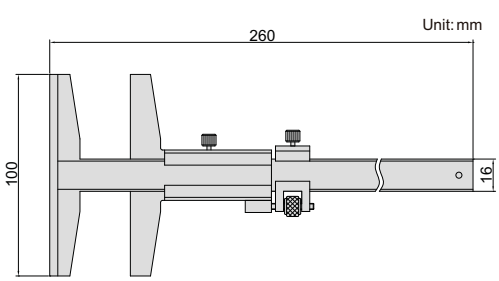
(mm)

Code	Range	Graduation	Accuracy	L	W
7120-200A	0 - 200mm	0.1mm	±0.1mm	250	40
7120-250A	0 - 250mm	0.1mm	±0.1mm	300	40
7120-300A	0 - 300mm	0.1mm	±0.1mm	350	40

T-SHAPE MARKING GAGE

1275-150A

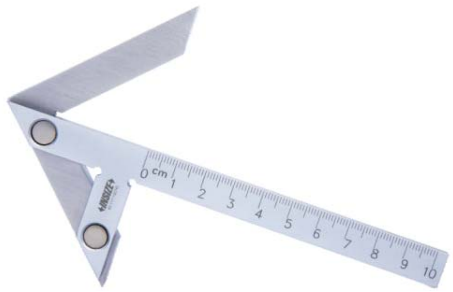




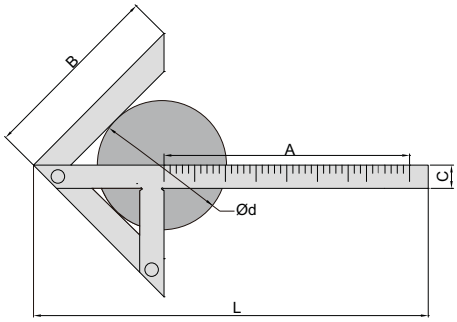
- Made of stainless steel
- Satin chrome plated reading surface

Code	Range	Graduation	Accuracy
1275-150A	0-150mm	0.05mm	±0.05mm

CENTER MARKING GAGE



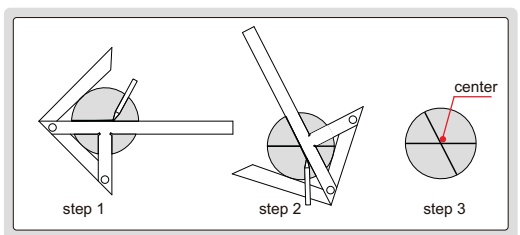
7205-100



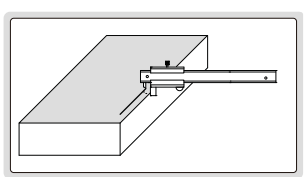
- Marking the center of round plates and shafts
- Made of stainless steel
- Satin chrome plated

(mm)

Code	Size (AxB)	Diameter of shafts (Ød)	Accuracy	C	L
7205-100	100X70mm	4 - 90mm	±0.15mm	12	153
7205-150	150x130mm	4 - 190mm	±0.15mm	15	245
7205-200	200x150mm	6 - 220mm	±0.15mm	15	310

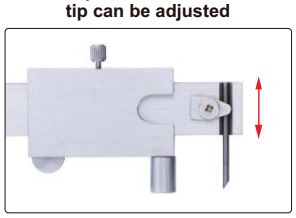


SCRIBING CALIPER



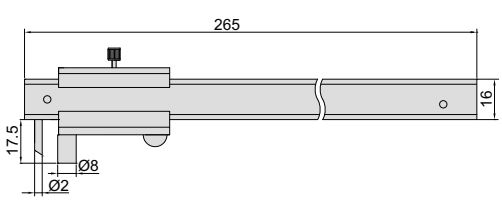
7202-200A

the position of scriber tip can be adjusted



- Made of stainless steel
- Satin chrome plated reading surface
- Carbide scriber tip

Unit: mm

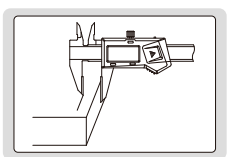


Code	Range	Graduation	Accuracy
7202-200A	0-200mm/0-8"	0.1mm, 1/128"	±0.1mm

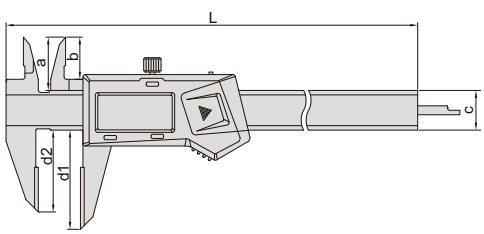
DATA OUTPUT

DIGITAL SCRIBING CALIPER

1166-150A



- The carbide-tipped jaws facilitate scribing on workpieces
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable
  (code **7306-20, 7302-SPC1A/SPC1B, 7305-SPC2**)

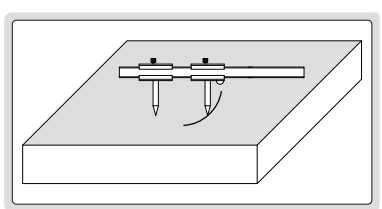


(mm)

Code	Range	Accuracy	L	a	b	c	d1	d2
1166-150A	0-150mm/0-6"	±0.03mm	236	21	16.5	16	40	33
1166-200A	0-200mm/0-8"	±0.03mm	286	24	19.5	16	50	43
1166-300A	0-300mm/0-12"	±0.04mm	400	25	20.5	17	60	53

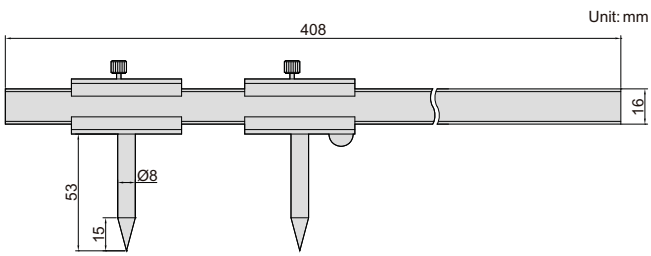
SCRIBING CALIPER

7203-300A



- Made of stainless steel
- Satin chrome plated reading surface
- Hardened scriber tips

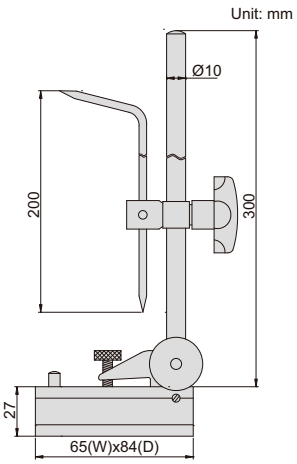
Unit: mm

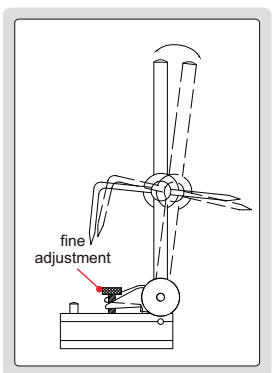


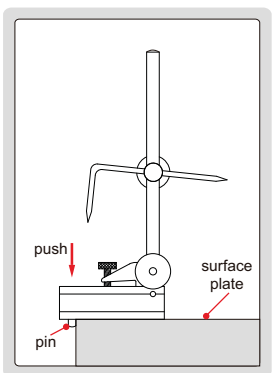
Code	Range	Graduation	Accuracy
7203-300A	51-300mm	0.1mm	±0.1mm

HEIGHT SCRIBER

6990-300A







Code
6990-300A

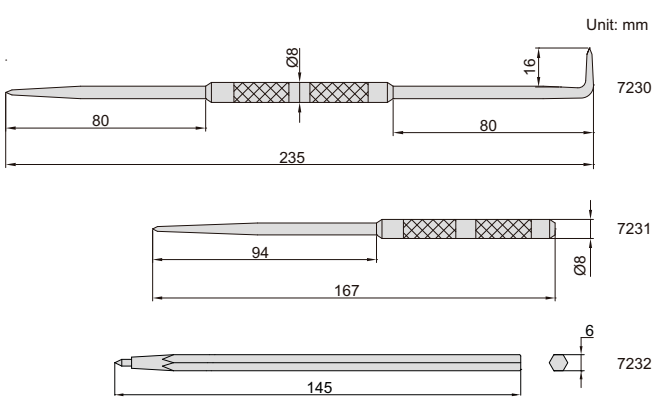
- Grooved bottom for cylinder
- Two pins to be set against the edge of surface plate

SCRIBER

7230

7231

7232



- Nickel plated

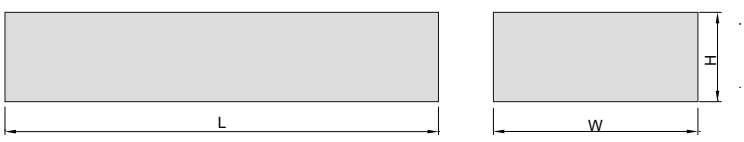
Code	Tip
7230	hardened tips
7231	hardened tip
7232	carbide tip

GRANITE SURFACE PLATE

CUSTOM-MADE
CAN SUPPLY PLATES
ACCORDING TO CUSTOMER DESIRE

MANUFACTURER INSPECTION CERTIFICATE

6900-132



- Made of granite, free from deterioration or dimensional change over time, minimal changes in dimension due to temperature changes
- Meet DIN876, grade 00 is for inspection room or lab, grade 0 is for workshop
- Optional accessory: stand for granite surface plate(code **6902**), jack for granite surface plate (code **6903**)

Grade 00

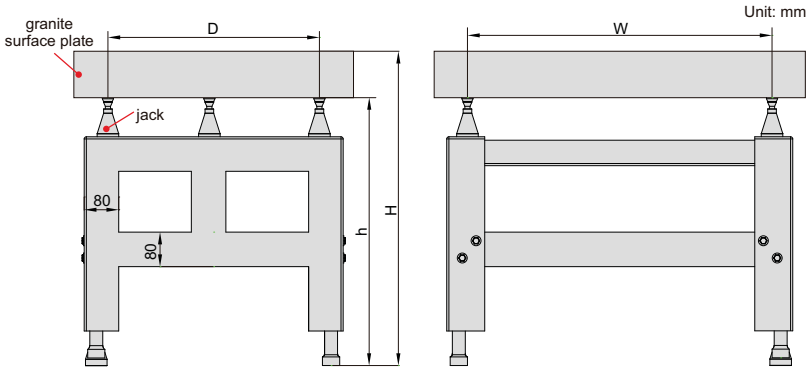
Code	Size (LxWxH)	Flatness	Weight (Kg)	Load (Kg)
6900-132*	300x200x60mm	2.7μm	11	30
6900-142*	400x250x60mm	2.9μm	18	50
6900-144*	400x400x60mm	3.1μm	29	60
6900-153*	500x315x70mm	3.2μm	33	60
6900-164*	630x400x80mm	3.5μm	60	65
6900-166*	630x630x100mm	3.8μm	119	75
6900-185*	800x500x100mm	3.9μm	120	100
6900-1106*	1000x630x140mm	4.4μm	265	200
6900-1101*	1000x1000x150mm	4.8μm	450	400
6900-1128*	1200x800x160mm	4.9μm	461	500
6900-1161*	1600x1000x180mm	5.8μm	864	600
6900-1201*	2000x1000x220mm	6.5μm	1320	650
6900-1202*	2000x1500x250mm	7.0μm	2250	750

Grade 0

Code	Size (LxWxH)	Flatness	Weight (Kg)	Load (Kg)
6900-032*	300x200x60mm	5.4μm	11	60
6900-042*	400x250x60mm	5.9μm	18	100
6900-044*	400x400x60mm	6.3μm	29	120
6900-053*	500x315x70mm	6.4μm	33	120
6900-064*	630x400x80mm	7.0μm	60	130
6900-066*	630x630x100mm	7.6μm	119	150
6900-085*	800x500x100mm	7.8μm	120	200
6900-0106*	1000x630x140mm	8.7μm	265	400
6900-0101*	1000x1000x150mm	9.7μm	450	800
6900-0128*	1200x800x160mm	9.8μm	461	1000
6900-0161*	1600x1000x180mm	11.5μm	864	1200
6900-0201*	2000x1000x220mm	12.9μm	1320	1300
6900-0202*	2000x1500x250mm	14.0μm	2250	1500

*Supplied with manufacturer inspection certificate

STAND FOR GRANITE SURFACE PLATE



6902-64A

- For medium size granite surface plates
- Adjusting range of jacks: 25mm
- One foot on the bottom is adjustable

Low stands **(mm)**

Code	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64A	630x400x80mm (code **6900-064** and **6900-164**)	352	224	775-800	695-720
6902-66A	630x630x100mm (code **6900-066** and **6900-166**)	352	352	775-800	675-700
6902-85A	800x500x100mm (code **6900-085** and **6900-185**)	448	280	775-800	675-700
6902-106A	1000x630x140mm (code **6900-0106** and **6900-1106**)	560	352	755-780	615-640
6902-101A	1000x1000x150mm (code **6900-0101** and **6900-1101**)	560	560	755-780	605-630
6902-128A	1200x800x160mm (code **6900-0128** and **6900-1128**)	672	448	755-780	595-620
6902-161A	1600x1000x180mm (code **6900-0161** and **6900-1161**)	896	560	755-780	575-600

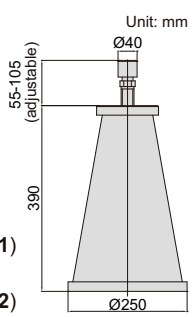
High stands **(mm)**

Code	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64H	630x400x80mm (code **6900-064** and **6900-164**)	352	224	1000-1025	920-945
6902-66H	630x630x100mm (code **6900-066** and **6900-166**)	352	352	1000-1025	900-925
6902-85H	800x500x100mm (code **6900-085** and **6900-185**)	448	280	1000-1025	900-925
6902-106H	1000x630x140mm (code **6900-0106** and **6900-1106**)	560	352	1000-1025	860-885
6902-101H	1000x1000x150mm (code **6900-0101** and **6900-1101**)	560	560	1000-1025	850-875
6902-128H	1200x800x160mm (code **6900-0128** and **6900-1128**)	672	448	1000-1025	840-865
6902-161H	1600x1000x180mm (code **6900-0161** and **6900-1161**)	896	560	1000-1025	820-845

JACK SET FOR GRANITE SURFACE PLATE

Code
6903-B

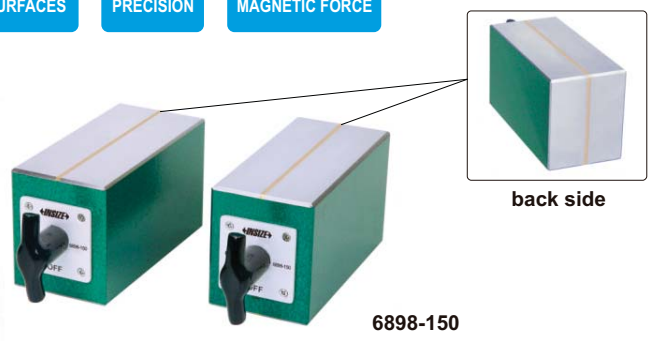
- 5 jacks per set
- Adjustable height
- For large granite surface plates:
  2000x1000x220mm
  (code **6900-0201** and **6900-1201**)
  2000x1500x250mm
  (code **6900-0202** and **6900-1202**)



6903-B

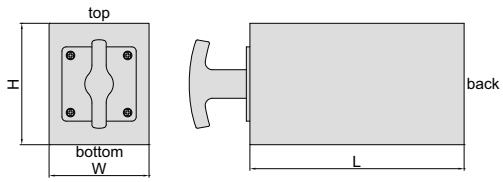
MAGNETIC RECTANGULAR BLOCKS

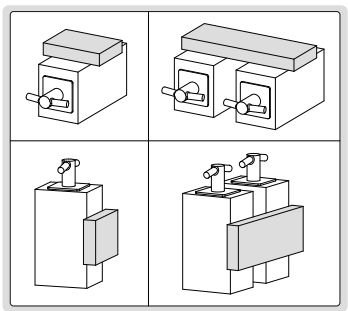
HARDENED SURFACES | HIGH PRECISION | STRONG MAGNETIC FORCE



6898-150

Unit: mm





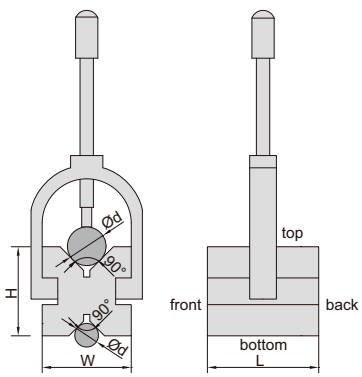
- For grinding, light milling, drilling and inspection of round and square jobs
- Hardened, high accuracy, strong magnetic force
- Working surfaces are hardened to HRC58-62
- Magnetic force on top, bottom and back sides
- Supplied in matched pair

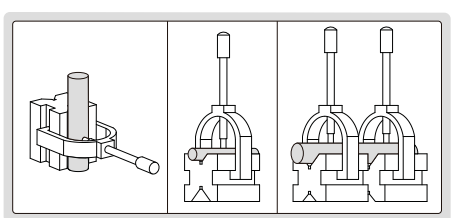
Code	Size (LxWxH)	Magnetic force	Parallelism of top to bottom side	Squareness of top and bottom to back side	Height difference of a matched pair
6898-100	100x70x70mm	100kgf	5μm	5μm	5μm
6898-150	150x70x85mm	125kgf	5μm	5μm	5μm

V-BLOCK SET

6896-10

6896-11





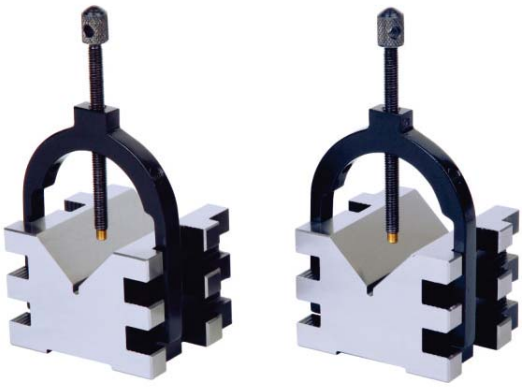
- Hold cylindrical workpieces for inspection and machining
- Two V-blocks per set
- Made of alloy steel
- Hardened to HRC60±2
- V groove on the top for large shafts
- V groove on the bottom for small shafts (except **6896-10**)

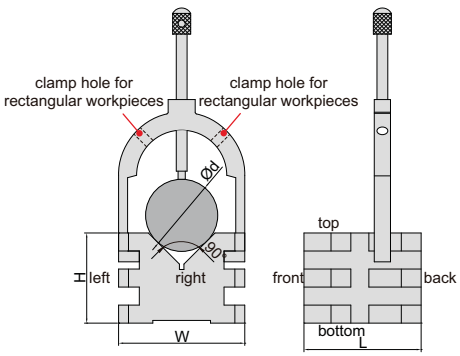
Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of both V grooves to top and bottom sides	Squareness of both V grooves to front and back sides	Height difference of a matched pair
6896-10	25x20x20mm	3-20mm	3μm	3μm	3μm
6896-11	50x40x40mm	5-30mm	5μm	5μm	5μm
6896-12	80x63x63mm	7-63mm	5μm	5μm	5μm
6896-13	100x80x80mm	7-80mm	5μm	5μm	5μm
6896-14	140x70x140mm	9-140mm	5μm	5μm	5μm

V-BLOCK SET

SIDE LIE-DOWN USE IS POSSIBLE

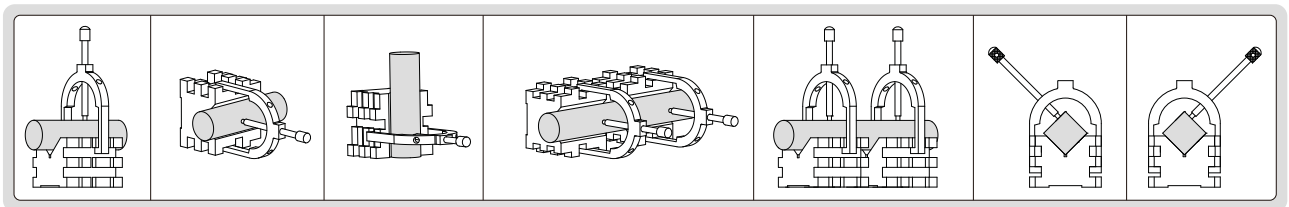
6802-1



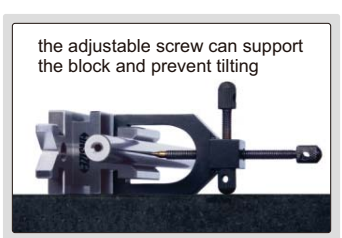


- Hold cylindrical or rectangular workpieces for inspection and machining
- Two V-blocks per set
- Made of alloy steel
- Hardened to HRC60±2
- Applicable for cylinder with diameter (Ød): 5 - 50mm
- Applicable for rectangular workpieces with thickness: ≤35mm

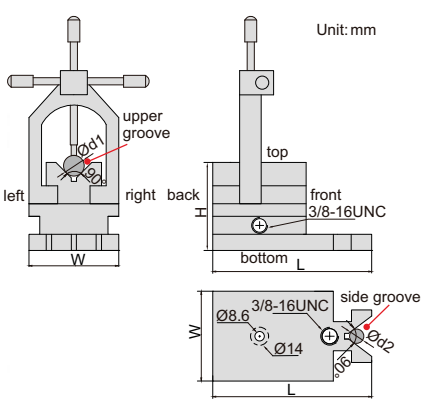
Code	Size (LxWxH)	Parallelism of V groove to top, bottom, left, right sides	Squareness of V groove to front and back sides	Height difference of a matched pair
6802-1	65x70x50mm	5μm	5μm	5μm



V-BLOCK



6804-1



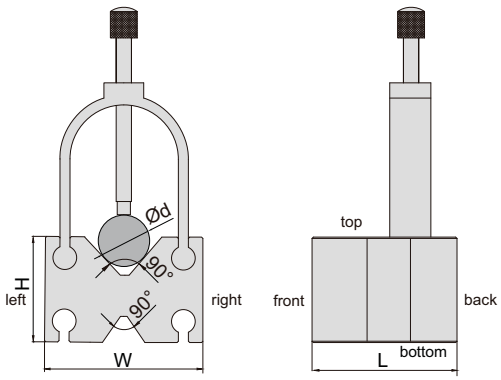
- Hold cylindrical workpieces for inspection and machining
- Hardened to HRC60±2

Code	Size (LxWxH)	Range of shafts (Ød1 and Ød2)	Parallelism of upper groove to bottom, left and right sides	Squareness of upper groove to back side	Parallelism of side groove to back side
6804-1	90x48x48mm	5 - 33mm	5μm	5μm	5μm

SIDE LIE-DOWN USE IS POSSIBLE

V-BLOCK SET

6803-1



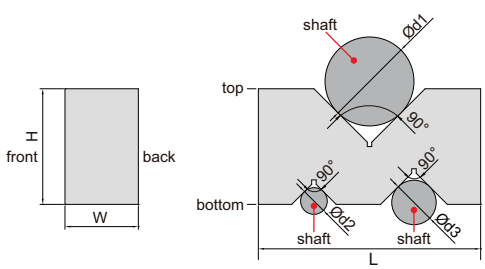
- Hold cylindrical workpieces for inspection and machining
- Two V-blocks per set
- Made of alloy steel
- Hardened to HRC60±2
- V groove on the top for large shafts
- V groove on the bottom for small shafts

side lie-down use is possible

Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of both V grooves to top, bottom, left, right sides	Squareness of both V grooves to front and back sides	Height difference of a matched pair
6803-1	25x20x20mm	4-35mm	5μm	5μm	5μm
6803-2	50x40x40mm	4-47mm	5μm	5μm	5μm

V-BLOCK SET

6887-3

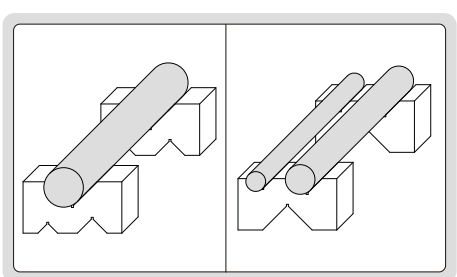


(mm)

Code	Size (LxWxH)	Range of shafts(Ød1)	Range of shafts(Ød2)	Range of shafts(Ød3)
6887-1	50x19x24	3-32	3-16	3-22
6887-2	75x24x35	3-50	3-20	3-32
6887-3	100x33x52	3-68	3-26	3-40
6887-4	125x44x69	3-87	3-34	3-50

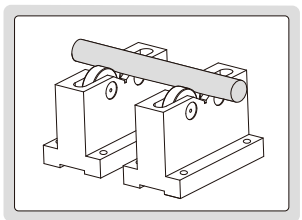
Code	Parallelism of three V grooves to top and bottom sides	Squareness of three V grooves to front and back sides	Height difference of a matched pair
6887-1	5μm	5μm	5μm
6887-2	5μm	5μm	5μm
6887-3	5μm	5μm	5μm
6887-4	5μm	5μm	5μm

- Two V-blocks per set
- Made of hardened tool steel

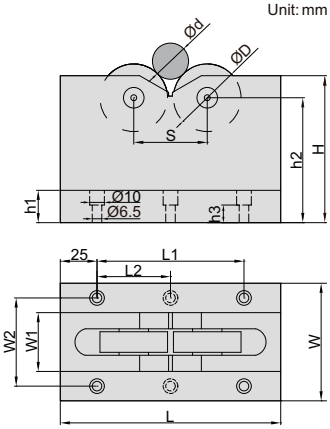


ROLLER BEARING V-BLOCK SET

6888-1



Unit: mm



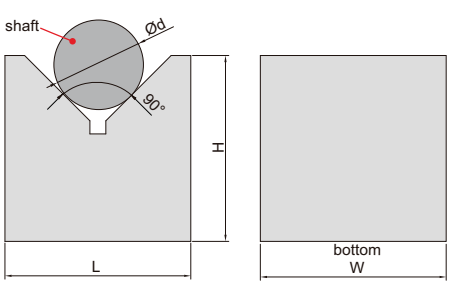
- Two V-blocks per set
- Workpieces don't get damaged due to bearings
- Suitable for heavy workpieces

(mm)

Code	W1	W2	h1	h2	h3	L1	L2	S
6888-1	22	44	20	85	12	100	–	60
6888-2	40	60	22	85	12	100	–	50
6888-3	60	80	30	124	20	180	90	120

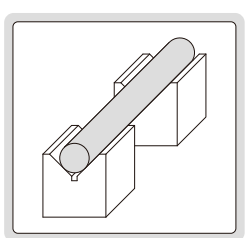
Code	Size (LxWxH)	Diameter of bearings (ØD)	Range of shafts (Ød)	Parallelism of bearings to bottom	Load capacity
6888-1	150x60x100mm	42mm	25 - 70mm	12µm	500kg
6888-2	150x80x100mm	47mm	5 - 55mm	12µm	1000kg
6888-3	230x100x150mm	72mm	70 - 200mm	12µm	1000kg

GRANITE V-BLOCK SET



6897-1

- Two V-blocks per set

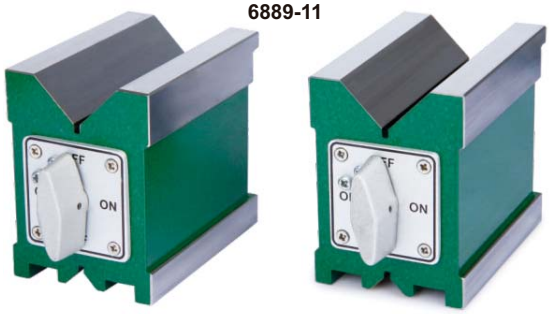


Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of V groove to bottom	Height difference of a matchet pair
6897-1	70x50x70mm	6 - 75mm	4µm	5µm
6897-2	100x50x70mm	6 - 99mm	4µm	5µm

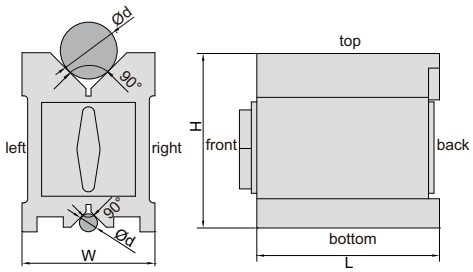
STRONG MAGNETIC FORCE | HARDENED SURFACES | HIGH PRECISION

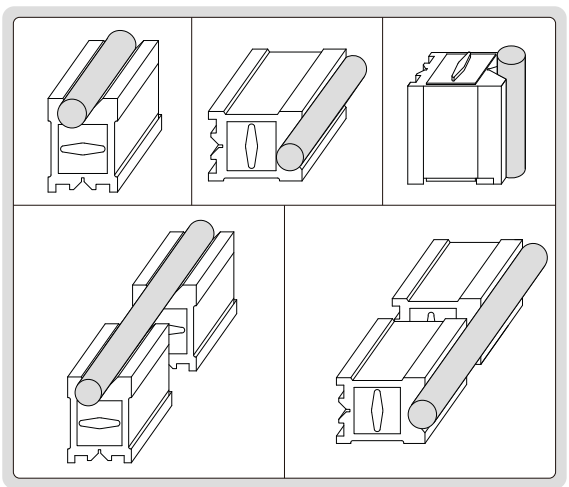
MAGNETIC V-BLOCK

6889-11



6889-1





- Hardened, high accuracy, strong magnetic force, for grinding, light milling, drilling and inspection of round and square jobs
- All working surfaces are hardened to HRC60±2
- Magnetic force on top, bottom and two V grooves
- V groove on the top for large shafts
- V groove on the bottom for small shafts
- Suitable for cast iron surface plates and granite surface plates

Individual

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to top, bottom, left, right sides	Squareness of V groove to back side
6889-11	75x56x75mm	5-40mm	75kgf	5μm	5μm
6889-22	100x70x95mm	5-65mm	100kgf	5μm	5μm
6889-33	150x75x100mm	5-70mm	125kgf	5μm	5μm
6889-44	200x124x150mm	10-140mm	175kgf	10μm	10μm

Matched pair

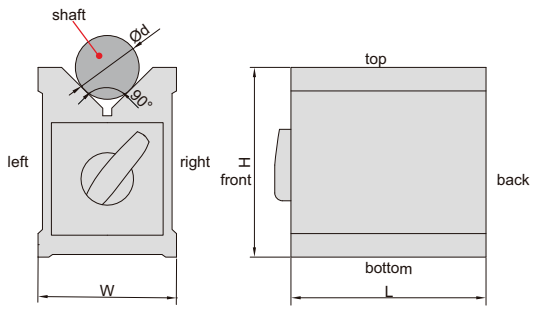
Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of both V grooves to top, bottom, left, right sides	Squareness of both V grooves to back side	Height difference of a matched pair
6889-1	75x56x75mm	5-40mm	75kgf	5μm	5μm	5μm
6889-2	100x70x95mm	5-65mm	100kgf	5μm	5μm	5μm
6889-3	150x75x100mm	5-70mm	125kgf	5μm	5μm	5μm
6889-4	200x124x150mm	10-140mm	175kgf	10μm	10μm	10μm

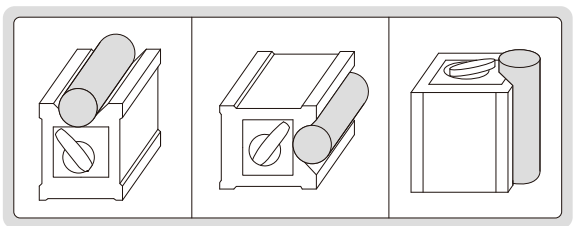
MAGNETIC V-BLOCK

ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACE

ATTENTION: NOT HARDENED

6890-702





- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- Not suitable for steel or iron surface

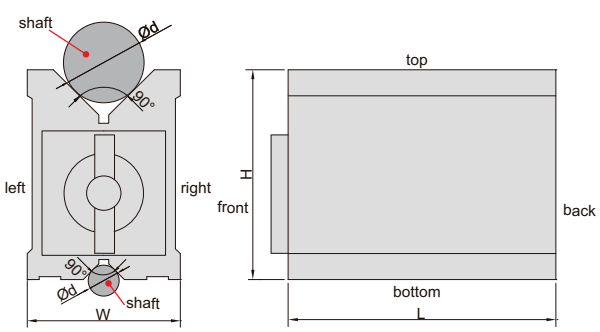
Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to top, bottom, left and right sides	Squareness of V groove to back side
6890-702	70x60x73mm	6-44mm	56kgf	10µm	10µm

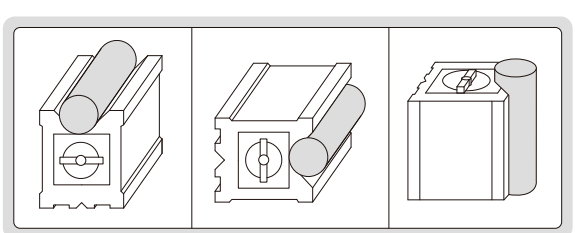
MAGNETIC V-BLOCK

ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACE

ATTENTION: NOT HARDENED

6801-1201





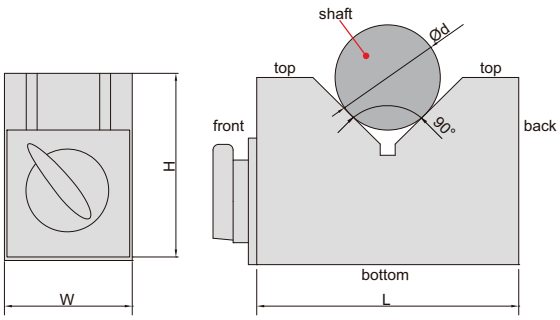
- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- V groove on the top for large shafts
- V groove on the bottom for small shafts
- Not suitable for steel or iron surface

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of both V grooves to top, bottom, left, right side	Squareness of both V grooves to back side
6801-1201	80x70x95mm	6-67mm	64kgf	10µm	10µm
6801-1202	100x70x95mm	6-67mm	80kgf	10µm	10µm
6801-1203	120x70x95mm	6-67mm	96kgf	10µm	10µm

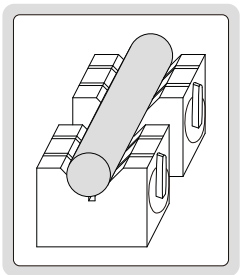
ATTENTION: LOW MAGNETIC FORCE

MAGNETIC V-BLOCK SET

6891-1



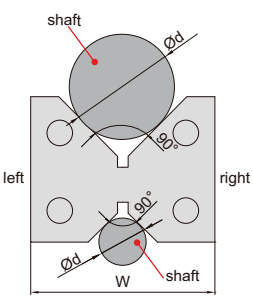
- Hold cylindrical workpieces for inspection, not suitable for machining due to low magnetic force
- Two V-blocks per set

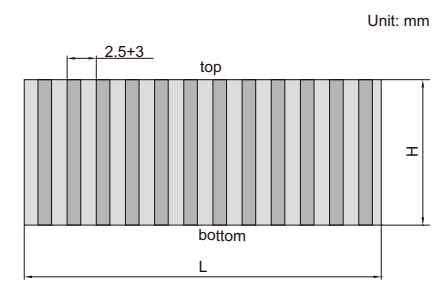


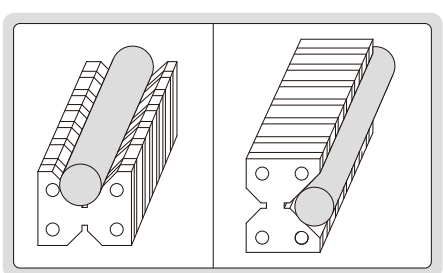
Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to bottom and back sides	Height difference of a matched pair
6891-1	70x40x50mm	6-46mm	8kgf	10μm	10μm
6891-3	150x50x100mm	6-125mm	14kgf	10μm	10μm

MAGNETIC INDUCTION V-BLOCK

6892-1





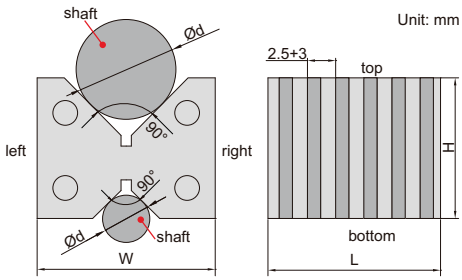


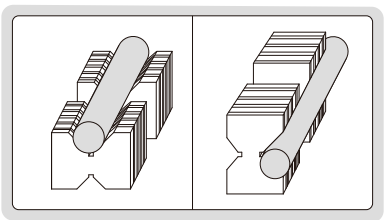
- Hold cylindrical workpieces for inspection and machining
- To be used on magnetic chucks
- Supplied in single piece
- V groove on the top for large shafts
- V groove on the bottom for small shafts

Code	Size (LxWxH)	Range of shafts (Ød)	Pole pitch	Parallelism of both V grooves to top, bottom, left, right sides
6892-1	110x60x48mm	6-50mm	2.5+3mm	10μm

MAGNETIC INDUCTION V-BLOCK SET

6899-1



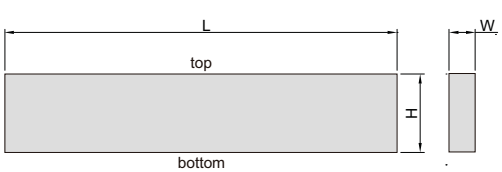


- Hold cylindrical workpieces for inspection and machining
- To be used on magnetic chucks
- Two V-blocks per set
- V groove on the top for large shafts
- V groove on the bottom for small shafts

Code	Size (LxWxH)	Range of shafts (Ød)	Pole pitch	Parallelism of both V grooves to top, bottom, left and right sides	Height difference of a matched pair
6899-1	50x60x48mm	6 - 50mm	2.5+3mm	10μm	10μm

PARALLEL SET

6533-144



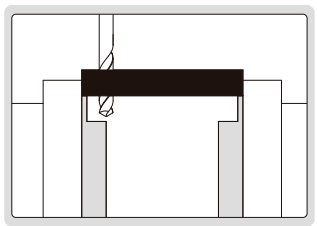
- Parallelism between top and bottom: 5μm
- Height difference of a matched pair: 5μm
- Hardened to HRC55-60

(mm)

Code	Parallels per set	Length (L)	Thickness (W)	Height (H)
6533-10	10 pairs	150	3	13, 16, 19, 22, 25, 28, 31, 35, 38, 41
6533-144	14 pairs	150	10	14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50
6533-6	6 pairs	200	9.5	35, 40, 45, 50, 55, 58

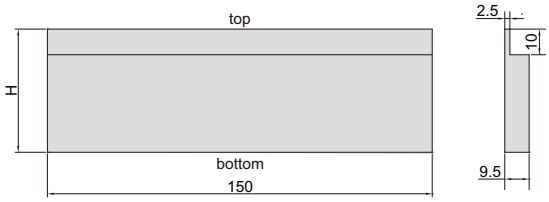
PARALLEL SET

6534-6



- Parallelism between top and bottom: 5μm
- Height difference of a matched pair: 5μm
- Hardened to HRC55-60

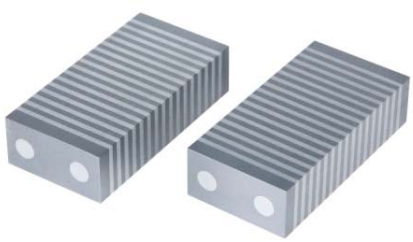
Unit: mm



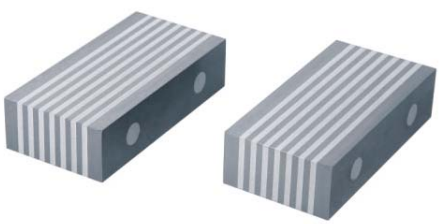
(mm)

Code	Parallels per set	Height (H)
6534-6	6 pairs	25, 30, 35, 40, 45, 48

MAGNETIC INDUCTION PARALLEL SET

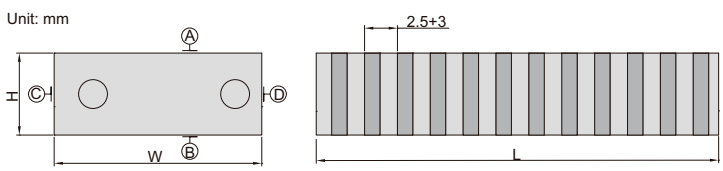


6894-1

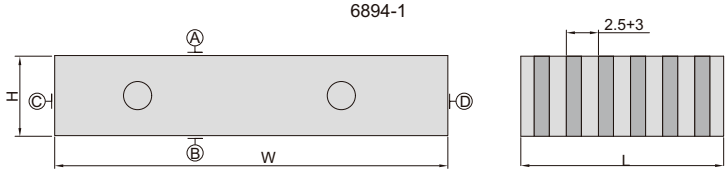


6894-2

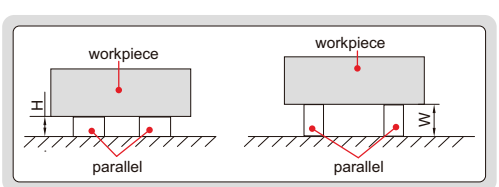
Unit: mm



6894-1



6894-2

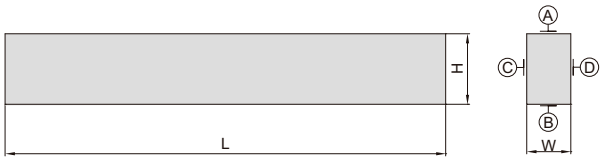


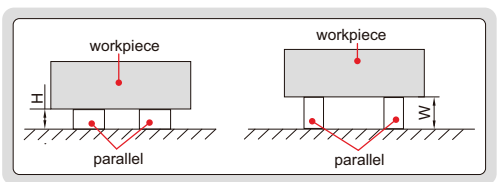
- To be used on magnetic chucks
- Two parallels per set

Code	Size (LxWxH)	Pole pitch	Parallelism between A and B	Parallelism between C and D	Height difference of a matched pair
6894-1	100x50x25mm	2.5+3mm	10μm	10μm	10μm
6894-2	50x100x25mm	2.5+3mm	10μm	10μm	10μm

GRANITE PARALLEL SET

4143-250

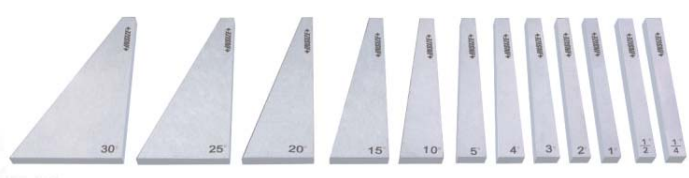




- Made of granite, hard and no rusty, no dimensional change over time or temperature change
- Two parallels per set

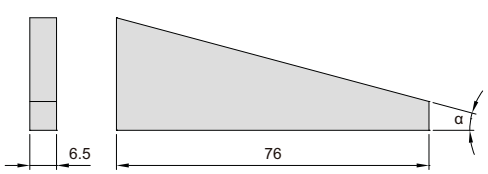
Code	Size (LxWxH)	Parallelism between A and B	Parallelism between C and D	Height difference of a matched pair
4143-250	250x25x40mm	3μm	3μm	3μm

ANGLE PLATE SET



4003-12

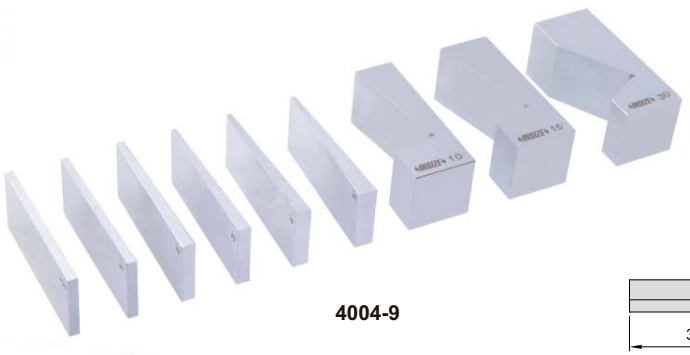
unit:mm



- For angle set-up in tooling, production and inspection
- Hardness HRC55

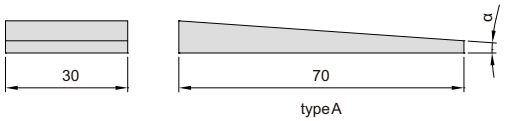
Code	Angle plates included	Angle α	Accuracy
4003-10	10	1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°	±9"
4003-12	12	1/4°, 1/2°, 1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°	±9"

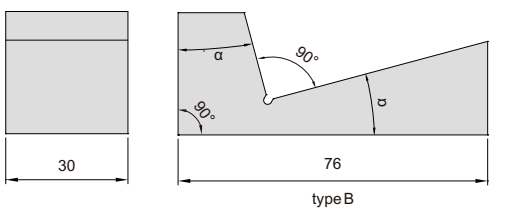
UNIVERSAL ANGLE PLATE SET



4004-9

Unit: mm

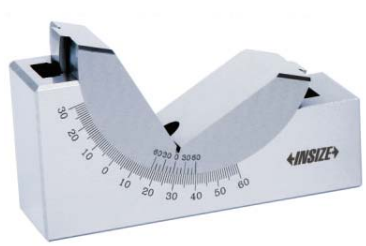




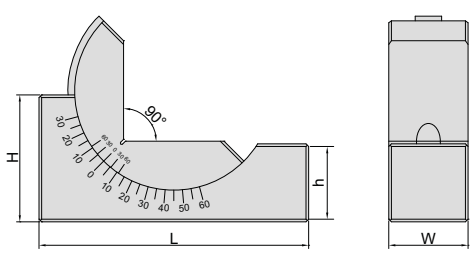
- For angle set-up in tooling, production and inspection
- Hardness HRC55

Code	Angle plates included	Angle α	Type	Accuracy
4004-9	9	½°, 1°, 2°, 3°, 4°, 5°	type A	±9"
		10°, 15°, 30°	type B	

ADJUSTABLE ANGLE BLOCK



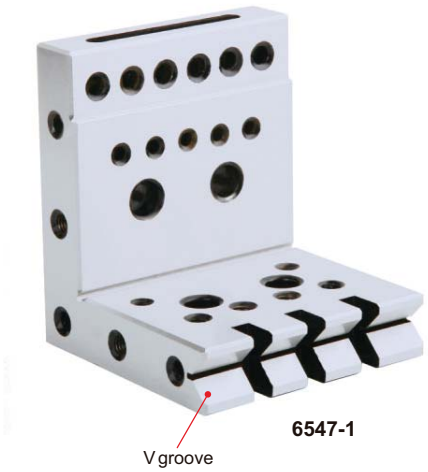
6535-30



- Made of hardened tool steel
- With locking screw

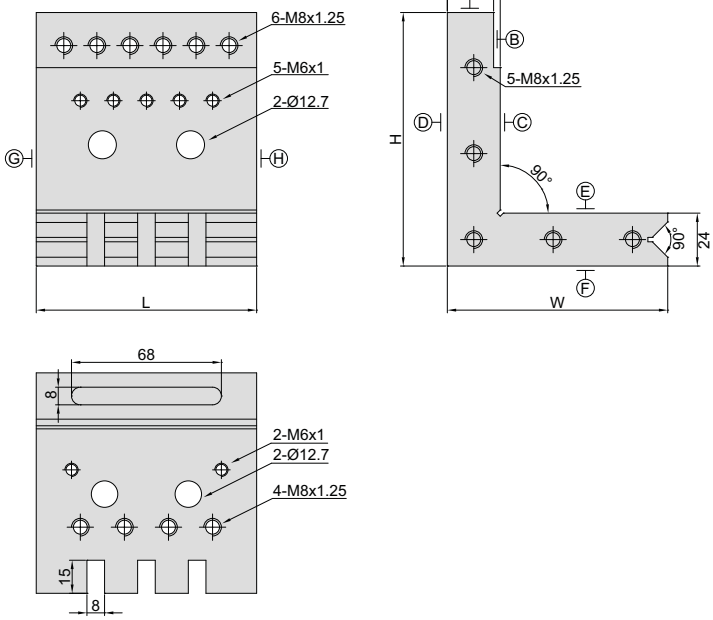
Code	Size (LxWxH)	h	Adjustable angle	Graduation of angle	Accuracy of angle
6535-25	75x25x36mm	25mm	30°~0°~60°	10'	10'
6535-30	102x30x49mm	30mm	30°~0°~60°	10'	10'

RIGHT ANGLE PLATE



6547-1

Unit: mm



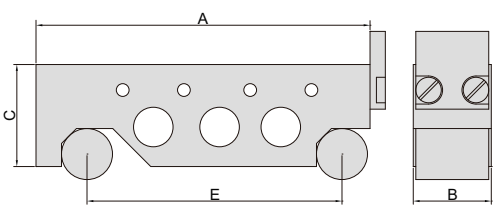
- Hardened to HRC60±2
- V groove for cylinders
- Parallelism and squareness between A, B, C, D, E, F, G and H: 6μm
- Parallelism and squareness of V groove to A, B, C, D, E, F, G and H: 6μm

Code	Size (LxWxH)
6547-1	100x100x115mm

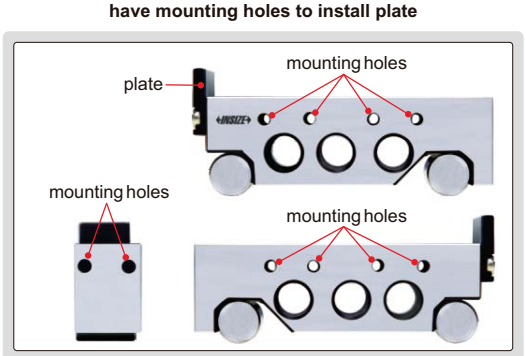
SINE BAR

HIGH PRECISION

4155-100

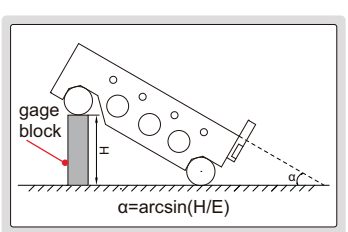


The front and back ends and two sides have mounting holes to install plate



- High precision

Code	Roller distance (E)	Table size (AxB)	C	Accuracy of α at 30°
4155-100	100mm	130x30mm	40mm	±5 seconds
4155-200	200mm	230x30mm	40mm	±5 seconds
4155-300	300mm	345x40mm	50mm	±8 seconds



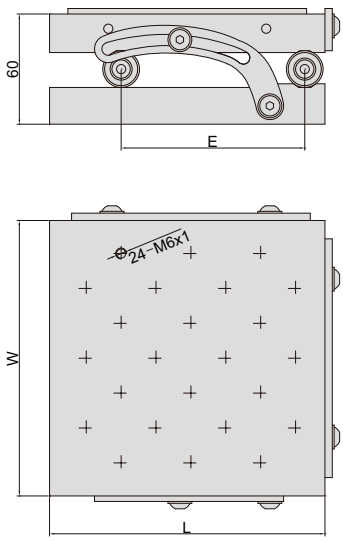
SINE TABLE

6527-100

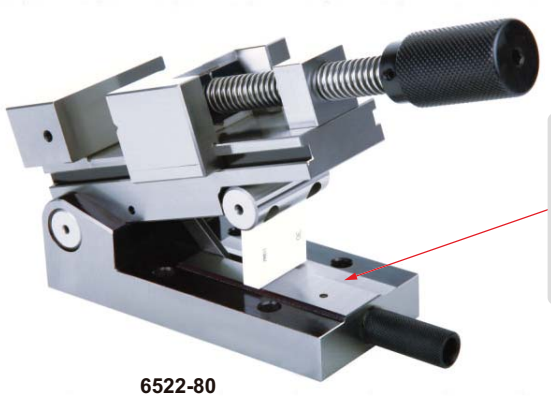
- Accuracy of angle: ±15"
- Hardness HRC58-60

Code	Roller distance (E)	Table size (LxW)	Adjustable angle
6527-100	100mm	150x150mm	0-60°

Unit: mm



PRECISION SINE VISE



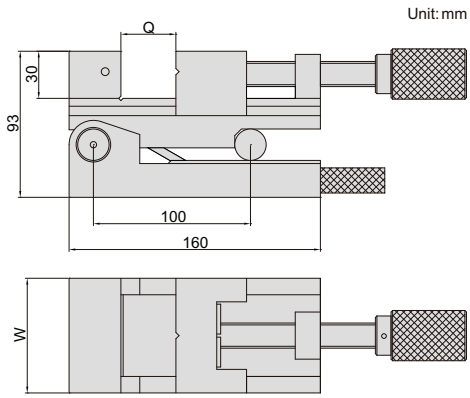
6522-80

There is a 1mm step (accuracy +/-0.002mm). Gage blocks smaller than 0.5mm are not available. If small gage blocks are needed (for example, 0.25mm), a gage block 1.25mm can be used in order to make 1.25mm - 1mm = 0.25mm.

- Parallelism: 3μm/100mm
- Squareness: 5μm/100mm
- Accuracy of angle: ±15"
- Made of SKS tool steel, subzero treatment
- Hardness HRC58-60

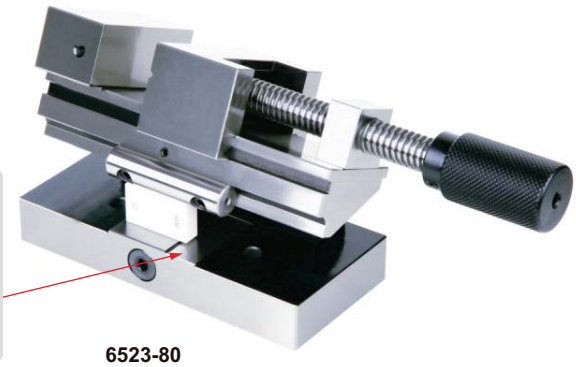
Code	Jaw opening (Q)	Jaw width (W)	Adjustable angle
6522-80	0-80mm	73mm	0-46°

Unit: mm



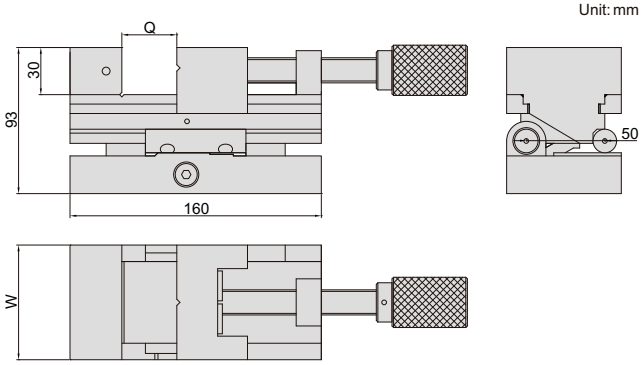
PRECISION SINE VISE

There is a 1mm step (accuracy +/-0.002mm). Gage blocks smaller than 0.5mm are not available. If small gage blocks are needed (for example, 0.25mm), a gage block 1.25mm can be used in order to make 1.25mm - 1mm = 0.25mm.



6523-80

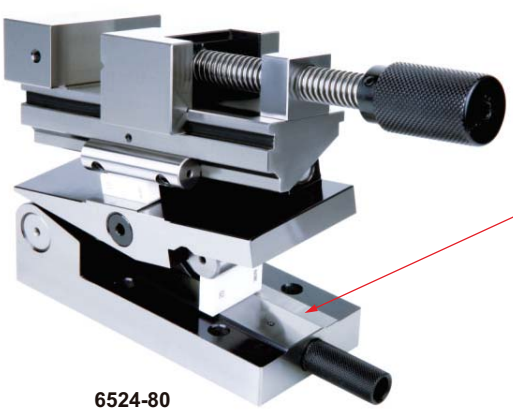
Unit: mm



- Parallelism: 3μm/100mm
- Squareness: 5μm/100mm
- Accuracy of angle: ±15"
- Made of SKS tool steel, subzero treatment
- Hardness HRC58-60

Code	Jaw opening (Q)	Jaw width (W)	Adjustable angle
6523-80	0-80mm	73mm	0-46°

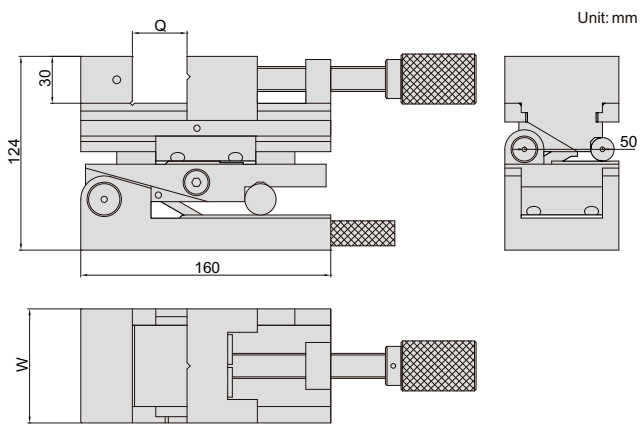
PRECISION COMPOUND SINE VISE



6524-80

There is a 1mm step (accuracy +/-0.002mm). Gage blocks smaller than 0.5mm are not available. If small gage blocks are needed (for example, 0.25mm), a gage block 1.25mm can be used in order to make 1.25mm - 1mm = 0.25mm.

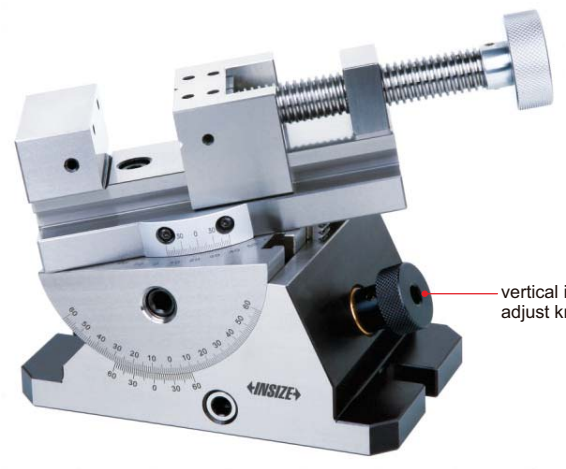
Unit: mm



- Parallelism: 3μm/100mm
- Squareness: 5μm/100mm
- Accuracy of angle: ±15"
- Made of SKS tool steel, subzero treatment
- Hardness HRC58-60

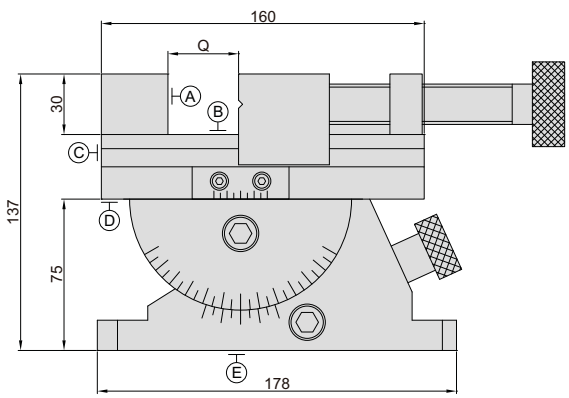
Code	Jaw opening (Q)	Jaw width (W)	Adjustable angle
6524-80	0-80mm	73mm	0-46°

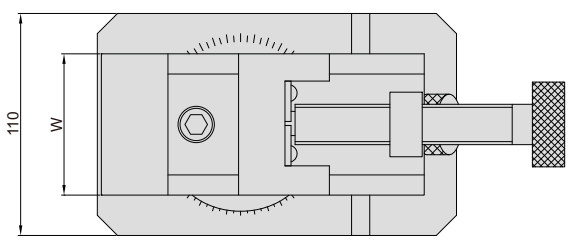
PRECISION UNIVERSAL VISE



6521-80

Unit: mm



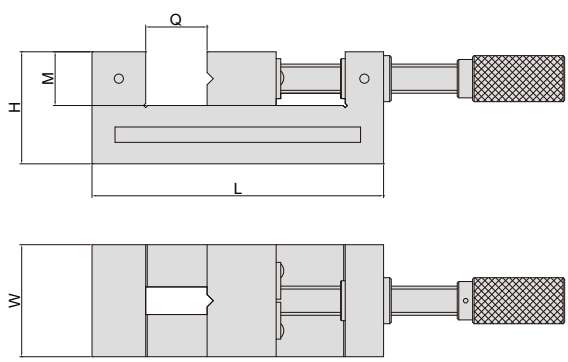


- Horizontal rotary: range 360°, graduation 0.05°
- Vertical incline: range 45°, graduation 0.05°
- With vertical incline adjust knob
- Parallelism and squareness between A, B, C and D: 5μm/100mm, parallelism between D and E at 0°: 10μm/100mm
- Made of tool steel
- Hardness HRC56-58

Code	Jaw opening(Q)	Jaw width(W)
6521-80	0-80mm	70mm

PRECISION VISE

6525-76

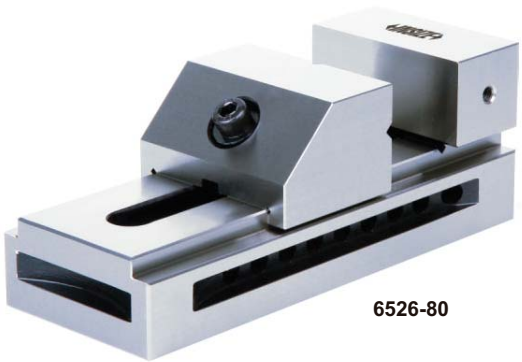


(mm)

Code	Jaw opening (Q)	Jaw width (W)	L	H	M
6525-73	0-73mm	63mm	176	63	30
6525-76	0-76mm	73mm	190	73	35
6525-120	0-120mm	98mm	255	82	40

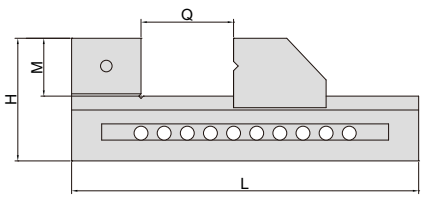
- Parallelism: 4μm/100mm
- Squareness: 6μm/100mm
- Made of SK2 tool steel
- Hardness HRC52-58

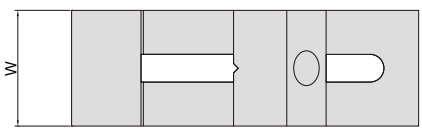
PRECISION VISE



6526-80

- Parallelism: 3μm/100mm
- Squareness: 5μm/100mm
- Made of SK2 tool steel
- Hardness HRC55-60



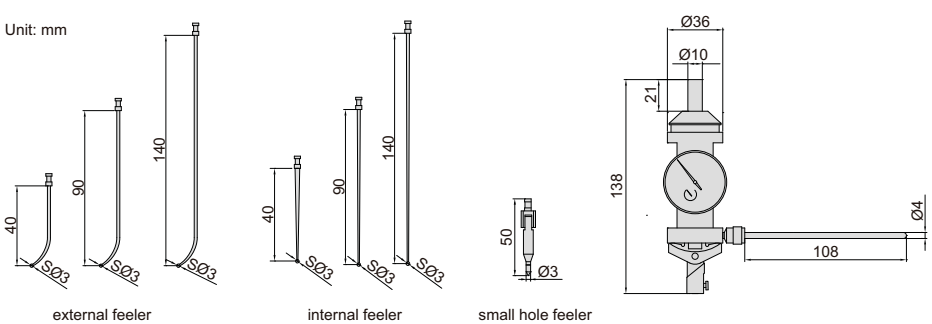


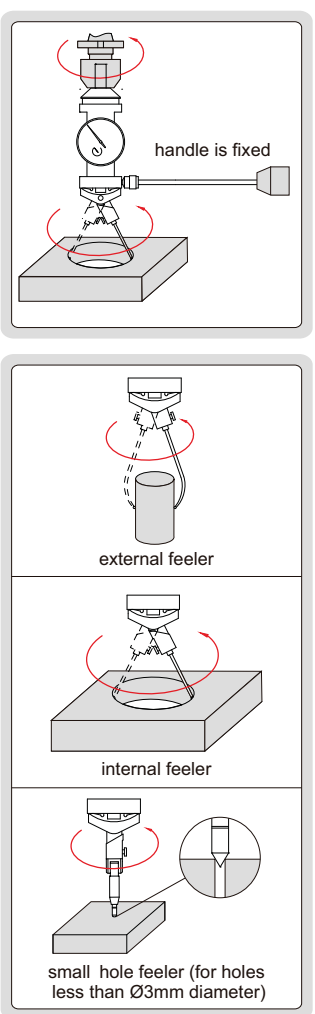
(mm)

Code	Jaw opening (Q)	Jaw width (W)	Overall length (L)	H	M
6526-80	0-80mm	50mm	150mm	53	25
6526-100	0-100mm	73mm	190mm	70	35

CENTERING INDICATOR

2385-3





Code
2385-3

- Provides quick and accurate centering in boring and milling set-up

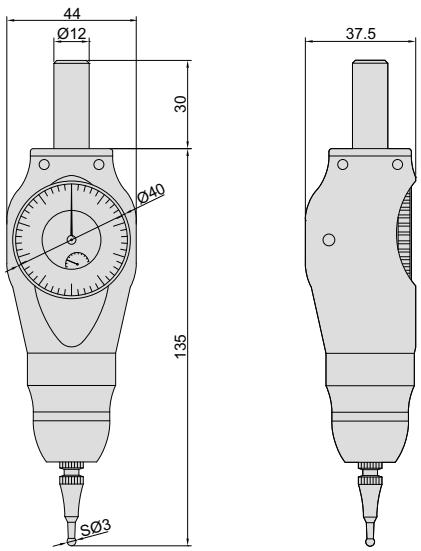
3D TESTER

COMPACT DESIGN

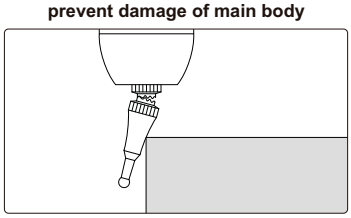
ANTI MAGNETIC CARBIDE CONTACT POINT

2842-3D

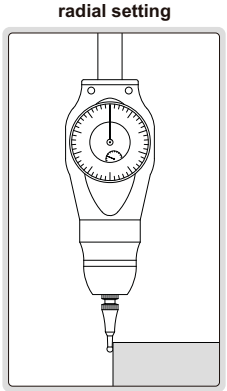
Unit: mm



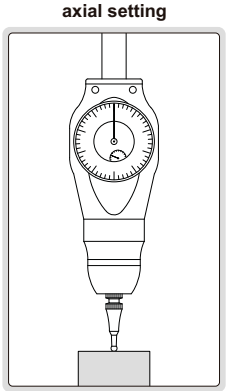
If probe tip is pressed too much, the probe breaks at the breaking point, in order to prevent damage of main body



radial setting



axial setting

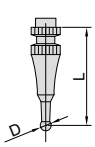


Code	Range	Graduation
2842-3D	1.5mm	0.01mm

Probe (optional)

(mm)

Code	Name	L	D
2842-N1	standard probe	27	SØ3
2842-N2	long probe	62	SØ6



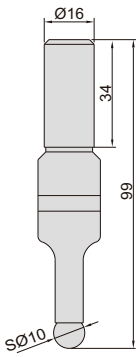
2842-N1

2842-N2

2D ELECTRONIC EDGE FINDER

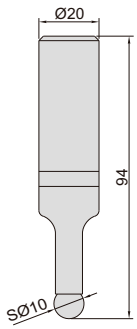
6570-1

6570-2

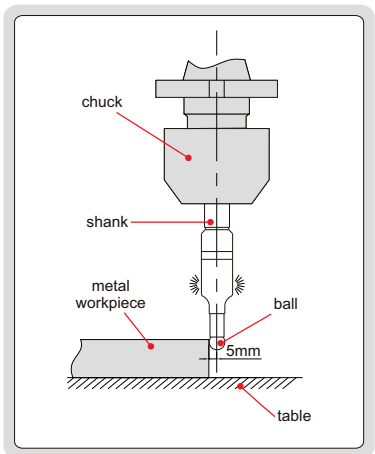


6570-1

Unit: mm



6570-2



- The shank is electrically conducted to the metal workpiece through the chuck and table, the LED lights up, when the ball touches the workpiece
- Not suitable for rotary use
- Hardened contact ball

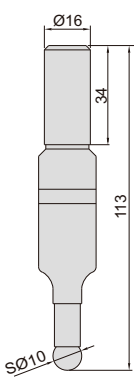
Code	Shank	Contact ball	Accuracy	Battery
6570-1	Ø16mm	SØ10mm	10μm	A23S, 12Vx1pc
6570-2	Ø20mm	SØ10mm	10μm	A23S, 12Vx1pc

3D ELECTRONIC EDGE FINDER

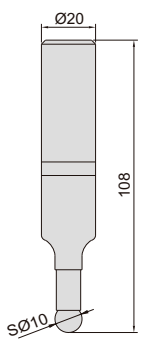
6571-1

6571-2

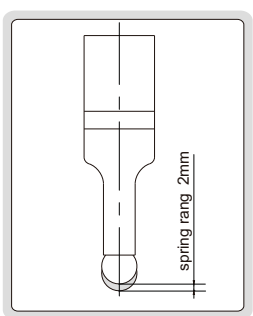
Unit: mm



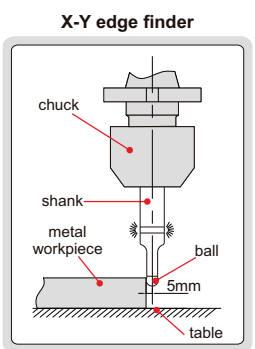
6571-1



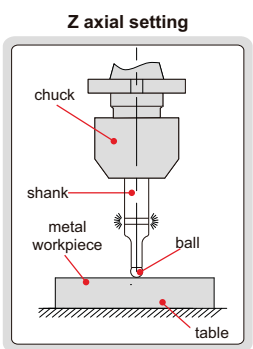
6571-2



X-Y edge finder



Z axial setting

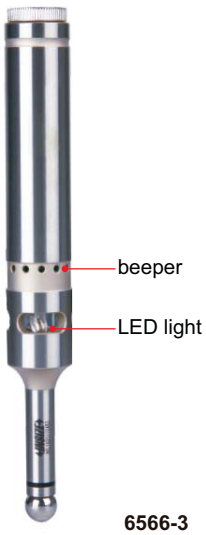


- The shank is electrically conducted to the metal workpiece through the chuck and table, the LED lights up, when the ball touches the workpiece
- Not suitable for rotary use
- Hardened contact ball

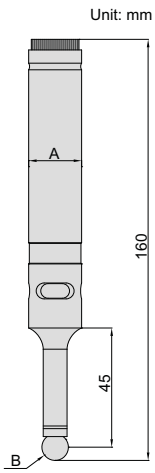
Code	Shank	Contact ball	Accuracy	Battery
6571-1	Ø16mm	SØ10mm	10μm	A23S, 12Vx1pc
6571-2	Ø20mm	SØ10mm	10μm	A23S, 12Vx1pc

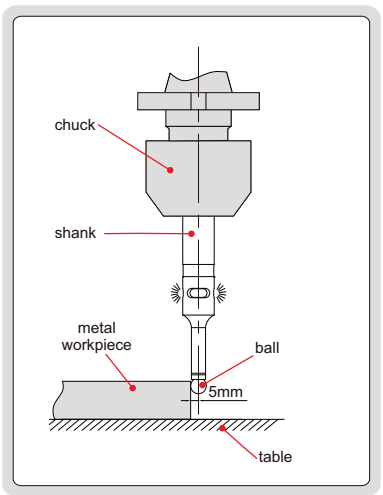
ELECTRONIC EDGE FINDER

6566-2



6566-3



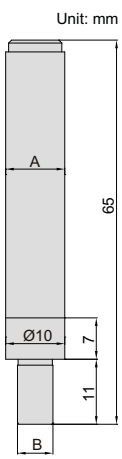


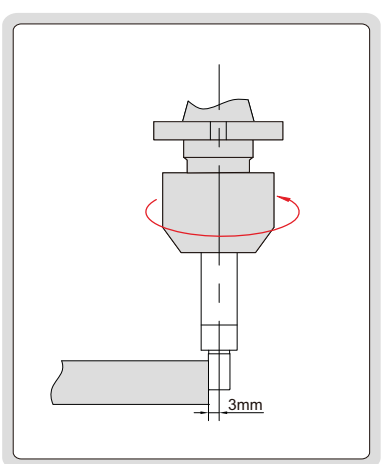
- The shank is electrically conducted to the metal workpiece through the chuck and table, the LED lights up and the beeper sounds(only for **6566-3**), when the ball touches the workpiece
- Not suitable for rotary use
- Hardened shank and contact ball

Code	Shank (A)	Contact ball (B)	Accuracy	Beeper	Battery
6566-2	Ø20mm	SØ10mm	5μm	without	23AE, 12Vx1pc
6566-3	Ø20mm	SØ10mm	5μm	with	23AE, 12Vx1pc

EDGE FINDER

6567-1





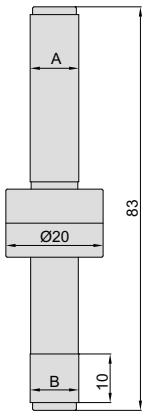
- Hardened shank and contact point

Code	Shank (A)	Contact point (B)	Accuracy
6567-1	Ø10mm	Ø6mm	8μm

EDGE FINDER

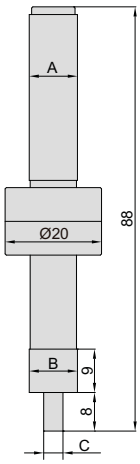
6562-3

6562-4

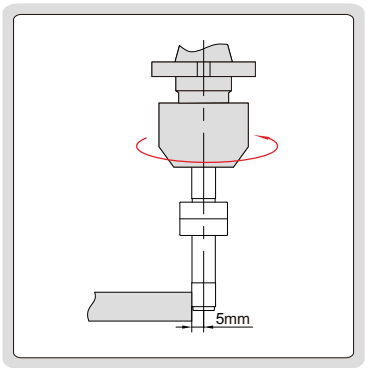


6562-3

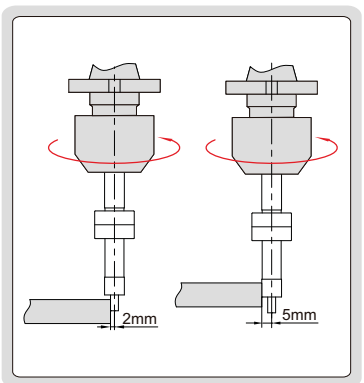
Unit: mm



6562-4



6562-3



6562-4

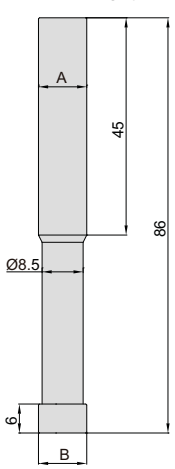
- Hardened shank and contact point

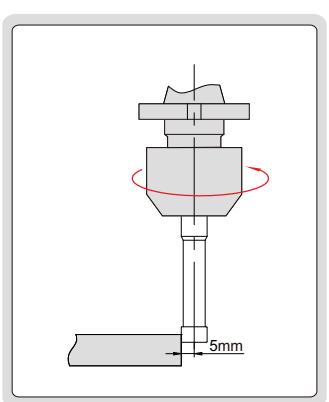
Code	Shank (A)	Contact point (B)	Contact point (C)	Accuracy
6562-3	Ø10mm	Ø10mm	—	5µm
6562-4	Ø10mm	Ø10mm	Ø4mm	5µm

CERAMIC EDGE FINDER

6568-1

Unit: mm





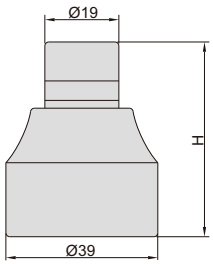
- Ceramic contact point, non magnetic

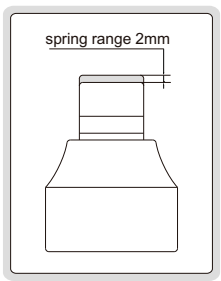
Code	Shank (A)	Contact point (B)	Accuracy
6568-1	Ø10mm	Ø10mm	8µm

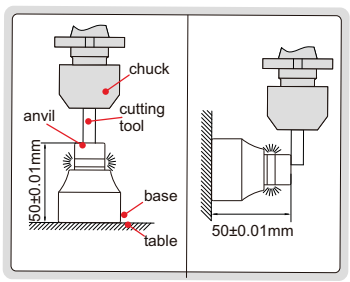
ELECTRONIC ZERO SETTER

LOW TEST FORCE

Unit: mm







6553-50

- The base is electrically conducted to the cutting tools through the table and chuck, the LED lights up when the cutting tool touches the anvil
- Magnetic base
- Two batteries LR44

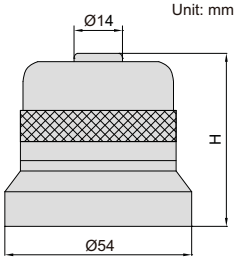
Code	Height (H)	Accuracy	Test force
6553-50	50mm	±10μm	7N (at 49mm)

ELECTRONIC ZERO SETTER

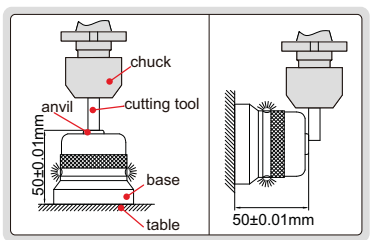
ATTENTION: HIGH TEST FORCE

- The base is electrically conducted to the cutting tools through the table and chuck, the LED lights up when the cutting tool touches the anvil
- Magnetic base
- Battery LR44

Unit: mm



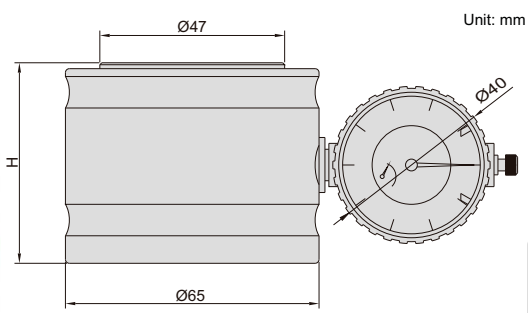
6550-50A

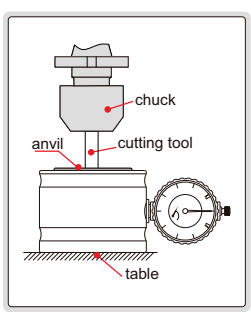


Code	Height (H)	Accuracy	Test force
6550-50A	50mm	±10μm	27N (at 49mm)

ZERO SETTER

Unit: mm



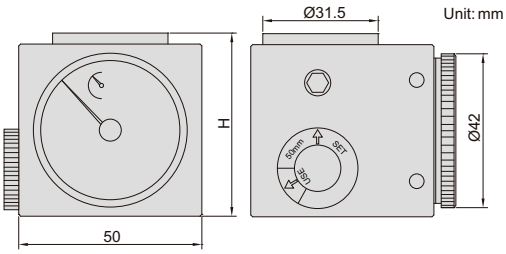


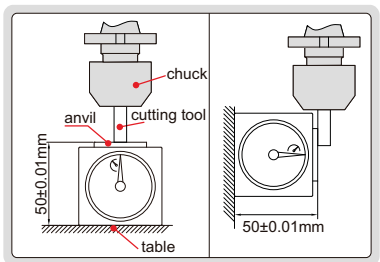
6554-50

Code	Height (H)	Accuracy	Test force
6554-50	50mm	±10μm	9N (at 50mm)

ZERO SETTER

2397-502A



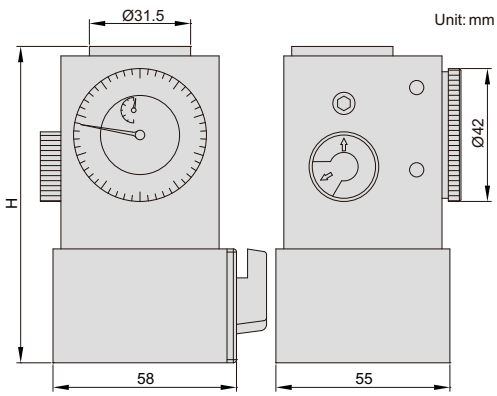


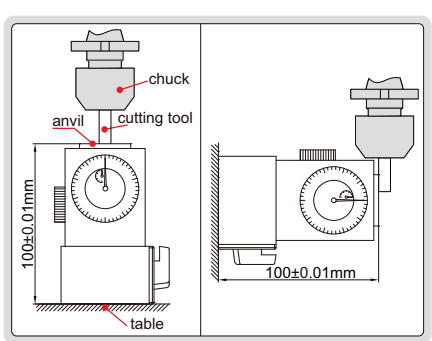
- Magnetic base

Code	Height (H)	Accuracy	Test force
2397-502A	50mm	±10μm	9N (at 50mm)

ZERO SETTER

2394-100A





- Magnetic base with on-off switch

Code	Height (H)	Accuracy	Test force
2394-100A	100mm	±10μm	9N (at 100mm)

2-PIECE MEASURING TOOL SET

5021

- Includes:
  1) Vernier caliper, range 0-150mm/0-6", graduation 0.05mm/1/128" (code **1205-150**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)

Code
5021

2-PIECE MEASURING TOOL SET

5022-W

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" (code **1108-150W**)
  2) Digital outside micrometer, range 0-25mm/0-1", resolution 0.001mm/0.00005" (code **3109-25B**)

Code
5022-W

2-PIECE MEASURING TOOL SET

5023

- Includes:
  1) Dial test indicator, range 0.8mm,
     graduation 0.01mm (code **2380-08**)
  2) Magnetic stand

Code
5023

2-PIECE MEASURING TOOL SET

5024

- Includes:
  1) Dial indicator, range 10mm,
     graduation 0.01mm (code **2308-10A**)
  2) Magnetic stand (code **6201-60**)

Code
5024

3-PIECE MEASURING TOOL SET

- Includes:
  1) Digital indicator, range 12.7mm/0.5", resolution 0.01mm/0.0005" (code **2112-10**)
  2) Flex arm
  3) Locking pliers, adjustable jaw opening from 0 to 25mm

Code
5031

5031

4-PIECE MEASURING TOOL SET

- Includes:
  1) Vernier caliper, range 0-150mm/0-6", graduation 0.05mm/1/128" (code **1205-150**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
  3) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  4) Steel rule, 150mm/6" (code **7110-150**)

Code
5041

5041

4-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" (code **1108-150W**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm, (code **3202-25A**)
  3) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  4) Steel rule, 150mm/6" (code **7110-150**)

5042-W

Code
5042-W

5-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005", (code **1108-150W**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
  3) Dial indicator, range 10mm, graduation 0.01mm (code **2308-10A**)
  4) Magnetic stand (code **6201-60**)
  5) Micrometer stand (code **6300**)

5051-W

Code
5051-W

5-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" (code **1108-150W**)
  2) Digital outside micrometer, range 0-25mm/0-1", resolution 0.001mm/0.00005" (code **3109-25B**)
  3) Digital indicator, range 12.7mm/0.5", resolution 0.01mm/0.0005" (code **2112-10**)
  4) Magnetic stand (code **6201-60**)
  5) Micrometer stand (code **6300**)

Code
5052-W

5052-W

6-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" (code **1108-150W**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
  3) Dial indicator, range 10mm, graduation 0.01mm (code **2308-10FA**)
  4) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  5) Scriber (code **7230**)
  6) Steel rule, 150mm/6" (code **7110-150**)

Code
5061-W

5061-W

6-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6"
     resolution 0,01mm/0,0005" (code **1108-150W**)
  2) Outside micrometer, range 0-25mm
     graduation 0,01mm (code **3202-25A**)
  3) 90° beveled edge square, 100x70mm
     grade 00 (code **4790-0100**)
  4) Straight edge, 100mm
     (code **4700-100**)
  5) Spring divider, 150mm (code **7260-150**)
  6) Steel rule, 200mm/8" (code **7110-200**)

Code
5062-W

5062-W

6-PIECE MEASURING TOOL SET

- Includes:
  1) Vernier caliper, range 0-150mm/0-6"
     graduation 0,05mm/1/128"
     (code **1205-150**)
  2) Outside micrometer, range 0-25mm
     graduation 0,01mm (code **3202-25A**)
  3) 90° beveled edge square, 100x70mm
     grade 00 (code **4790-0100**)
  4) Straight edge, 100mm
     (code **4700-100**)
  5) Spring divider, 150mm (code **7260-150**)
  6) Steel rule, 200mm/8" (code **7110-200**)

Code
5063

5063

9-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" (code **1108-150W**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
  3) Protractor, range 0-180°, graduation 1° (code **4799-180**)
  4) Pitch gauge, range 0.25-7mm, 24pcs, metric 60° thread (code **4820-124**)
  5) Radius gauge, range 1-7mm (code **4801-17**)
  6) Feeler gauge, range 0.05-1.00mm, 20pcs (code **4602-20**)
  7) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  8) Scriber (code **7230**)
  9) Steel rule, 150mm/6" (code **7110-150**)

Code
5091-W

5091-W

13-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005", (code **1108-150W**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
  3) Dial indicator, range 10mm, graduation 0.01mm (code **2308-10A**)
  4) Magnetic stand (code **6201-60**)
  5) Protractor, range 0-180°, graduation 1° (code **4799-180**)
  6) Pitch gauge, range 0.25-7mm, 24pcs, metric 60° thread (code **4820-124**)
  7) Radius gauge, range 1-7mm (code **4801-17**)
  8) Feeler gauge, range 0.05-1.00mm, 20pcs (code **4602-20**)
  9) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  10) Scriber (code **7230**)
  11) Steel rule, 150mm/6" (code **7110-150**)
  12) Depth base attachment (code **6140**)
  13) Zero setting bar

Code
5013-W

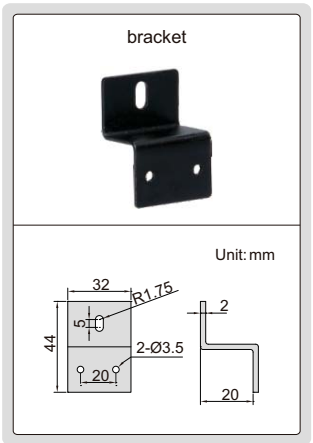
5013-W

DIGITAL HORIZONTAL SCALE

DATA OUTPUT

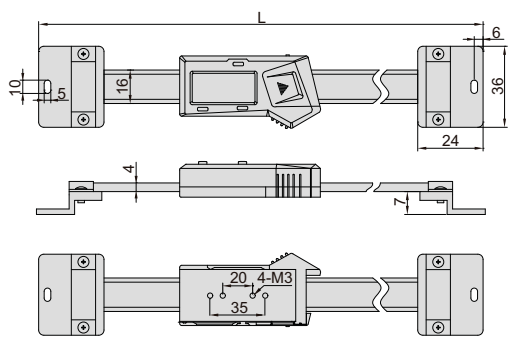
7101-300A

7101-400A



Unit: mm

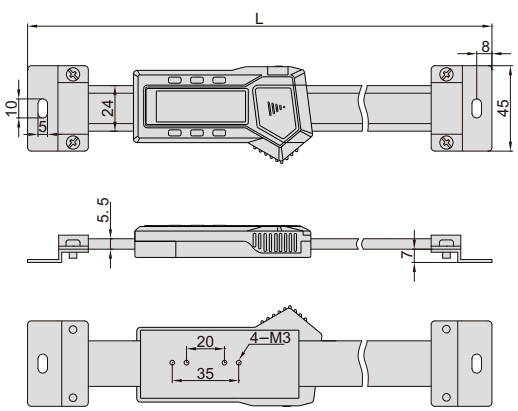
type A



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with bracket to be mounted on the back
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B,7305-SPC2**)

Unit: mm

type B



- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Absolute and incremental measurement
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with bracket to be mounted on the back
- Optional accessory: data output cable (code **7306-20, 7302-SPC1A/SPC1B,7305-SPC2**)

(mm)

Code	Range	Type	Accuracy	L
7101-100A	100mm	A	±0.02mm	215
7101-150A	150mm	A	±0.03mm	265
7101-200A	200mm	A	±0.03mm	315
7101-300A	300mm	A	±0.04mm	445
7101-400A	400mm	B	±0.05mm	590

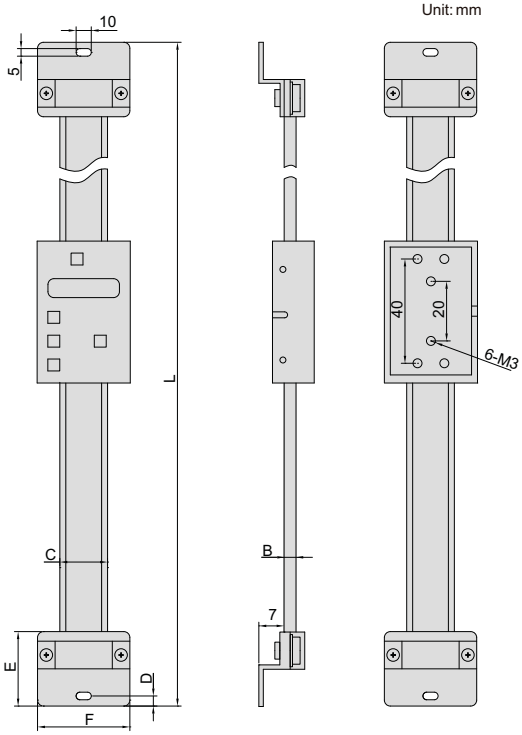
(mm)

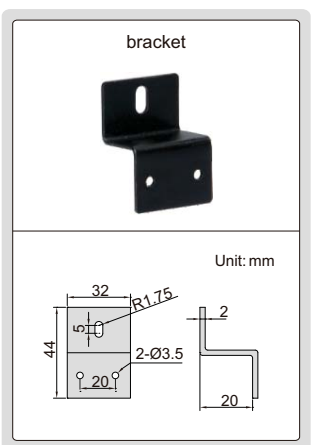
Code	Range	Type	Accuracy	L
7101-500A	500mm	B	±0.05mm	690
7101-600A	600mm	B	±0.08mm	790
7101-800A	800mm	B	±0.10mm	990
7101-1000A	1000mm	B	±0.10mm	1190

DIGITAL VERTICAL SCALE

7102-300

Unit: mm





- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero set, mm/in, data set
- Battery LR44
- Made of stainless steel
- Supplied with bracket to be mounted on the back

(mm)

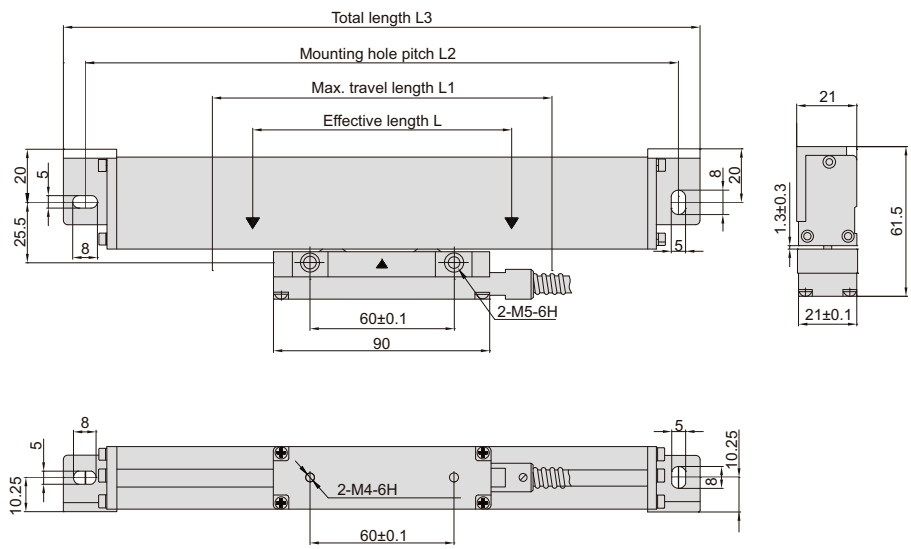
Code	Range	Accuracy	B	C	D	E	F	L
7102-100	100mm	±0.02mm	4	20	6	24	40	245
7102-150	150mm	±0.03mm	4	20	6	24	40	296
7102-200	200mm	±0.03mm	4	20	6	24	40	345
7102-300	300mm	±0.04mm	4	20	6	24	40	445
7102-400	400mm	±0.05mm	4	20	6	24	40	545
7102-500	500mm	±0.05mm	5.5	24	8	32	45	685
7102-600	600mm	±0.08mm	5.5	24	8	32	45	785
7102-800	800mm	±0.10mm	5.5	24	8	32	45	985
7102-1000	1000mm	±0.10mm	5.5	24	8	32	45	1185

LINEAR SCALE

ISL-A1-300

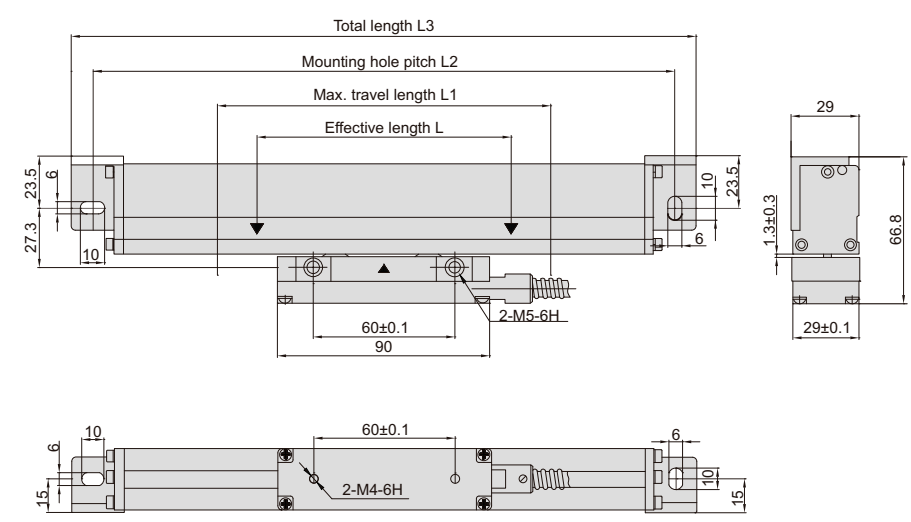
Series ISL-A1 and ISL-A5

Unit: mm



Series ISL-B5

Unit: mm



To be continued

Continued from previous page

Effective length(L)	Code		
	Series ISL-A1	Series ISL-A5	Series ISL-B5
50mm	ISL-A1-50	ISL-A5-50	ISL-B5-50
100mm	ISL-A1-100	ISL-A5-100	ISL-B5-100
150mm	ISL-A1-150	ISL-A5-150	ISL-B5-150
200mm	ISL-A1-200	ISL-A5-200	ISL-B5-200
250mm	ISL-A1-250	ISL-A5-250	ISL-B5-250
300mm	ISL-A1-300	ISL-A5-300	ISL-B5-300
350mm	ISL-A1-350	ISL-A5-350	ISL-B5-350
400mm	ISL-A1-400	ISL-A5-400	ISL-B5-400
450mm	ISL-A1-450	ISL-A5-450	ISL-B5-450
500mm	ISL-A1-500	ISL-A5-500	ISL-B5-500
550mm	ISL-A1-550	ISL-A5-550	ISL-B5-550
600mm	ISL-A1-600	ISL-A5-600	ISL-B5-600
650mm	ISL-A1-650	ISL-A5-650	ISL-B5-650
700mm	ISL-A1-700	ISL-A5-700	ISL-B5-700
750mm	ISL-A1-750	ISL-A5-750	ISL-B5-750
800mm	ISL-A1-800	ISL-A5-800	ISL-B5-800
850mm	ISL-A1-850	ISL-A5-850	ISL-B5-850
900mm	ISL-A1-900	ISL-A5-900	ISL-B5-900
950mm	ISL-A1-950	ISL-A5-950	ISL-B5-950
1000mm	ISL-A1-1000	ISL-A5-1000	ISL-B5-1000
1100mm		ISL-A5-1100	ISL-B5-1100

Effective length(L)	Code	
	Series ISL-A5	Series ISL-B5
1200mm	ISL-A5-1200	ISL-B5-1200
1300mm	ISL-A5-1300	ISL-B5-1300
1400mm	ISL-A5-1400	ISL-B5-1400
1500mm	ISL-A5-1500	ISL-B5-1500
1600mm	ISL-A5-1600	ISL-B5-1600
1700mm	ISL-A5-1700	ISL-B5-1700
1800mm	ISL-A5-1800	ISL-B5-1800
1900mm	ISL-A5-1900	ISL-B5-1900
2000mm	ISL-A5-2000	ISL-B5-2000
2100mm	ISL-A5-2100	ISL-B5-2100
2200mm	ISL-A5-2200	ISL-B5-2200
2300mm	ISL-A5-2300	ISL-B5-2300
2400mm	ISL-A5-2400	ISL-B5-2400
2500mm	ISL-A5-2500	ISL-B5-2500
2600mm	ISL-A5-2600	ISL-B5-2600
2700mm	ISL-A5-2700	ISL-B5-2700
2800mm	ISL-A5-2800	ISL-B5-2800
2900mm	ISL-A5-2900	ISL-B5-2900
3000mm	ISL-A5-3000	ISL-B5-3000
3100mm	ISL-A5-3100	ISL-B5-3100
3200mm	ISL-A5-3200	ISL-B5-3200

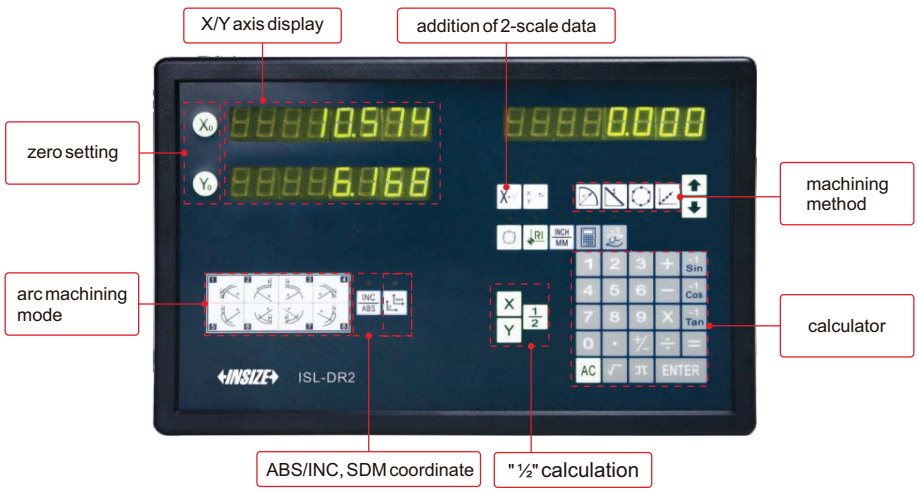
SPECIFICATION

	Series ISL-A1		Series ISL-A5		Series ISL-B5	
L1(mm)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)
L2(mm)	L+132(L<950)	L+152(L≥950)	L+132(L<950)	L+152(L≥950)	L+136(L<950)	L+156(L≥950)
L3(mm)	L+149(L<950)	L+169(L≥950)	L+149(L<950)	L+169(L≥950)	L+154(L<950)	L+174(L≥950)
Resolution	1μm		5μm		5μm	
Max. response speed	50m/min		90m/min		60m/min	
Scale grating pitch	20μm					
Scale reference point pitch	50mm					
Accuracy	±(5+5L/1000)μm L is the effective length in mm					
Cable length	3.5m (L: 50-950mm) 5m (L: 1000-1500mm) 10m (L: 1600-3200mm)					

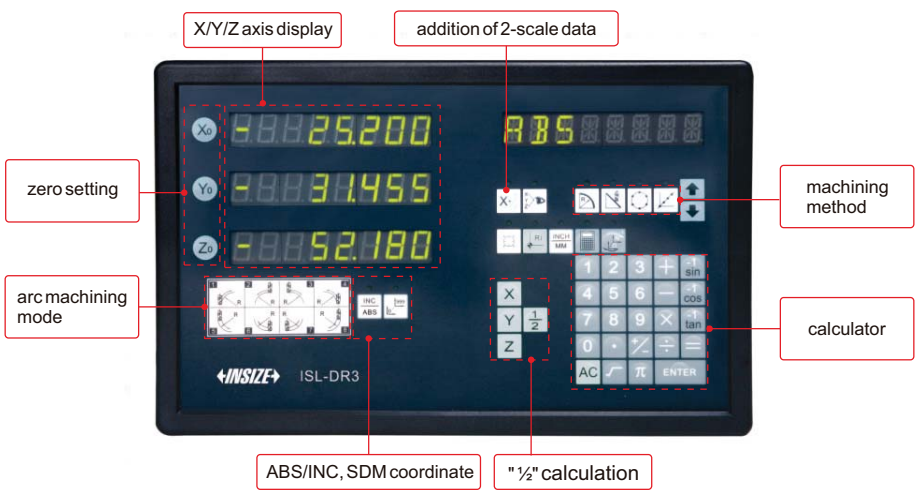
STANDARD DELIVERY

Main unit	1pc
'L' shape support	1pc
Anti-dust cover	1pc
Plain base	1pc (for L ≥1500mm)

COUNTER



ISL-DR2



ISL-DR3

SPECIFICATION

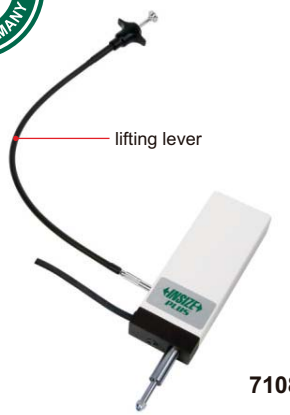
Code	ISL-DR2	ISL-DR3
Application	two-axis	three-axis
Scale input ports	2	3
Resolution	0.05μm, 0.1μm, 0.2μm, 0.5μm, 1μm, 2μm, 5μm, 10μm, 20μm, 50μm	
Functions	addition of 2-scale data, linearity error compensation, smoothing, RS232C interface unit,	
	BCD code out, zero setting, preset, resolution setting, counting direction setting,	
	inch/mm conversion, ABS/INC conversion, expansion/contraction coefficient setting,	
	"½" calculation, detecting RI, bolt-hole circle machining, ramp circle machining	
Power supply	110/220V, 50/60Hz	
Dimension	295×185×45mm	
Weight	1.45kg	

STANDARD DELIVERY

Main unit	1pc
Mounting bracket	1pc
Ground cable	1pc

RS232C cable	1pc
Software CD for RS232C	1pc

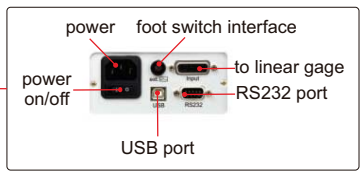
HIGH PRECISION LINEAR GAGE AND DISPLAY UNIT



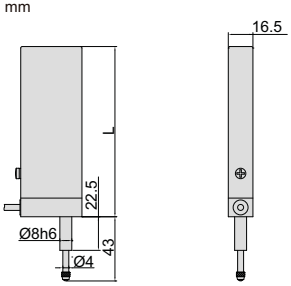
7108-10

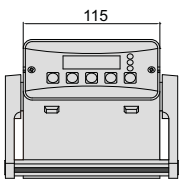
7108-1

BACK OF DISPLAY UNIT

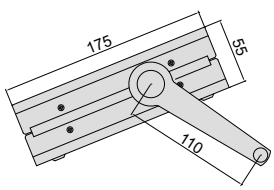


Unit: mm





Unit: mm



- Linear gage:
  - Incremental glass scale sensor, with built-in roller bearing, high precision
  - With lifting lever, for quick measurement
- Display unit:
  - Set zero or output data through foot switch (optional)
  - Measuring direction can be changed
  - The reading can be preset
  - Can make accuracy compensation

APPLICATION

foot switch (optional), code: **7108-2**

LINEAR GAGE SPECIFICATION

Code	7108-10	7108-30
Measuring range	10mm	30mm
Resolution	0.01μm	
Accuracy	(0.5+L/60)μm, L is measuring length in mm	
Dust/waterproof	IP50	
Output signal	1Vss	
Grating pitch	8μm	
Measuring force	0.7~1.6N	
Cable length	1.5m	
Linear gage length (L)	113.5mm	133.5mm

DISPLAY UNIT SPECIFICATION

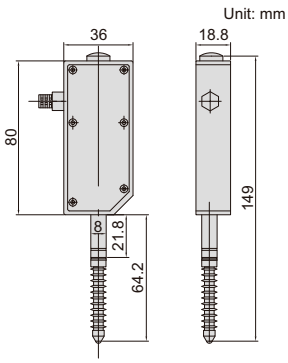
Code	7108-1
Display	8 digits
Character height	9mm
Quantity of linear gages to be connected	single channel, to connect one linear gage*
Dust/waterproof	IP20
Display unit	mm, inch, grad
Resolution	1μm, 0.1μm, 0.01μm
Data output	USB, RS232
Power supply	AC 85~264V, 150mA

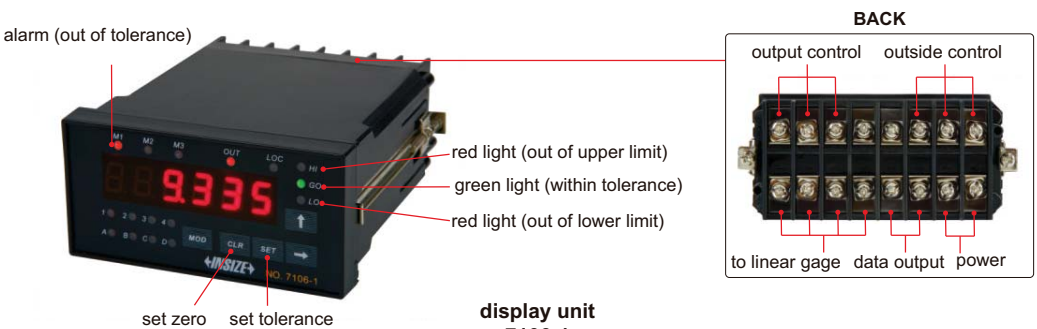
*Double channel display is optional

LINEAR GAGE AND DISPLAY UNIT

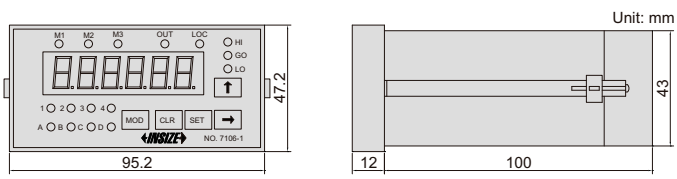
LINEAR GAGE
IP65
WATERPROOF

linear gage





display unit
7106-1



- Linear gage: shock-proof, water proof, dust proof, suitable for high speed movement, long working life
- Display unit: set tolerance and make judgment (out of upper limit, within tolerance, out of lower limit), output the judgment to control outside devices, set zero and hold reading from outside

LINEAR GAGE SPECIFICATION

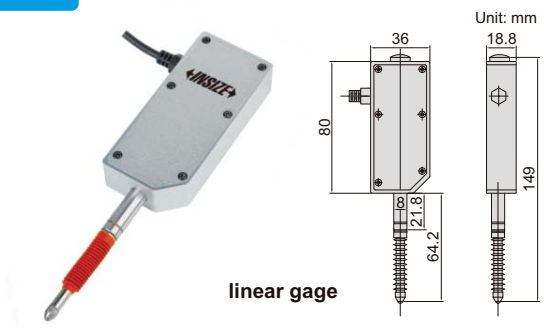
Code	7106-11	7106-12
Measuring range	12mm	12mm
Resolution	0.01mm	0.001mm
Accuracy	20μm	5μm
Hysteresis	10μm	2μm
Measuring principle	capacity system	
Voltage	5V	
Sampling frequency	100 times/sec.	
Working life	ten million times	
Dust/waterproof	IP65	
Measuring force	1.5N	
Cable length	2m	
Data output	four-core wire	

DISPLAY UNIT SPECIFICATION

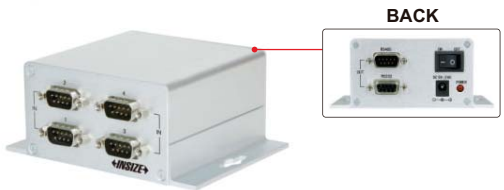
Code	7106-1
Display	6 digits
Quantity of linear gages to be connected	1pc
Tolerance	set tolerance and make judgment with alarm and lights (out of upper limit, within tolerance, out of lower limit)
Output control	output the tolerance judgment (out of upper tolerance, within tolerance, out of lower tolerance) to control outside devices
Outside control	control the display units from outside (set zero, hold reading)
Data output	connect to PC
Power supply	DC 9~24V

LINEAR GAGE
IP65
WATERPROOF

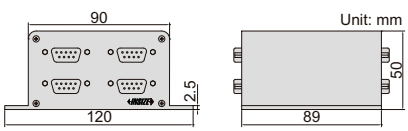
MULTI LINEAR GAGE SYSTEM



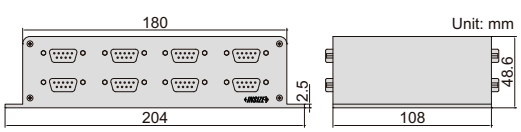
linear gage

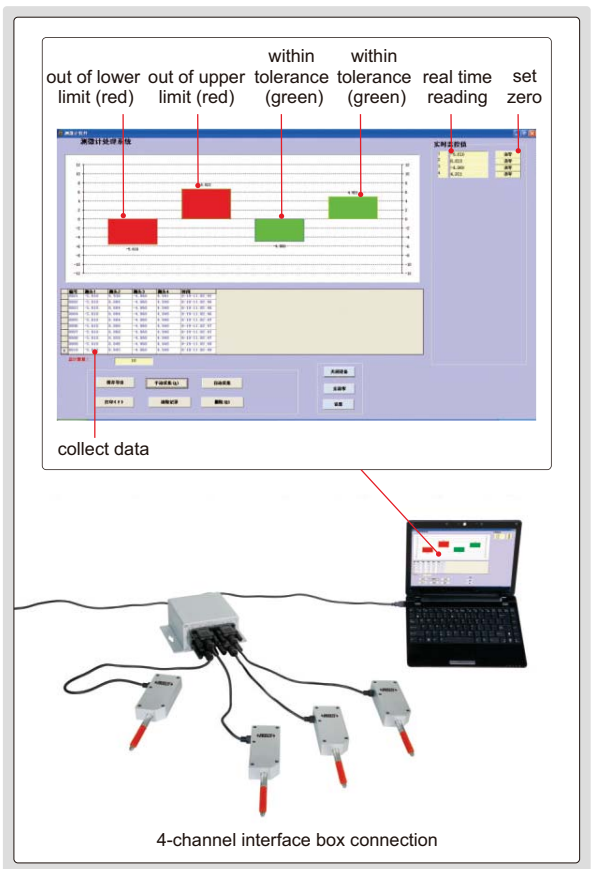


4-channel interface box
7107-1



8-channel interface box
7107-2





- Software is supplied with interface boxes. In the software, it is possible to set tolerance of each channel and show judgment (red when out of tolerance, green when within tolerance), set zero, collect data manually or automatically (time is adjustable), output data to Excel, print report

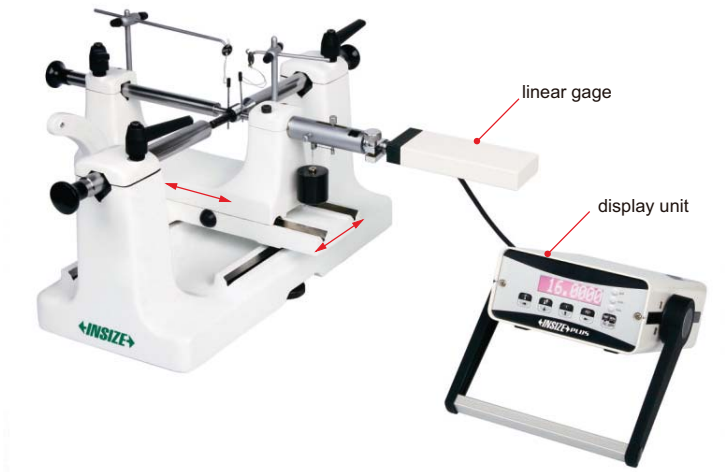
INTERFACE BOX SPECIFICATION

Code	7107-1	7107-2
Quantity of linear gages to be connected	4pcs	8pcs
Data port	RS232 and RS485	
Power supply	DC 9~24V	

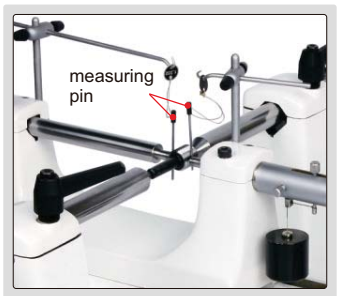
LINEAR GAGE SPECIFICATION

Code	7107-11	7107-12
Measuring range	12mm	12mm
Resolution	0.01mm	0.001mm
Accuracy	20μm	5μm
Hysteresis	10μm	2μm
Measuring principle	capacity system	
Voltage	5V	
Sampling frequency	100 times/sec.	
Working life	ten million times	
Dust/waterproof	IP65	
Measuring force	1.5N	
Cable length	2m	
Data output	RS232	

EXTERNAL THREAD MEASURING DEVICE
CODE ISQ-TE100



measure pitch diameter of thread



- Quickly measure major, pitch and minor diameters of of external thread
- Suitable for metric, inch, Whitworth, NPT and BSPT

Code	Range	Resolution	Accuracy	Repeatability
ISQ-TE100	0-100mm	0.1μm	2μm	0.5μm

OPTIONAL ACCESSORY

Measuring pin	ISQ-TE100-A
Measuring prism	ISQ-TE100-B
Female center	ISQ-TE100-C
Clamp	ISQ-TE100-D
Setting disc	ISQ-TE100-E
60° find pointer	ISQ-TE100-F
55° find pointer	ISQ-TE100-G
Display unit	7108-30
Linear gage	7108-1

Measuring pin (optional)

- To measure pitch diameter of external thread
- Each size is supplied in pair
- Hardness: 60±2HRC

Code	Pins included	Pin diameter(mm)
ISQ-TE100-A	21 pairs	0.170, 0.195, 0.220, 0.250, 0.290, 0.335, 0.390, 0.455, 0.530, 0.620, 0.725, 0.895, 1.100, 1.350, 1.650, 2.050, 2.550, 3.200, 4.000, 5.050, 6.350

Measuring prism (optional)

- To measure minor diameter of external thread
- Each size is supplied in pair

Code	Prisms included	Size
ISQ-TE100-B	4 pairs	A, B, C, D (for different types and sizes of thread)

Setting disc (optional)

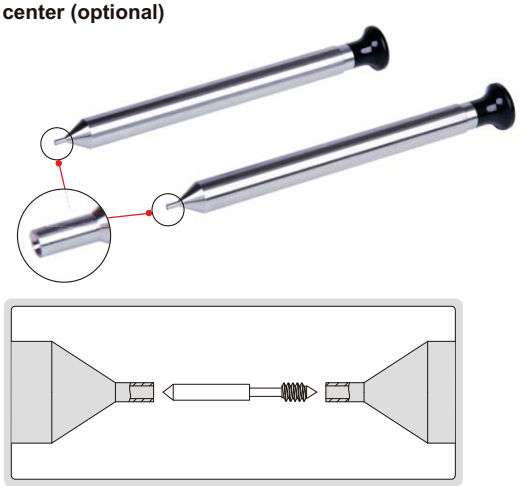
- To set initial value

Code	Discs included	Disc diameter(mm)
ISQ-TE100-E	22 pcs	3, 5, 8, 12, 16, 20, 24, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100

To be continued

Continued from previous page

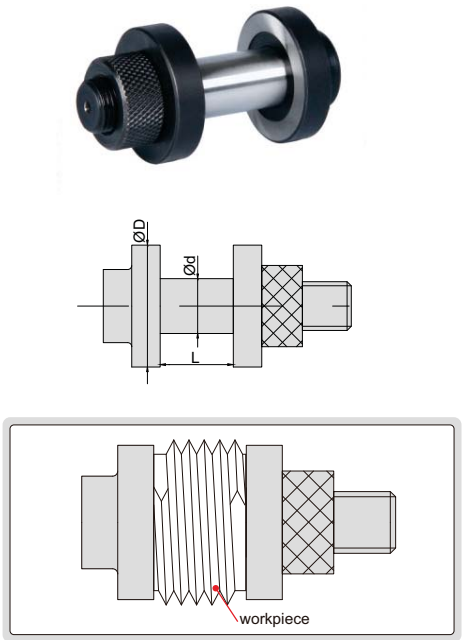
Female center (optional)



- With small holes to support small workpieces without female centers
- Supplied in pair

Code
ISQ-TE100-C

Clamp (optional)

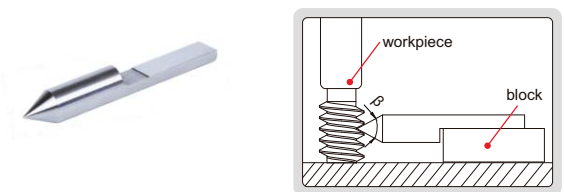


- To hold large workpieces with inner bore

(mm)

Code	Clamps included	d	D	L
ISQ-TE100-D	3 pcs	13.5	30	0-18
		23	60	0-18
		23	75	0-18

Find pointer (optional)



- To find measuring point of NPT or BSPT

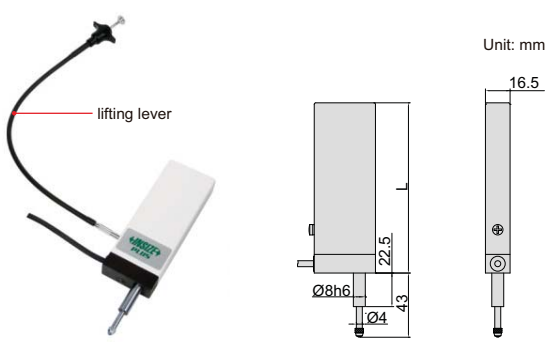
Code	Angle β	Applicable thread
ISQ-TE100-F	60°	NPT
ISQ-TE100-G	55°	BSPT

Display unit (optional)

Code	7108-1*
Display	8 digits
Character height	9mm
Dust/waterproof	IP20
Optional resolution	0.1μm

*Refer to **7108-1** (page 274) for details

Linear gage (optional)



Code	7108-30*
Measuring range	30mm
Resolution	0.01μm
Accuracy	(0.5+L/60)μm L is measuring length in mm
Dust/waterproof	IP50

*Refer to **7108-30** (page 274) for details

PROFILE PROJECTOR

Screen diameter: 300mm

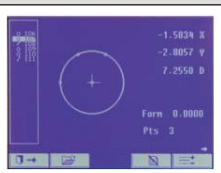
X-Y travel: 150x50mm

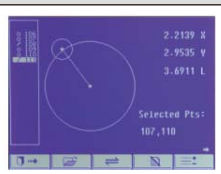
ISP-Z3015

ISP-A1000E

digital readout of **ISP-A1000E**

- touch buttons
- USB data output to Excel and CAD
- show diagram directly

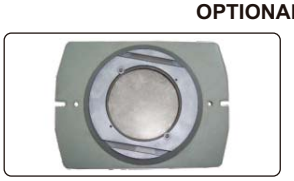




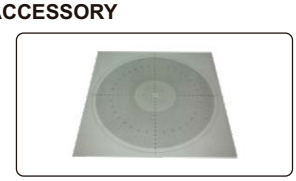
MANUFACTURER INSPECTION CERTIFICATE

OPTIONAL ACCESSORY

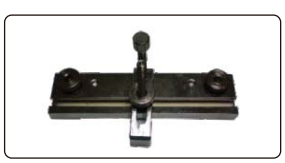
lens



rotary table
(glass plate diameter 100mm)



overlay chart (protractor with 1° graduation, radius with 1mm increment)

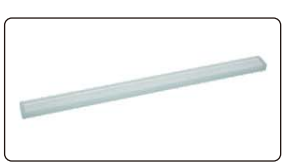


holder with clamp

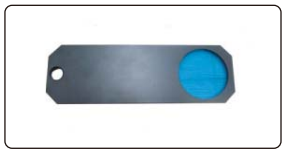
swivel center support

V-block with clamp

50mm reading scale
(check magnification accuracy)



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)



blue filter

demo sample

printer (only for **ISP-A1000E**)

To be continued

Continued from previous page

SPECIFICATION

Code		ISP-Z3015		ISP-A1000E	
Edge detector		not included		included	
Lens	magnification	10X (included)	20X (optional)	50X (optional)	100X (optional)
	view field	Ø30mm	Ø15mm	Ø6mm	Ø3mm
	working distance	77.7mm	44.3mm	38.4mm	25.3mm
Max. workpiece height		90mm	90mm	90mm	90mm
Magnification accuracy		±0.08%			
Image		erect image			
Projector screen		diameter: Ø300mm			
		rotation range: 0°~360°, resolution: 1" or 0.01°			
		reference lines: cross-hairs			
Stage	metal stage size	340×152mm			
	glass stage size	196×96mm			
	X-Y stage travel	range: 150×50mm			
		resolution: 0.5μm			
		accuracy: (4+L/25)μm L is the measuring length in mm			
	Z (focus) travel range	90mm			
	max. load capacity	4kg			
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable			
		surface illumination: 24V/150W halogen lamp			
Data processing unit	display	X-Y stage travel, screen rotation			
	output	RS232C		RS232C, USB (data output to Excel and CAD)	
	function	measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines set origin of coordinate coordinate transform set midpoint of coordinate		measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines coordinate transform choose measurement object automatically according to the selective point and display the result	
	advanced function	—		Programming for batch measurements	
Power supply		110/220V, 50/60Hz			
Dimension (L×W×H)		550×770×1100mm			
Weight		135kg			

STANDARD DELIVERY

Main unit	1pc
10X lens with half-reflection mirror and oblique illuminator mirror	1pc
Overlay chart clip	4pcs
Foot-switch	1pc
Anti-dust cover	1pc
USB cable and software (only for ISP-A1000E)	1pc

OPTIONAL ACCESSORY

20X lens with half-reflectionmirror and oblique illuminator mirror	ISP-Z3015-LENS20X
50X lens with half-reflection mirror	ISP-Z3015-LENS50X
100X lens with half-reflection mirror	ISP-Z3015-LENS100X
Rotary table	ISP-Z3015-TABLE
Overlay chart	ISP-Z3015-CHART
Holder with clamp	ISP-Z3015-HOLDER

Swivel center support	ISP-Z3015-SUPPORT
V-block with clamp	ISP-Z3015-VBLOCK
50mm reading scale	ISP-Z3015-SCALE50
300mm calibration scale	ISP-Z3015-RULE
Blue filter	ISP-Z3015-FILTER
Demo sample	ISP-Z3015-DEMO
Printer (only for ISP-A1000E)	ISP-A1000-PRINTER

PROFILE PROJECTOR

Screen diameter: 300mm

X-Y travel: 200x100mm

ISP-AZ3020

ISP-A5000E

MANUFACTURER INSPECTION CERTIFICATE

- Adjust the focus by ascending and descending the projector head, the stage doesn't move up and down
- Maximum workpiece weight 50kg

digital readout of **ISP-A5000E**

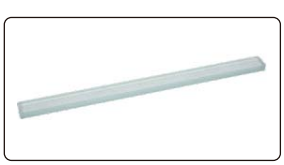
- touch buttons
- USB data output to Excel and CAD
- show diagram directly

OPTIONAL ACCESSORY

lens

overlay chart (protractor with 1° graduation, radius with 1mm increment)

50mm reading scale (check magnification accuracy)



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)

demo sample

printer (only for **ISP-A5000E**)

To be continued

Continued from previous page

SPECIFICATION

Code		ISP-AZ3020		ISP-A5000E	
Edge detector		not included		included	
Lens	magnification	10X (included)	20X (optional)	50X (optional)	100X (optional)
	view field	Ø30mm	Ø15mm	Ø6mm	Ø3mm
	working distance	77.7mm	44.3mm	38.4mm	25.3mm
Max. workpiece height		100mm	100mm	100mm	100mm
Magnification accuracy		±0.08%			
Image		erect image			
Projector screen		diameter: Ø300mm			
		rotation range: 0°~360°, resolution: 1' or 0.01°			
		reference lines: cross-hairs			
Stage	metal stage size	404×228mm			
	glass stage size	260×160mm			
	X-Y stage travel	range: 200×100mm			
		resolution: 0.5μm			
		accuracy: (3+L/75)μm L is the measuring length in mm			
	Z(focus) travel range	100mm			
	max. load capacity	50kg			
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable			
		surface illumination: 24V/150W halogen lamp, brightness is adjustable			
Data processing unit	display	X-Y stage travel, screen rotation			
	output	RS232C		RS232C, USB (data output to Excel and CAD)	
	function	measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines set origin of coordinate coordinate transform set midpoint of coordinate		measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines coordinate transform choose measurement object automatically according to the selective point and display the result	
	advanced function	—		Programming for batch measurements	
Power supply		110/220V, 50/60Hz			
Dimension (L×W×H)		780×780×1100mm			
Weight		160kg			

STANDARD DELIVERY

Main unit	1pc
10X lens with half-reflection mirror and oblique illuminator mirror	1pc
Overlay chart clip	4pcs
Foot-switch	1pc
Anti-dust cover	1pc
USB cable and software (only for ISP-A5000E)	1pc

OPTIONAL ACCESSORY

20X lens with half-reflection mirror and oblique illuminator mirror	ISP-A5000-LENS20X
50X lens with half-reflection mirror	ISP-A5000-LENS50X
100X lens with half-reflection mirror	ISP-A5000-LENS100X
Overlay chart	ISP-A5000-CHART

50mm reading scale	ISP-A5000-SCALE50
300mm calibration scale	ISP-A5000-RULE
Demo sample	ISP-A5000-DEMO
Printer (only for ISP-A5000E)	ISP-A5000-PRINTER

HORIZONTAL PROFILE PROJECTOR

Screen diameter: 300mm

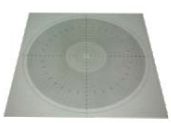
X-Z travel: 200x100mm

ISP-W3020

ISP-A3000E

OPTIONAL ACCESSORY

lens



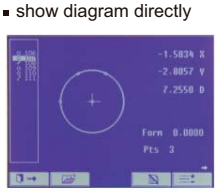
overlay chart (protractor with 1° graduation, radius with 1mm increment)

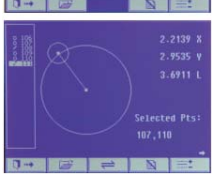
50mm reading scale (check magnification accuracy)

MANUFACTURER INSPECTION CERTIFICATE

digital readout of **ISP-A3000E**

- touch buttons
- USB data output to Excel and CAD
- show diagram directly





demo sample

V-block with clamp

rotary table

300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)

vise

printer (only for **ISP-A3000E**)

To be continued

Continued from previous page

SPECIFICATION

Code		ISP-W3020		ISP-A3000E	
Edge detector		not included		included	
Lens	magnification	10X (included)	20X (optional)	50X (optional)	100X (optional)
	view field	Ø30mm	Ø15mm	Ø6mm	Ø3mm
	working distance	77.7mm	44.3mm	38.4mm	25.3mm
Magnification accuracy		±0.08%			
Projector screen		diameter: Ø300mm			
		rotation range: 0°~360°, resolution: 1' or 0.01°			
		reference lines: cross-hairs			
Stage	metal stage size	400×150mm			
	turning range	±15°			
	X-Z stage travel	range: 200×100mm			
		resolution: 0.5μm			
		accuracy: (4+L/25)μm L is the measuring length in mm			
	Y (focus) travel range	75mm			
	max. load capacity	50kg			
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable			
		surface illumination: 12V/150W halogen lamp(with 2 fibers), position is adjustable			
Data processing unit	display	X-Z stage travel, screen rotation			
	output	RS232C		RS232C, USB (data output to Excel and CAD)	
	function	measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines set origin of coordinate coordinate transform set midpoint of coordinate		measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines coordinate transform choose measurement object automatically according to the selective point and display the result	
	advanced function	—		Programming for batch measurements	
Power supply		110/220V, 50/60Hz			
Dimension (L×W×H)		1090×830×1010mm			
Weight		160kg			

STANDARD DELIVERY

Main unit	1pc
10X lens	1pc
Overlay chart clip	4pcs
Foot-switch	1pc
Anti-dust cover	1pc
USB cable and software (only for ISP-A3000E)	1pc

OPTIONAL ACCESSORY

20X lens	ISP-A3000-LENS20X
50X lens	ISP-A3000-LENS50X
100X lens	ISP-A3000-LENS100X
Overlay chart	ISP-A3000-CHART
50mm reading scale	ISP-A3000-SCALE50
300mm calibration scale	ISP-A3000-RULE

Demo sample	ISP-A3000-DEMO
V-block with clamp	ISP-A1000-VBLOCK
Rotary table	ISP-A3000-RTABLE
Vice	ISP-A3000-VISE
Printer (only for ISP-A3000E)	ISP-A3000-PRINTER

HORIZONTAL PROFILE PROJECTOR

Screen diameter: 400mm

X-Z travel: 250x150mm

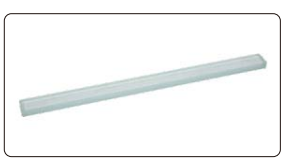
ISP-W4025

ISP-A7000E

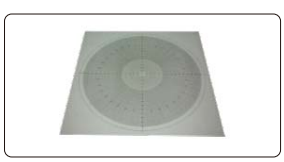
OPTIONAL ACCESSORY

lens

50mm reading scale
(check magnification accuracy)



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)

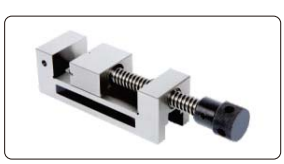


Ø300mm overlay chart (protractor with 1° graduation,radius with 1mm increment)

demo sample (need rotary table)

V-block with clamp

rotary table



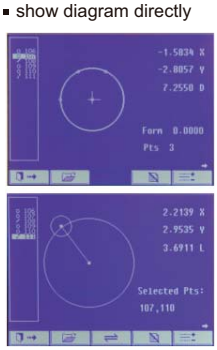
vise

printer (only for **ISP-A7000E**)

INSIZE MANUFACTURER INSPECTION CERTIFICATE

digital readout of **ISP-A7000E**

- touch buttons
- USB data output to Excel and CAD
- show diagram directly



To be continued

Continued from previous page

SPECIFICATION

Code		**ISP-W4025**			**ISP-A7000E**	
Edge detector		not included			included	
Lens	**magnification**	5X (optional)	10X (standard)	20X (optional)	50X (optional)	100X (optional)
	view field	Ø80mm	Ø40mm	Ø20mm	Ø8mm	Ø4mm
	working distance	93.7mm	103.9mm	95.1mm	65.7mm	35mm
Magnification accuracy		±0.08%				
Image		erect image				
Projector screen		diameter: Ø400mm				
		rotation range: 0°~360°, resolution: 1' or 0.01°				
		reference lines: cross-hairs				
Stage	**metal stage size**	450×200mm				
	turning range	±15°				
	X-Z stage travel	range: 250×150mm				
		resolution: 0.5μm				
		accuracy: (4+L/25)μm L is the measuring length in mm				
	Y (focus) travel range	100mm				
	max. load capacity	50kg				
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable				
		surface illumination: 12V/150W halogen lamp(with 2 fibers), position is adjustable				
Data processing unit	**display**	X-Z stage travel, screen rotation				
	output	RS232C			RS232C, USB (data output to Excel and CAD)	
	function	measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines set origin of coordinate coordinate transform set midpoint of coordinate			measure coordinate of point measure coordinate of line measure center coordinate, radius of circle with three points measure distance between two objects measure angle with four points or two lines coordinate transform choose measurement object automatically according to the selective point and display the result	
		—			Programming for batch measurements	
Power supply		110/220V, 50/60Hz				
Dimension (L×W×H)		1215×646×1210mm				
Weight		240kg				

STANDARD DELIVERY

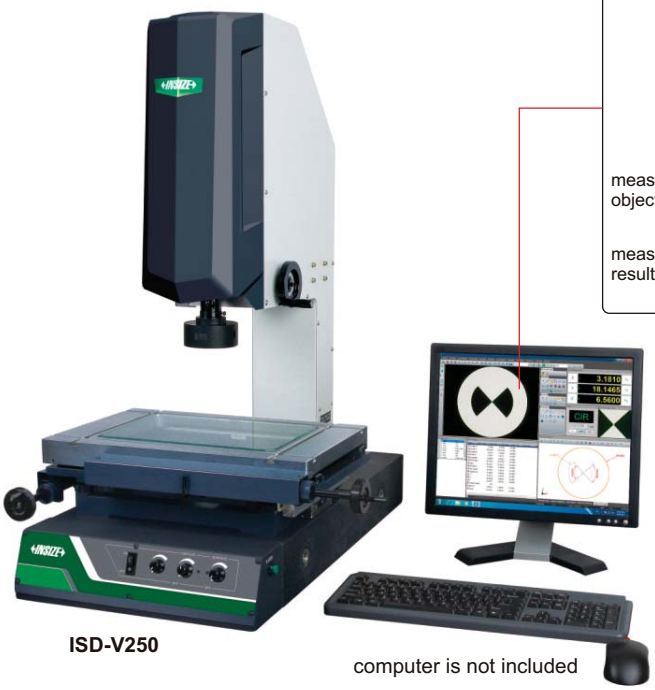
Main unit	1pc
10X lens	1pc
Overlay chart clip	4pcs
Foot-switch	1pc
Anti-dust cover	1pc
USB cable and software (only for ISP-A7000E)	1pc

OPTIONAL ACCESSORY

5X lens	**ISP-W4025-LENS5X**
20X lens	**ISP-W4025-LENS20X**
50X lens	**ISP-W4025-LENS50X**
100X lens	**ISP-W4025-LENS100X**
Ø300mm overlay chart	**ISP-A3000-CHART**
50mm reading scale	**ISP-A3000-SCALE50**

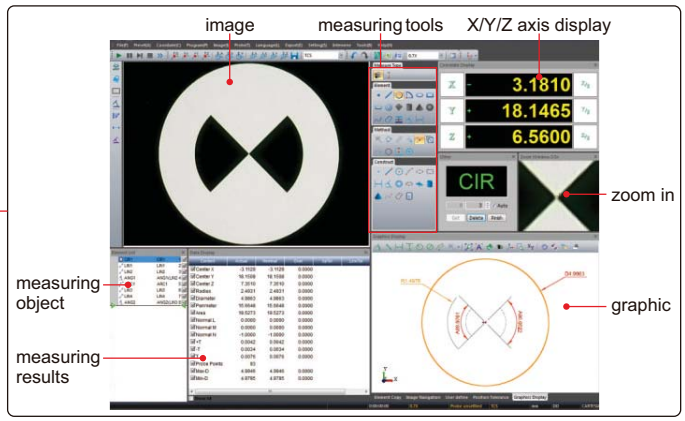
300mm calibration scale	**ISP-A3000-RULE**
Demo sample	**ISP-A3000-DEMO**
V-block with clamp	**ISP-A1000-VBLOCK**
Rotary table	**ISP-A3000-RTABLE**
Vice	**ISP-A3000-VISE**
Printer (only for ISP-A7000E)	**ISP-A3000-PRINTER**

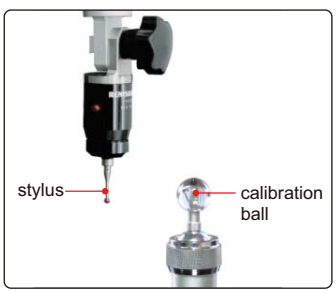
VISION MEASURING SYSTEM



ISD-V250

computer is not included





probe (optional), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10μm

lens with coaxial light (optional, must be mounted in factory)

SPECIFICATION

Code	ISD-V150	ISD-V250	ISD-V300
Measuring range (X×Y×Z)	150×100×200mm	250×150×200mm	300×200×200mm
Stage size	354×228mm	450×280mm	500×330mm
Stage glass size	210×160mm	306×196mm	350×250mm
Resolution of X/Y/Z axis	0.5μm		
Accuracy of X/Y axis	≤(2.5+L/100)μm (L is the measuring length in mm)		
Repeatability of X/Y axis	2μm		
Objective	0.7X ~ 4.5X (zoom)		
Working distance	92mm		
Magnification	33X ~ 195X (on 19" monitor)		
Camera	1/3" color CCD, 1.5M pixel		
Illumination	surface and contour with adjustable LED		
Max. height of workpiece	160mm		
Max. weight of workpiece	20kg		
Operation system	Windows 7		
Drive method	manual		
Power supply	110/220V, 50/60Hz		
Dimension(L×W×H)	560×540×850mm	760×600×900mm	760×600×900mm
Weight	100kg	120kg	140kg

STANDARD DELIVERY

Main unit	1pc
Video card with dongle	1pc
Software disc	1pc
Calibration glass chart	1pc
Laser positioner	1pc
Clay	1pc
Foot switch	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

0.5X auxiliary objective	Code: **ISD-V-OB05X** Working distance: 175mm Magnification: 16.5 ~ 97.5X (on 19" monitor)
2X auxiliary objective	Code: **ISD-V-OB02X** Working distance: 36mm Magnification: 66 ~ 390X (on 19" monitor)
Probe	Code: **ISD-V-PROBE** Includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Lens with coaxial light	Code: **ISD-V-LENS** (must be mounted in factory)

To be continued

Continued from previous page

SOFTWARE

- **Operation system:** Windows 7
- **Language:** English
- **Single measuring tools:**

measure coordinate of point

measure distance between two points

measure center coordinate and axis length of ellipse

measure length, width and diameter of key slot

measure length of open curve

measure focus distance of surface

measure angle of two lines

measure center coordinate, diameter and area of circle

measure length and diameter of arc

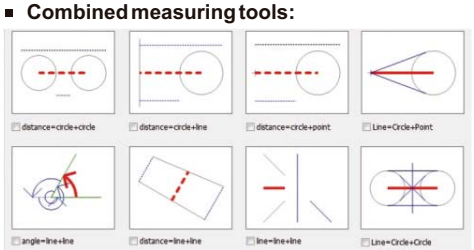
measure length, width and area of rectangle

measure width and diameter of ring

measure length and area of close curve

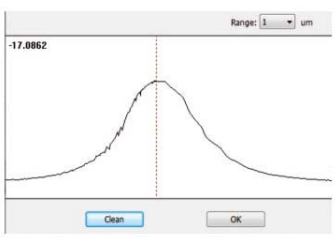
measure distance of two elements

- **Combined measuring tools:**

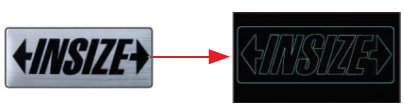


measure distance and angle of two elements

- **Focus indicator:**

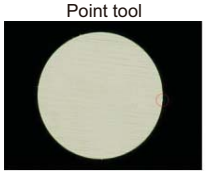


- **Profile detection:**

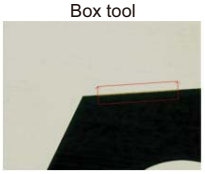


- **Edge-detection:**

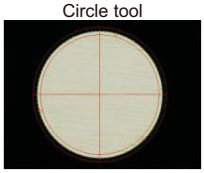
Point tool



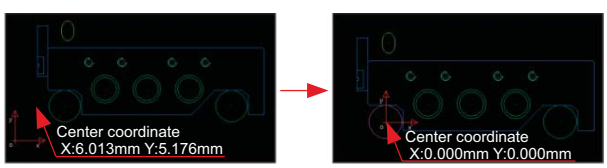
Box tool



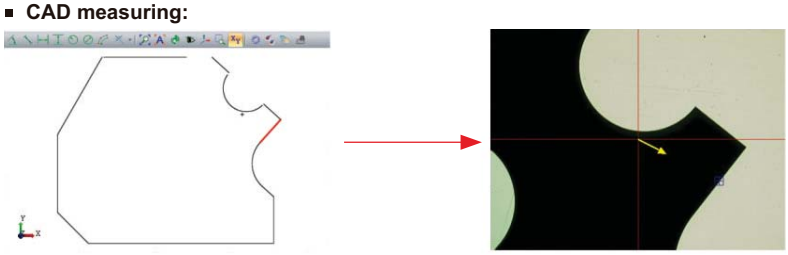
Circle tool



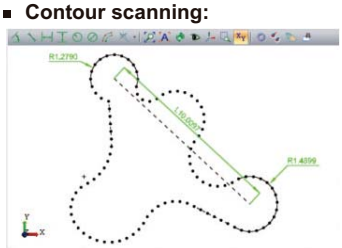
- **Coordinate transfer:**



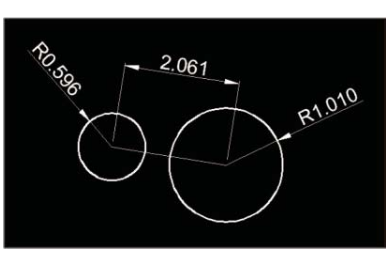
- **CAD measuring:**


Input CAD drawing and set reference, then move the stage to make the target box in the center of crosshair, the software will do automatic measurement

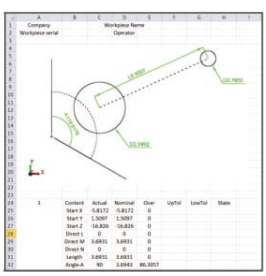
- **Contour scanning:**

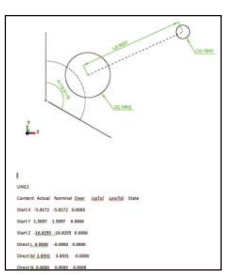


- **Data export to CAD, EXCEL and WORD**

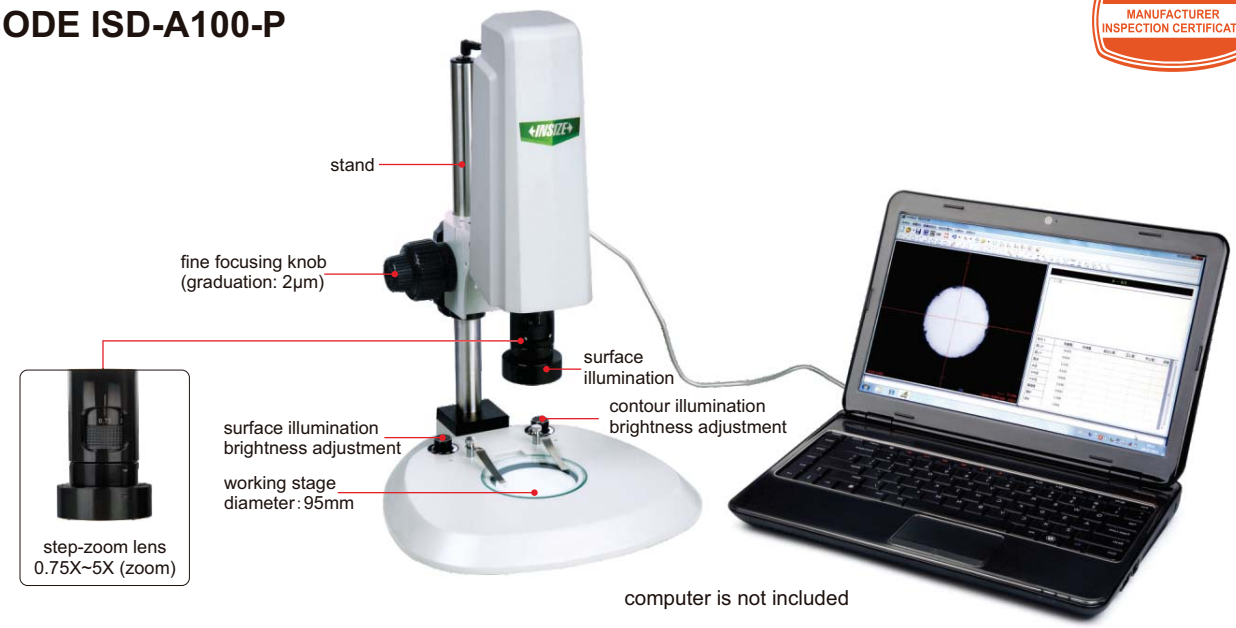


CAD


EXCEL


WORD

VISION MEASURING SYSTEM
CODE ISD-A100-P



- Measures small workpiece (less than 15mm) easily and accurately

calibration block (included)

X-Y stage (included)

SPECIFICATION

Objective	0.75X~5X (zoom)	
Auxiliary objective	1X (included)	0.5X (included)
Focus distance	82mm	175mm
View field (diagonal length)	1.15mm~7.5mm	2.3mm~15mm
Magnification (19" widescreen display)	44X~280X	22X~140X
Camera	CMOS (color)	
Resolution (pixel)	1280×1024 (1.3M)	
Output	USB2.0	
Accuracy	4μm	
Repeatability	2μm	
Illumination	surface: adjustable ring LED	contour: adjustable LED
Power supply *	220V, 50/60Hz	
Demension (L×W×H)	300×350×450mm	
Weight	2.8kg	

*Add "**-U**" on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

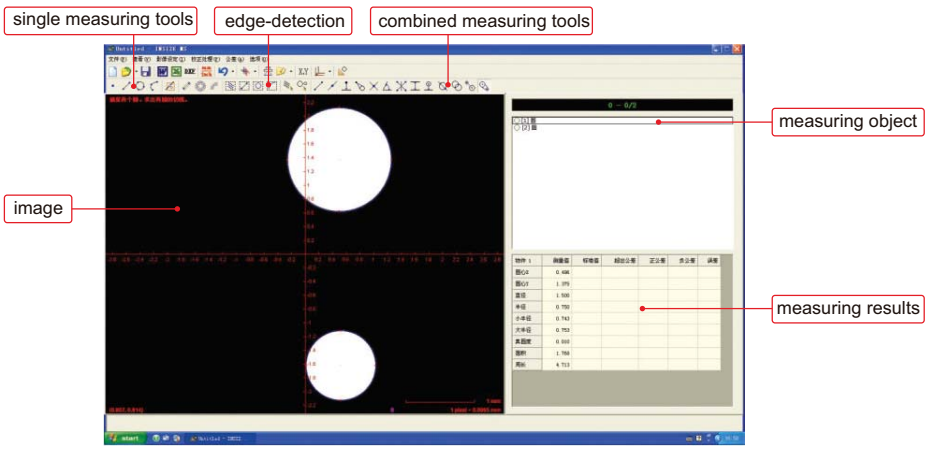
Main unit	1pc
Software disc	1pc
X-Y stage (travel: 74×60mm)	1pc
Calibration block	1pc
0.5X auxiliary objective	1pc

1X auxiliary objective	1pc
Ø95mm glass plate	1pc
Ø95mm white/black plate	1pc
Anti-dust cover	1pc

To be continued

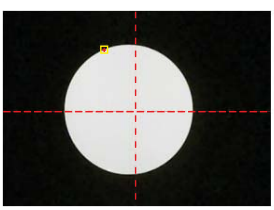
Continued from previous page

SOFTWARE

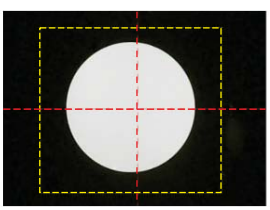


- **Operation system:** Windows 7/XP, screen resolution is 1366×768
- **Language:** English, Chinese
- **Output to CAD, EXCEL and WORD**
- **Input CAD, to compare with workpieces**
- coordinate transform
- **Focus indicator**:
  fast and accurately find the focus distance, eliminate the visual error
- **Single measuring tools:**
  - measure coordinate of point
  - measure length of line
  - measure center coordinate, radius, diameter and area of circle
  - measure length and diameter of arc
- **Combined measuring tools:**
  - measure distance between two points
  - find midpoint of a line
  - measure distance from point to line
  - find tangent lines between point and circle
  - measure intersection point between two lines
  - measure angle between two lines
  - find angular bisector between two lines
  - measure distance between two lines
  - measure distance from circle to line
  - find intersection points between circle and line
  - find intersection points between two circles
  - measure distance between two circles
  - find tangent lines between two circles
- **Edge-detection:**

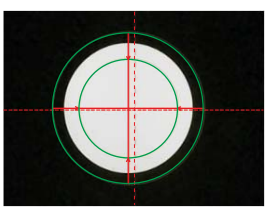
Point tool



Box tool



Circle tool



WiFi DIGITAL MEASURING MICROSCOPE
CODE ISM-WF200

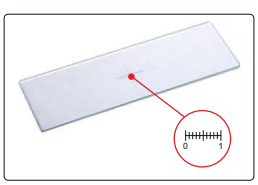
connected to iPad by WiFi

connected to computer by WiFi

connected to computer by USB cable

STAND (code: **ISM-WSTD**, optional)

calibration rule (graduation 1mm)


calibration rule (graduation 0.1mm)

- Maximum working distance is 5m under WiFi mode
- Can be connected to multiple iPads or computers at the same time under WiFi mode
- Can take pictures and videos
- Supplied with software

SPECIFICATION

Magnification	10X~200X
Pixel	1.3M (resolution: 1280×1024)
Illumination	built-in adjustable LED
Power supply	built-in rechargeable battery

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1×6.4mm	30μm
100X	13mm	3.9×3.1mm	15μm
150X	16mm	2.6×2.1mm	10μm
200X	19mm	1.8×1.5mm	8μm

STANDARD DELIVERY

Microscope	1pc
Base support	1pc
Focus support ring for 80X/150X	1pc
Focus support ring for 60X/200X	1pc
Calibration rule (graduation 0.1mm)	1pc
Calibration rule (graduation 1mm)	1pc
USB cable and software	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Stand	**ISM-WSTD**

To be continued

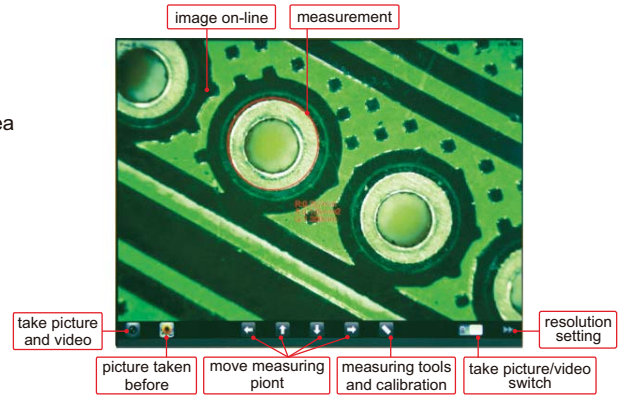
❶ Software ISM-PAD (for iPad by WiFi)

- **Measuring tools:**

measure length of line or distance between two points

measure radius, girth and area of circle with three points

measure angle



❷ Software ISM-WF Partner (for computer by WiFi)

- **Measuring tools:**

measure length of line or distance between two points

measure radius, girth and area of circle with three points

measure area of polygon

measure angle with two lines

measure distance between point and line

measure radius, girth and area of circle with two points

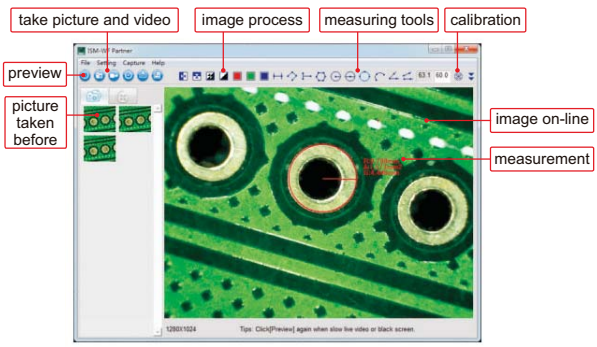
measure radius, length and angle of arc

measure angle with three points

measure area of rectangle

measure radius, girth and area of circle with center point

measure length of continuous line



❸ Software ISM-PRO (for computer by USB cable)

- **Measuring tools:**

measure length of line or distance between two points

measure distance between point and line

measure area of rectangle

measure length of continuous line

measure radius, length and angle of arc

measure angle with three points

measure distance between two circles

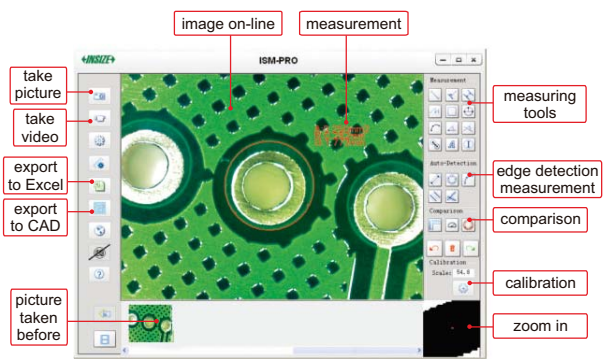
add text

measure distance between two parallel lines

measure radius, girth and area of circle

measure angle with two lines

add number with circle



- **Edge detection measurement:**

detect line automatically, and calculate length

detect circle automatically, and calculate radius, girth and area

detect two lines automatically, and calculate angle

detect arc automatically, and calculate radius, angle and arc length

detect two parallel lines automatically and calculate distance

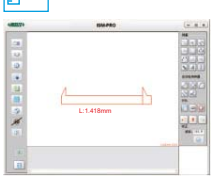
- **Comparison:**

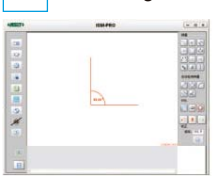
Create line, angle or circle with desired size, to compare with workpieces

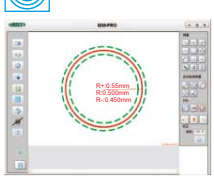
create line

create angle

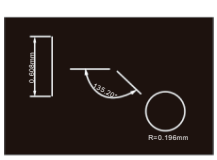
create circle with tolerance

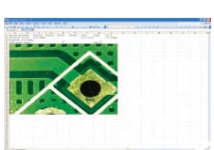






- **Data export to CAD or Excel:**





DIGITAL MEASURING MICROSCOPE

- Can take pictures and videos
- Supplied with software

SPECIFICATION

Code	ISM-PM200SB	ISM-PM600SB	ISM-PM160LA
Magnification	10X~200X	450X~600X	35X~160X
Type	short focus distance	short focus distance	long focus distance
Focus support	included	not included	not included
Calibration rule	graduation 0.1and1mm	graduation 0.1mm	graduation 0.1 and 1mm
Pixel	2M (resolution: 1600×1200)		
Ilumination	built-in adjustable LED		
Power supply	USB 2.0 cable (voltage required: 5±0.1V)		

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

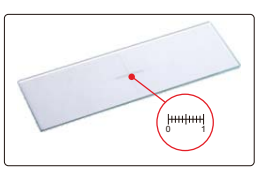
ISM-PM200SB			
Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1×6.4mm	30μm
100X	13mm	3.9×3.1mm	15μm
150X	16mm	2.6×2.1mm	10μm
200X	19mm	1.8×1.5mm	8μm

ISM-PM600SB			
Magnification	Focus distance	View field	Accuracy
450X	1.4mm	0.85×0.67mm	6μm
500X	5.5mm	0.76×0.61mm	6μm
550X	8.6mm	0.69×0.55mm	5μm
600X	11.5mm	0.63×0.51mm	5μm

ISM-PM160LA			
Magnification	Focus distance	View field	Accuracy
50X	62mm	8.1×6.4mm	30μm
100X	45mm	3.9×3.1mm	15μm
160X	50mm	2.4×1.9mm	10μm

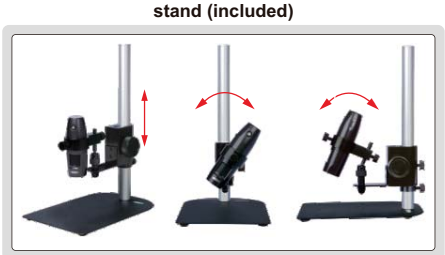
focus support

calibration rule (graduation 1mm)


calibration rule (graduation 0.1mm)

put the digital microscope directly on the workpiece for inspection and measurement

stand (included)



To be continued

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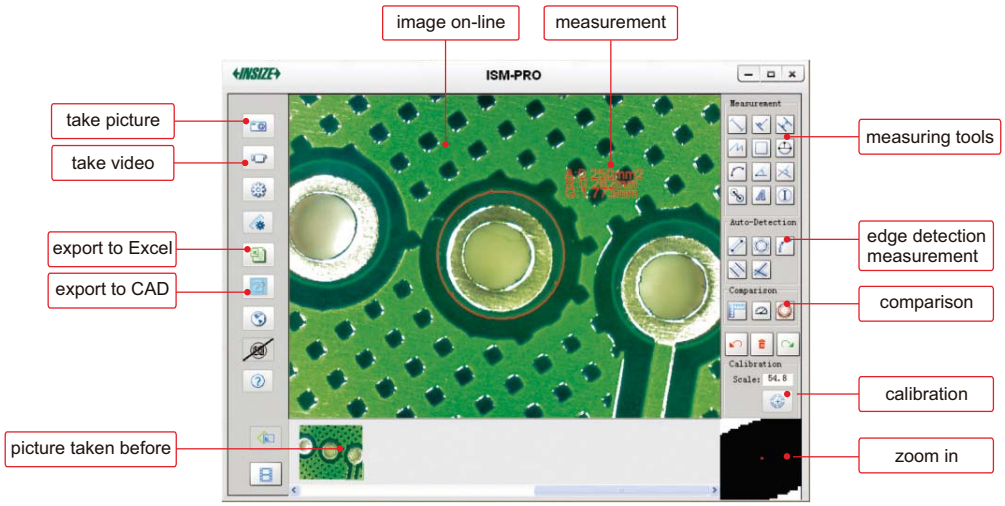
SOFTWARE



- **Language**: English, Japanese, Korean, German, Turkey, Portuguese, Chinese
- **Operation system**: Windows 7/8/XP/ Vista
- **Measuring tools:**

measure length of line or distance between two points
measure distance between point and line
measure distance between two parallel lines
measure length of continuous line
measure area of rectangle
measure radius, girth and area of circle
measure radius, length and angle of arc
measure angle with three points
measure angle with two lines
measure distance between two circles
add text
add number with circle

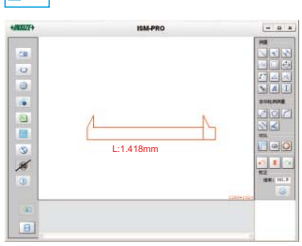
- **Edge detection measurement:**

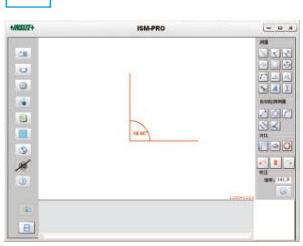
detect line automatically, and calculate length
detect circle automatically, and calculate radius, girth and area
detect arc automatically, and calculate radius, angle and arc length
detect two parallel lines automatically and calculate distance
detect two lines automatically, and calculate angle

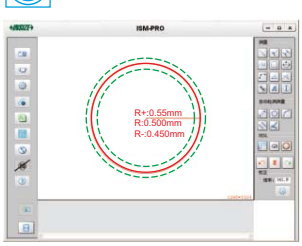
- **Comparison:**

Create line, angle or circle with desired size, to compare with workpieces.

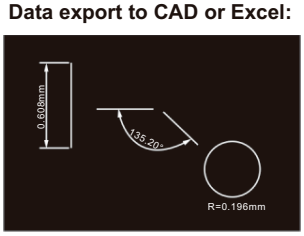
create line
create angle
create circle with tolerance

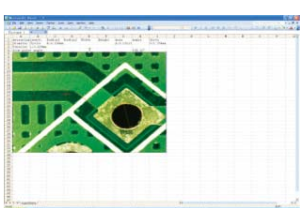






- **Data export to CAD or Excel:**





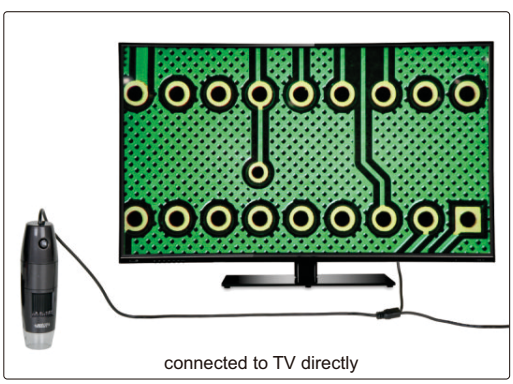
TV DIGITAL MICROSCOPE

ISM-TV200 (with wire)

ISM-TV200W (wireless)

STAND (code: **ISM-WSTD**, optional)

- Connected to TV directly
- For observation, cannot take pictures and videos



connected to TV directly

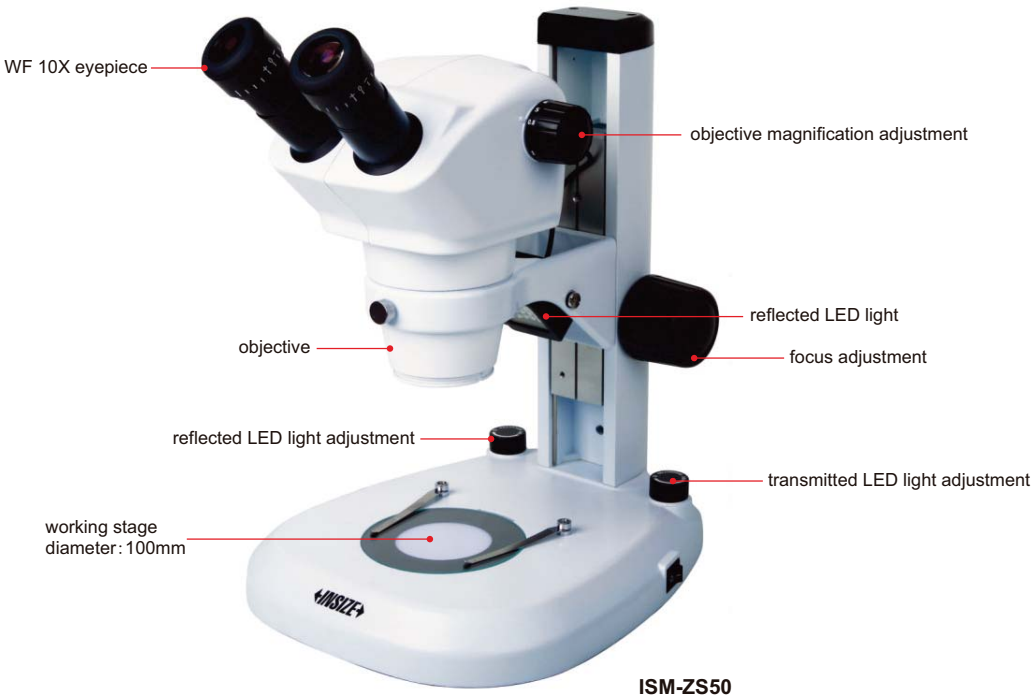
SPECIFICATION

Code	ISM-TV200	ISM-TV200W
Type	with wire	wireless (maximum transmission distance 5m)
Magnification	10X~200X (on 17" TV)	
Pixel	0.35M	
Illumination	adjustable brightness LED	
Focus	supplied with focus ring, stand (**ISM-WSTD**) is optional	
Power supply	DC	built-in rechargeable battery

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD

ISM-TV200			ISM-TV200W		
Magnification	Focus distance	View field	Magnification	Focus distance	View field
50X	21mm	8.1×6.4mm	60X	19mm	6.9×5.2mm
100X	13mm	3.9×3.1mm	80X	16mm	5.0×3.8mm
150X	16mm	2.6×2.1mm	150X	16mm	2.6×2.1mm
200X	19mm	1.8×1.5mm	200X	19mm	1.8×1.5mm

ZOOM STEREO MICROSCOPE



ISM-ZS50

SPECIFICATION

Code	ISM-ZS50	ISM-ZS50T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)	
Objective	0.8X~5X (zoom)	
Zoom ratio	1:6.3	
Pupil distance	55~75mm (adjustable)	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	215mm	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60Hz	
Dimension (L×W×H)	290×260×480mm	
Weight	4.9kg	

STANDARD DELIVERY

Main unit	1pc
WF 10X eyepiece	2pcs
Ø100mm glass plate	1pc
Ø100mm white/black plate	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
Digital camera		ISM-D500

ZOOM STEREO MICROSCOPE

SPECIFICATION

Code	**ISM-ZS30**
Optical tube	binocular
Eyepiece (wide field)	10X (view field: Ø20mm)
Objective	1X~4.5X (zoom)
Zoom ratio	1:4.5
Pupil distance	55~75mm (adjustable)
Diopter adjustment	±5 diopter (two eyepieces)
Working distance of objective	97mm
Max. workpiece height	147mm
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	260×190×400mm
Weight	4.3kg

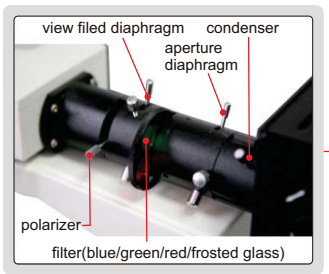
STANDARD DELIVERY

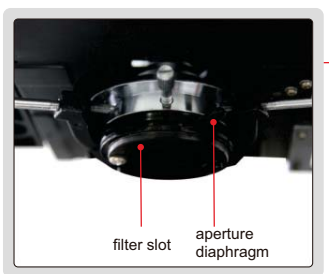
Main unit	1pc
WF 10X eyepiece	2pcs
Ø95mm glass plate	1pc
Ø95mm white/black plate	1pc
Anti-dust cover	1pc

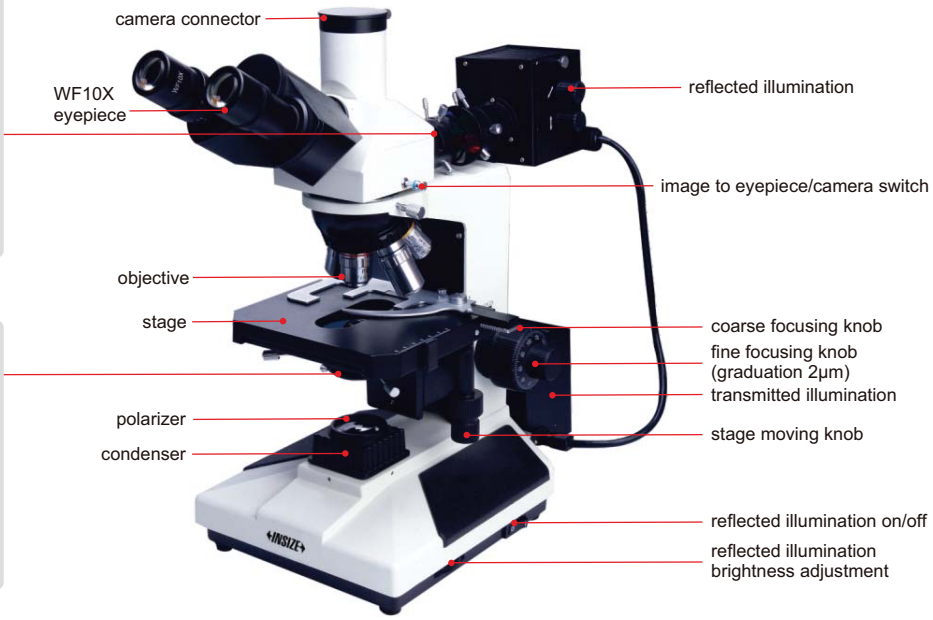
OPTIONAL ACCESSORY

Auxiliary objective	**0.5X**	**ISM-ZS30-OB05X**
	0.63X	**ISM-ZS30-OB06X**
	0.75X	**ISM-ZS30-OB07X**
	2X	**ISM-ZS30-OB2X**
Eyepiece	**10X dividing eyepiece (0.1mm/div.)**	**ISM-ZS30-EPD10X**
	WF15X (view field: Ø16mm)	**ISM-ZS50-EP15X**
	WF20X (view field: Ø12mm)	**ISM-ZS50-EP20X**
Digital camera		**ISM-D500**

HIGH MAGNIFICATION MICROSCOPE
CODE ISM-M600-P







- For high magnification observation
- Reflected and transmitted illumination can work at the same time
- Objectives 40X, 60X are spring type

SPECIFICATION

Eyepiece (wide field)	10X (view field: Ø18mm)				
Objective (plan achromatic)	5X	10X	20X	40X	60X
Numerical aperture	0.12	0.25	0.40	0.60	0.75
Working distance	18.4mm	8.8mm	8.6mm	3.7mm	1.34mm
Stage	double layer with sample clamp				
	size: 160×140mm				
	travel: 75×50mm (graduation: 0.1mm)				
Pupil distance	53~75mm				
Diopter adjustment	±5 diopter (one eyepiece)				
Illumination	reflected and transmitted: 6V/20W halogen lamp, brightness is adjustable				
Power supply *	220V, 50/60Hz				
Dimension (L×W×H)	450×300×350mm				
Weight	11kg				

*Add "**-U**" on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

Main unit	1pc
Anti-dust cover	1pc
Filter (blue/green/frosted glass)	1pc of each

OPTIONAL ACCESSORY

Objective	**PL80X**	**ISM-MTM-OB80X**
	PL100X (dry type)	**ISM-MTM-OB100X**
10X dividing eyepiece (0.1mm/div.)		**ISM-MTM-EPD10X**
WF16X eyepiece		**ISM-MTM-EP16X**

WF20X eyepiece	**ISM-MTM-EP20X**
Camera adapter (1X)	**ISM-M600-ADAPTER**
Digital camera	**ISM-D500**

HIGH MAGNIFICATION MICROSCOPE
CODE ISM-M1000

- For high magnification observation
- Kohler illumination system provides uniform illumination field
- Objectives 20X, 40X, 100X are spring type

SPECIFICATION

Eyepiece (wide field)	10X (view field: Ø18mm)			
Objective (plan achromatic)	10X	20X	40X	100X (oil type)
Numerical aperture	0.25	0.40	0.60	1.25
Working distance	8.8mm	8.6mm	3.3mm	0.33mm
Stage	double layer			
	size: 180×150mm			
	travel: 15×15mm			
Pupil distance	53~75mm			
Diopter adjustment	±5 diopter (one eyepiece)			
Illumination	6V/20W halogen lamp			
Power supply *	220V, 50/60Hz			
Dimension (L×W×H)	385×300×440mm			
Weight	11kg			

*Add "**-U**" on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

Main unit	1pc
Oil for 100X objective	1 bottle
Anti-dust cover	1pc
Filter (blue/green/yellow)	1pc of each

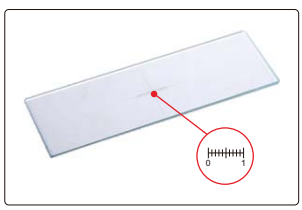
OPTIONAL ACCESSORY

Objective	**PL50X**	**ISM-MTM-OB50X**
	PL60X	**ISM-MTM-OB60X**
	PL80X	**ISM-MTM-OB80X**
	PL100X (dry type)	**ISM-MTM-OB100X**
10X dividing eyepiece (0.1mm/div.)		**ISM-MTM-EPD10X**

WF16X eyepiece	**ISM-MTM-EP16X**
WF20X eyepiece	**ISM-MTM-EP20X**
Camera adapter (1X)	**ISM-M1000-ADAPTER**
Digital camera	**ISM-D500**

DIGITAL CAMERA
CODE ISM-D500

connector Ø23.2/Ø30mm



calibration rule (graduation 0.1mm)

- Inserted into eyepiece tube or camera connecter of microscopes
- Supplied with software

SPECIFICATION

Sensor	1/2.5" CMOS
Pixel	5M
Resolution	2592×1944 or 1296×972
Frame rate	3fps (2592×1944)
	12fps (1296×972)
Exposure	manual or auto, exposure time is adjustable
SNR	41dB
Power supply	USB
Weight	400g

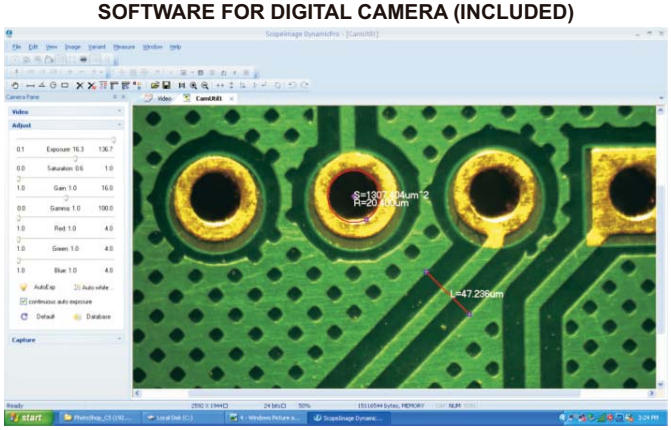
STANDARD DELIVERY

Main unit	1pc
Adapter 0.45X	1pc
Calibration rule (graduation 0.1mm)	1pc
Connector Ø23.2/Ø30mm	1pc
USB cable	1pc
Software disc	1pc

OPTIONAL ACCESSORY

Connector Ø23.2/Ø30.5mm	**ISM-DCA-CON**

SOFTWARE FOR DIGITAL CAMERA (INCLUDED)



Measuring Tools:

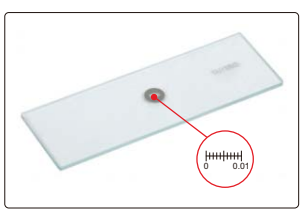
- measure distance between two points
- measure angle with three points
- measure circle
- measure rectangle
- calibration

- Can take pictures and videos
- Exposure/gain/gamma/saturation/colour adjustment
- Image process feature: zoom in/out, image flip and so on

METALLURGICAL MICROSCOPE
CODE ISM-M2000

- For high magnification observation and metallurgical image analysis
- Infinite optical system, can add optical accessories like polarizer, analyzer, DIC(code ISM-M2000-DIC) into optical path without image quality influence
- Objective can be used in both bright field and dark field
- Kohler illumination system provides uniform illumination field
- Three working modes: 100% eyepiece observation, 100% camera observation, both eyepiece and camera observation (80% illuminance for camera and 20% illuminance for eyepiece)

adapter 0.5X (included)



calibration rule (graduation 0.01mm)

SPECIFICATION

Eyepiece (wide field)	10X (view field: Ø22mm)				
Objective (plan achromatic)	5X (included)	10X (included)	20X (included)	50X (included)	100X (included)
Numerical aperture	0.12	0.25	0.40	0.75	0.90
Working distance	10mm	10mm	5mm	1.3mm	0.7mm
Stage	double layer, size: 160×140mm, travel: 75×50mm (graduation: 0.1mm)				
Kohler illumination	12V/50W halogen lamp, brightness is adjustable with polarizer and analyzer, built-in green, yellow, blue, gray and frosted glass				
Pupil distance	48 ~ 75mm				
Diopter adjustment	±5 diopter (two eyepieces)				
Power supply	110/220V, 50/60Hz				
Dimension (L×W×H)	647×268×376mm				
Weight	12kg				

STANDARD DELIVERY

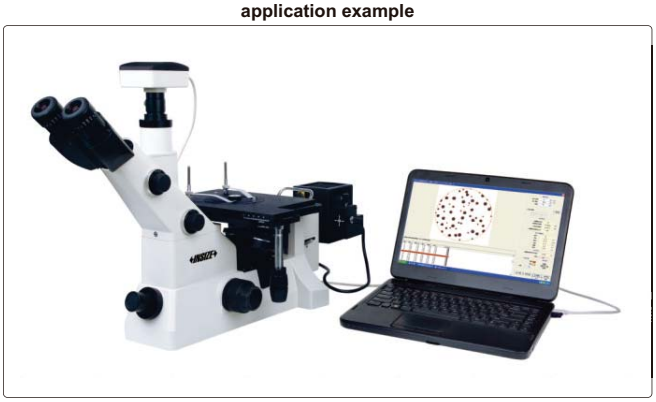
Main unit	1pc
10X dividing eyepiece (0.1mm/div.)	1pc
Calibration rule (graduation 0.01mm)	1pc
Camera adapter	1pc
Adapter 0.5X	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

15X eyepiece (view field: Ø16mm)	**ISM-M2000-15X**
20X eyepiece (view field: Ø12mm)	**ISM-M2000-20X**
DIC	**ISM-M2000-DIC**
Metallurgical image analysis software and camera	**ISM-MAS100**

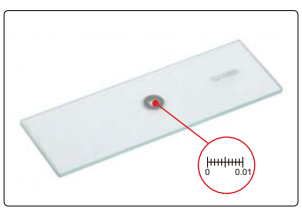
METALLURGICAL IMAGE ANALYSIS SOFTWARE AND CAMERA CODE ISM-MAS100

application example



- Inserted into eyepiece tube or camera connecter of microscopes
- Supplied with software for metallurgical structure analysis, measurement and evaluation

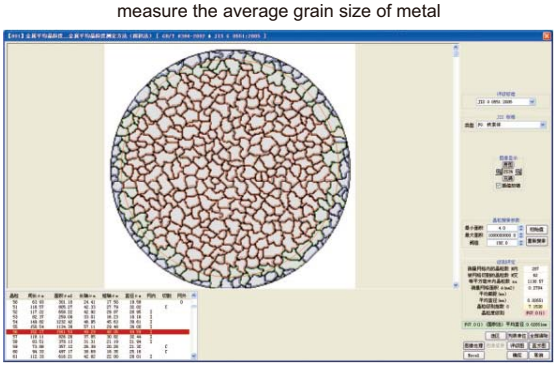
adapter 0.5X (optional)



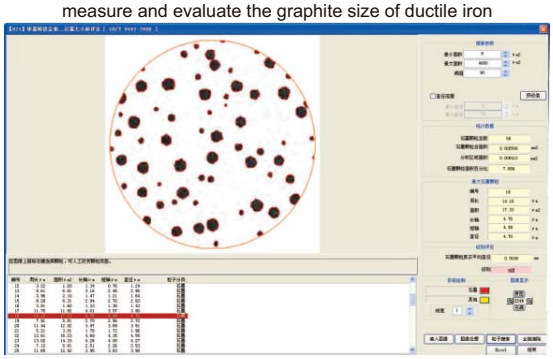
calibration rule (optional, graduation 0.01mm)

metallurgical image analysis software (included)

measure the average grain size of metal



measure and evaluate the graphite size of ductile iron



SPECIFICATION

Sensor	1/2" CMOS
Pixel	300M
Resolution	2048×1536
Frame rate	6fps
Exposure	manual or auto, exposure time is adjustable
SNR	43dB
Power supply	USB
Weight	400g

STANDARD DELIVERY

Camera	1pc
USB cable and software	1pc

OPTIONAL ACCESSORY

Calibration rule (graduation 0.01mm)	**ISM-MAS-SCALE**
Adapter 0.5X	**ISM-MAS-ADAPTER**

PORTABLE MEASURING MICROSCOPE

ISM-PM100

SPECIFICATION

Code	ISM-PM20	ISM-PM40	ISM-PM50	ISM-PM100
Total magnification	20X	40X	50X	100X
Eyepiece	10X with graduation	10X with graduation	10X with graduation	10X with graduation
Objective (achromatic)	2X (numerical aperture: 0.05)	4X (numerical aperture: 0.1)	5X (numerical aperture: 0.12)	10X (numerical aperture: 0.25)
Working distance	17.2mm	18mm	17.6mm	7mm
Graduation	0.05mm	0.025mm	0.02mm	0.01mm
Viewing field	Ø9mm	Ø4.5mm	Ø3.6mm	Ø1.8mm
Focus range	30mm			
Illumination	LED light			
Diameter of base	Ø63mm			
Height	210mm			
Weight	650g			

STANDARD DELIVERY

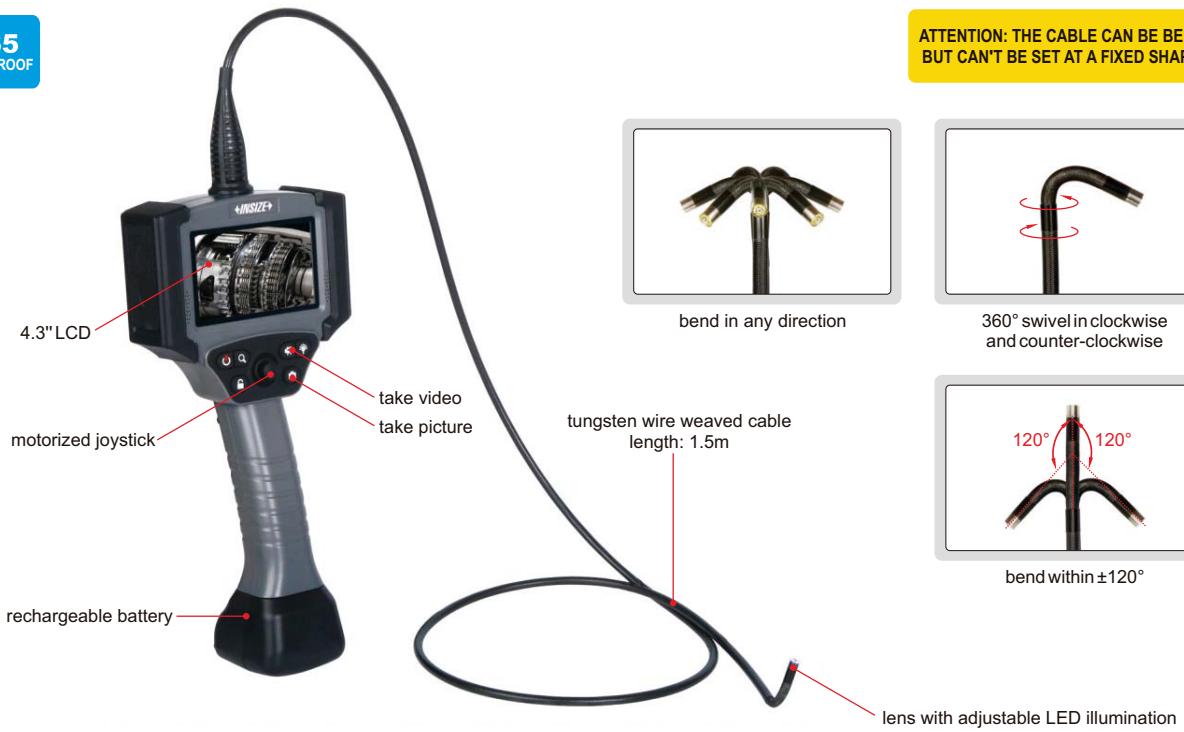
Main unit	1pc
Pen light	1pc
Battery (AAA)	2pcs

TUNGSTEN WIRE WEAVED CABLE
RESISTANCE TO BREAK AND WEAR

MOTORIZED 360° SWIVEL VIDEOSCOPE
CODE ISV-4000D

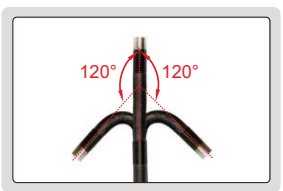
IP65
WATERPROOF

ATTENTION: THE CABLE CAN BE BENT
BUT CAN'T BE SET AT A FIXED SHAPE



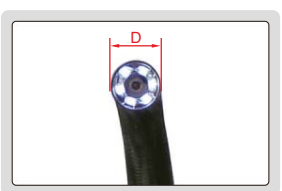
bend in any direction

360° swivel in clockwise
and counter-clockwise

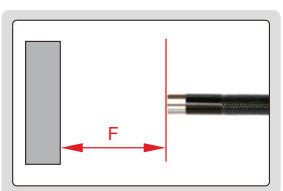


bend within ±120°

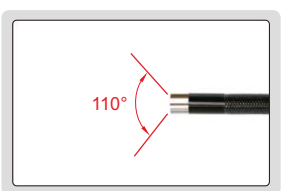
- Motorized joystick to bend the lens in any direction
- Lens bending is automatically locked when joystick is hold for more than 3 seconds



lens with LED
adjustable illumination



focus distance



angle of view: 110°

SPECIFICATION

Lens	diameter(D)	6mm
	focus distance(F)	15mm ~ ∞
	illumination	6pcs LED
	pixel	0.41M
	dust/waterproof	IP65
	bend control	motorized joystick
Cable	length	1.5m
	type	tungsten wire weaved cable
Main unit	function	take picture, take video
	file format	picture: JPG, video: AVI
	image process	brightness, image quality zoom (1X, 2X, 3X)
	memory	8G SD card
	output	TV, USB
	power supply	rechargeable battery (for 4 hours working) AC/DC adapter (for continuous working)
Weight		1kg

STANDARD DELIVERY

Main unit	1pc
Cable with lens	1pc
8G SD card	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc

MANUAL 360° SWIVEL VIDEOSCOPE

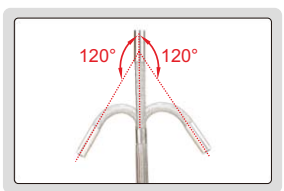
STEEL WIRE WEAVED CABLE
RESISTANCE TO BREAK AND WEAR

IP65
WATERPROOF

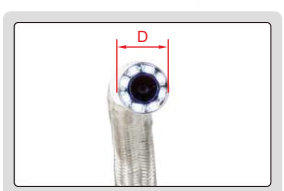
ATTENTION: THE CABLE CAN BE BENT
BUT CAN'T BE SET AT A FIXED SHAPE

bend in any direction

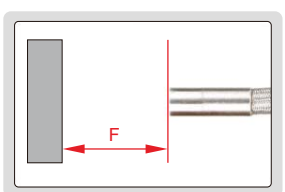
360° swivel in clockwise
and counter-clockwise



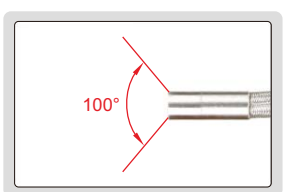
bend within ±120°



lens with LED
adjustable illumination



focus distance



angle of view: 100°

base (optional)

SPECIFICATION

Code		ISV-2000D	ISV-2001D	ISV-3000D	ISV-3001D
Lens	diameter(D)	6.5mm		4.5mm	
	focus distance(F)	15mm ~ ∞		8 ~ 80mm	
	illumination	8pcs LED		6pcs LED	
	pixel	0.35M			
	dust/waterproof	IP65			
	bend control	manual joystick			
Cable	length	1.5m	3m	1.5m	3m
	type	steel wire weaved cable			
Main unit	function	take picture, take video			
	file format	picture: JPG, video: AVI			
	image process	brightness, image quality zoom (1X, 2X, 3X, 4X, 5X)			
	memory	8G SD card			
	output	TV, USB			
	power supply	rechargeable battery (for 2 hours working) AC/DC adapter (for continuous working)			
Weight		650g	800g	600g	700g

STANDARD DELIVERY

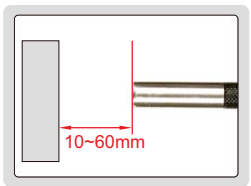
Main unit	1pc
Cable with lens	1pc
8G SD card	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc

OPTIONAL ACCESSORY

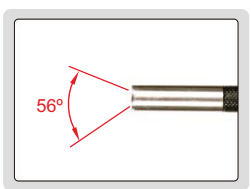
Base	ISV-2000D-BASE

IP67
WATERPROOF

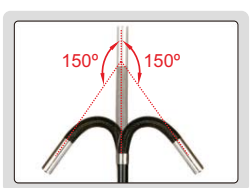
VIDEOSCOPE
CODE ISV-VP60



focus distance: 10~60mm



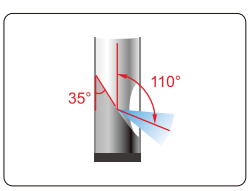
angle of view: 56°



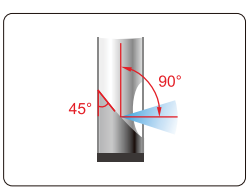
lens can be bent in two directions (±150°)

front view

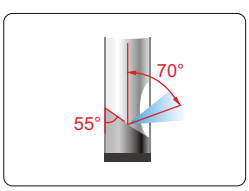
side view (with mirror)



35° mirror (included)



45° mirror (optional)



55° mirror (optional)

SPECIFICATION

Lens	diameter	6mm
	dust/waterproof	IP67
	pixel	0.3M
	resolution	640×480
	frame rate	30fps
Cable	length	1m
	type	semi-rigid
Main unit	function	take picture, take video
	file format	picture: JPG , video: ASF
	image process	mirror, rotate, zoom (1.5X, 2X)
	memory	4G SD card
	output	TV, USB
	power supply	4×AA batteries
Weight		550g

STANDARD DELIVERY

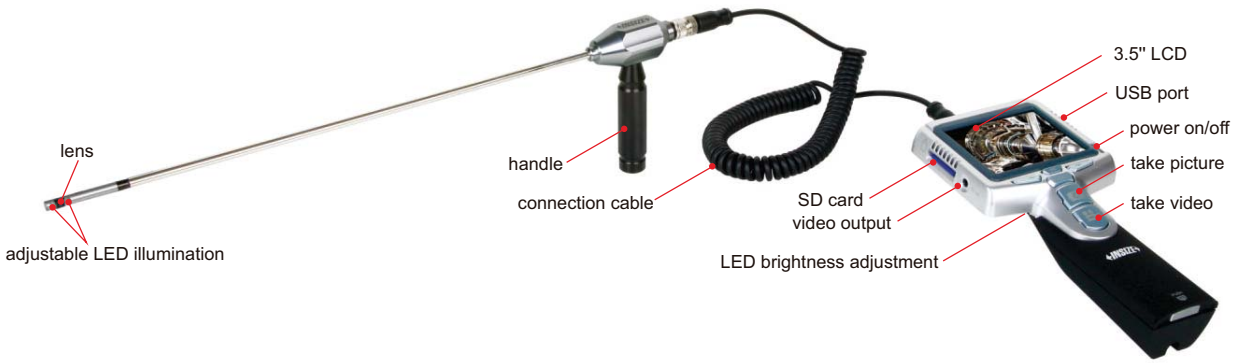
Main unit	1pc
Cable with lens	1pc
35° mirror	1pc
4G SD card	1pc
AA battery	4pcs
Video output cable	1pc
USB cable	1pc

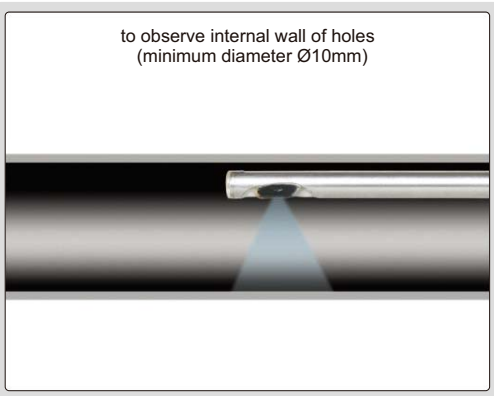
OPTIONAL ACCESSORY

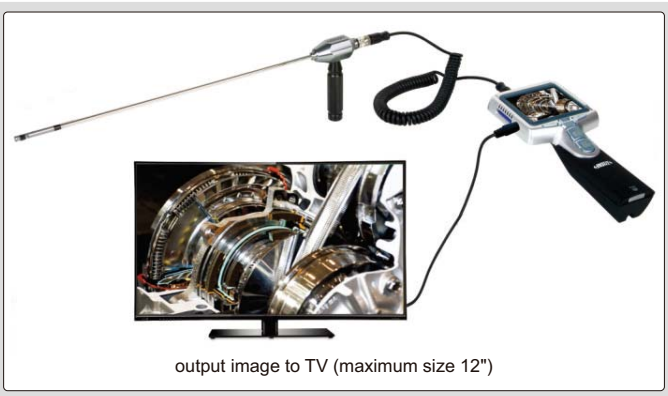
45° mirror	ISV-VP60-R45
55° mirror	ISV-VP60-R55

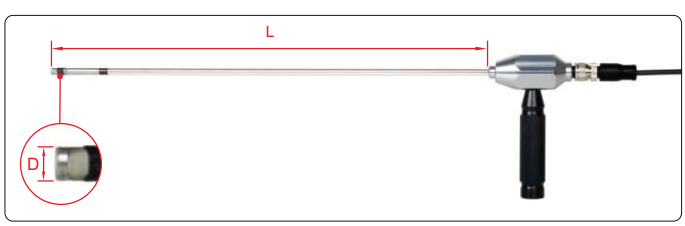
SIDE VIEW VIDEOSCOPE (RIGID)
CODE ISV-RV

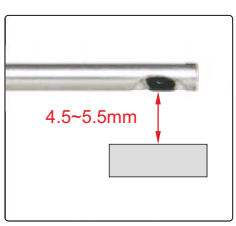
IP57
WATERPROOF



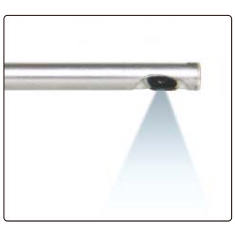


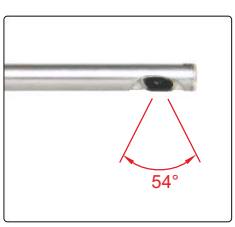






focus distance: 4.5~5.5mm


side view



angle of view: 54°

SPECIFICATION

Diameter (D)	5.5mm
Length (L)	350mm
Dust/waterproof probe	IP57
Pixel	0.3M
Resolution	640×480
Frame rate	30fps
Function	take picture, take video
File format	picture: JPG, video: AVI
Memory	2G SD card
Output	TV, USB
Power supply	rechargeable battery (for 3 hours working)
Weight	570g

STANDARD DELIVERY

Main unit	1pc
2G SD card	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc

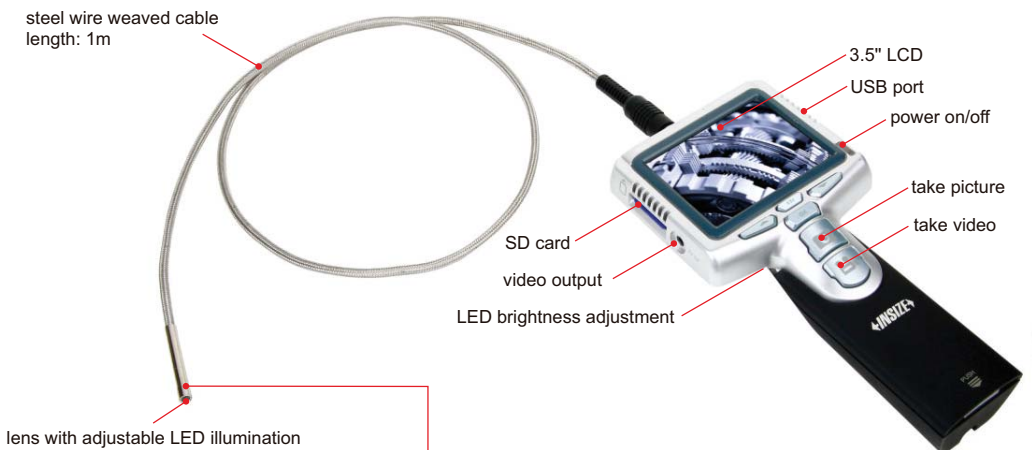
STEEL WIRE WEAVED CABLE
RESISTANCE TO BREAK AND WEAR

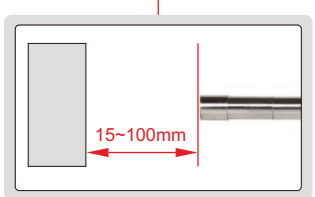
ATTENTION: THE CABLE CAN BE BENT
BUT CAN'T BE SET AT A FIXED SHAPE

IP65
WATERPROOF

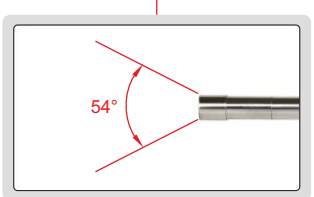
OPTIONAL CABLE
LENGTH 3M, 5M AND 10M

VIDEOSCOPE
CODE ISV-E10

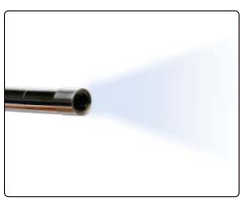


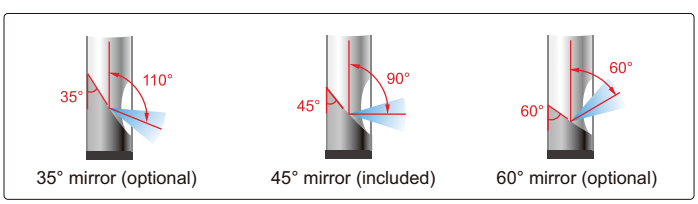


focus distance: 15~100mm



angle of view: 54°


front view



35° mirror (optional) 45° mirror (included) 60° mirror (optional)

side view (with mirror)

SPECIFICATION

Lens	diameter	5.5mm
	pixel	0.3M
	resolution	640×480
	frame rate	30fps
Cable	length	1m
	type	steel wire weaved cable
Main unit	function	take picture, take video
	file format	picture: JPG, video: AVI
	image process	brightness, contrast, color saturation
	memory	2G SD card
	output	TV, USB
	power supply	rechargeable battery (for 3 hours working)
Weight		450g

STANDARD DELIVERY

Main unit	1pc
Cable with lens	1pc
2G SD card	1pc
45° mirror	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc
Lens cleaning kit	1pc

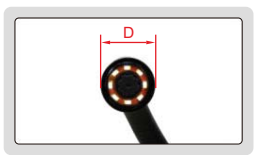
OPTIONAL ACCESSORY

35° mirror	ISV-E55-M35
60° mirror	ISV-E55-M60

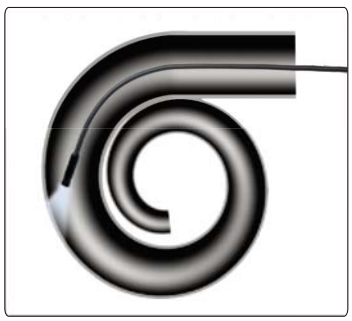
VIDEOSCOPE
CODE ISV-E20

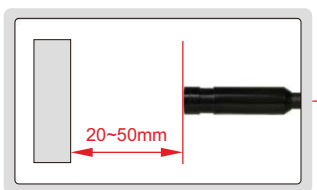
IP57
WATERPROOF

lens with 8pcs LED
adjustable illumination

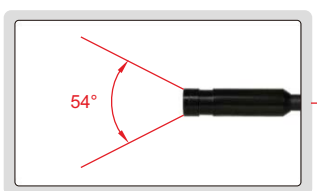


the cable has high illumination and can be set at any shape.
it is suitable to observe large internal space like turbocharger.

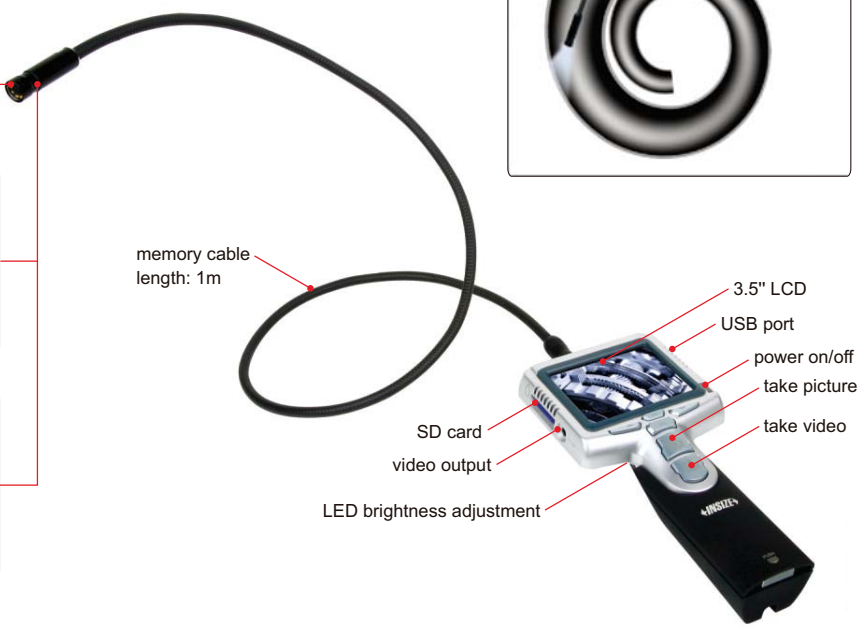




focus distance: 20~50mm



angle of view: 54°



45° mirror (optional)

hook (optional)

magnet pick up (optional)

SPECIFICATION

Lens	**diameter (D)**	12mm
	pixel	0.4M
	resolution	720×682
	frame rate	30fps
Cable	**length**	1m
	type	memory (can be set at any shape)
Main unit	**function**	take picture, take video
	file format	picture: JPG, video: AVI
	image process	brightness, contrast, color saturation
	memory	2G SD card
	output	TV, USB
	power supply	rechargeable battery (for 3 hours working)
Weight		600g

STANDARD DELIVERY

Main unit	1pc
Cable with lens	1pc
2G SD card	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc
Lens cleaning kit	1pc

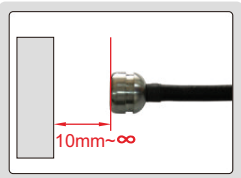
OPTIONAL ACCESSORY

45° mirror	**ISV-E20-MIRROR**
Hook	**ISV-E20-HOOK**
Magnet pick up	**ISV-E20-MAGNET**

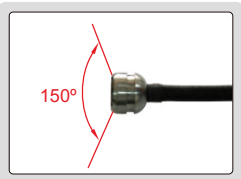
ATTENTION: RESISTANCE TO ACID AND ALKALI LIQUID (CONSULT IS NEEDED)

IP68 WATERPROOF

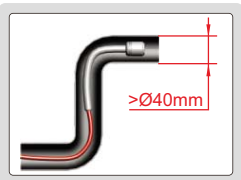
PIPE VIDEOSCOPE
CODE ISV-VP280



focus distance: 10mm~∞



angle of view: 150°



can turn at least two times in the pipe (>Ø40mm)

Ø100mm brush (included) fixed on the lens to clean the internal wall of pipes

Ø50mm centering ring (optional) fixed on the lens to center lens in the pipe

vertical horizontal

SPECIFICATION

Lens	diameter	28mm
	dust/waterproof	IP68
	pixel	0.3M
	resolution	640×480
	frame	30fps
Cable	length	22m
	dust/waterproof	IP68
	type	semi-rigid
Main unit	function	take picture and video
	file format	picture: JPG, video: ASF
	image process	mirror, rotate, zoom (1.5X, 2X)
	memory	4G SD card
	output	TV, USB
	power supply	4×AA batteries
Weight		5kg

STANDARD DELIVERY

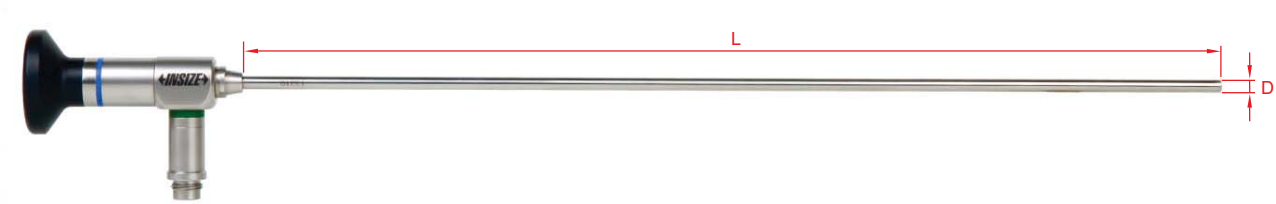
Main unit	1pc
Cable with lens	1pc
Stand	1pc
4G SD card	1pc
Ø100mm brush	1pc
AA battery	4pcs
Vdieo output cable	1pc
USB cable	1pc

OPTIONAL ACCESSORY

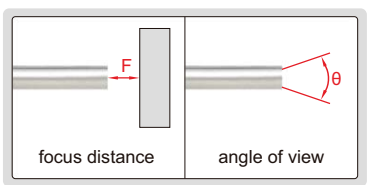
Ø50mm centering ring	ISV-VP280-R50
Ø150mm brush	ISV-VP280-B150

RIGID BORESCOPE

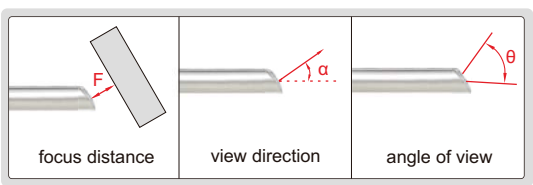
IP67 WATERPROOF



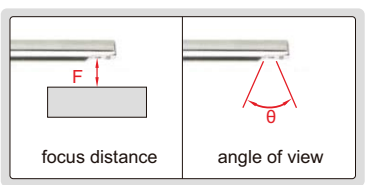
ISV-1H4300



view direction 0°



view direction 30°and 70°



view direction 90°

- Focus distance: 2mm, depth of view: 5~100mm
- Dust/waterproof level: IP67
- Can be used in the liquid with temperature -10°C~85°C

SPECIFICATION

Code	Length (L)	View direction (α)	Diameter (D)	Angle of view(θ)
ISV-1H4170	174mm	0°	4mm	⩾60°
ISV-1H4173	174mm	30°		
ISV-1H4177	174mm	70°		
ISV-1H4179	166mm	90°		
ISV-1H4300	302mm	0°		
ISV-1H4303	302mm	30°		
ISV-1H4307	302mm	70°		
ISV-1H4309	297mm	90°		

Code	Length (L)	View direction (α)	Diameter (D)	Angle of view(θ)
ISV-1H6200	209mm	0°	6mm	⩾70°
ISV-1H6203	209mm	30°		
ISV-1H6207	209mm	70°		
ISV-1H6209	166mm	90°		
ISV-1H6320	328mm	0°		
ISV-1H6323	328mm	30°		
ISV-1H6327	328mm	70°		
ISV-1H6329	330mm	90°		

LED light handle (optional)

adjustable LED light source (optional)

camera (optional)

OPTIONAL ACCESSORY

LED light handle	ISV-1HLED
Adjustable LED light source	ISV-1LED1
Camera	ISV-1CAM

LED LIGHT HANDLE
CODE ISV-1HLED

- For rigid endoscopes

battery

charger

SPECIFICATION

Power	3W
Battery	3.7V rechargeable battery (for 2 hours working)
Dimension	120×27×27mm
Weight	300g

STANDARD DELIVERY

Main unit	1pc
Battery	1pc
Charger	1pc

ADJUSTABLE LED LIGHT SOURCE
CODE ISV-1LED1

- For rigid endoscopes
- High LED illumination and brightness is adjustable
- For long time work with lower noise

SPECIFICATION

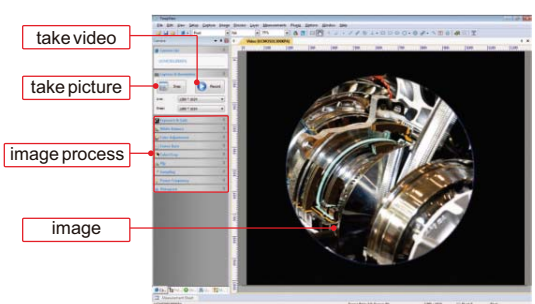
Color temperature	5600K
Cooling	fan cooling
Power	AC110~220V, 50/60Hz
Dimension	400×300×112mm
Weight	7kg

STANDARD DELIVERY

Main unit	1pc
1.8m optical fiber cable	1pc

CAMERA
CODE ISV-1CAM

- For rigid endoscopes
- Connected to computer USB port
- Auto-exposure, auto-gain, auto white balance
- Focus is adjustable



SPECIFICATION

Sensor	color CMOS
Pixel	1.3M
Resolution	1280×1024
Frame rate	15~50fps
Software	take picture, take video, zoom in, zoom out, image rotate
Power supply	USB

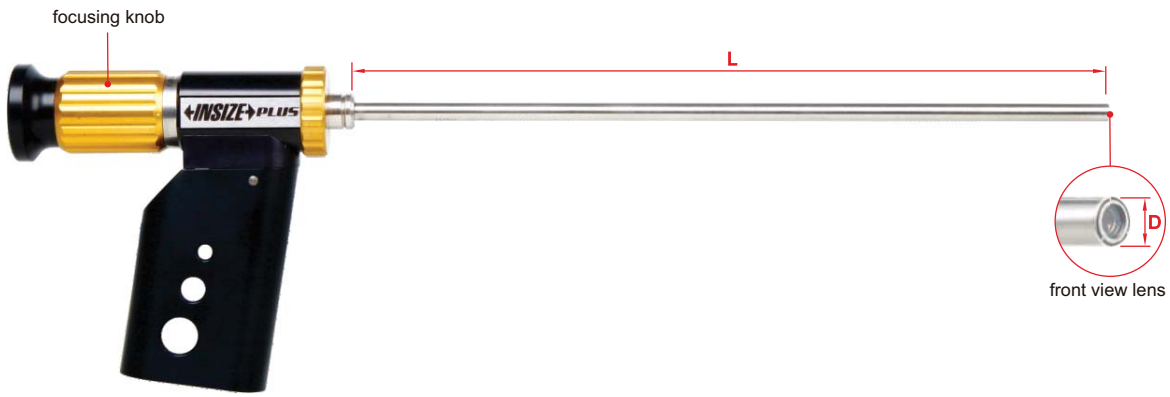
STANDARD DELIVERY

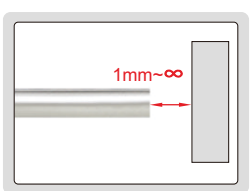
Camera	1pc
Connector	1pc
USB cable and software	1pc

FRONT VIEW BORESCOPE (RIGID)
CODE ISV-HF4030

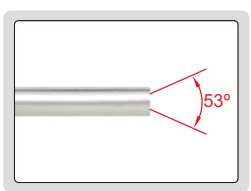
IP67 WATERPROOF

PREMIUM QUALITY INSIZE PLUS MADE IN GERMANY





adjustable focus distance: 1mm~∞



angle of view: 53°

LED light source (optional)

camera (optional)

- Dust/waterproof level: IP67
- Lens can be used in the liquid with temperature -10°C~100°C
- LED light source is needed

SPECIFICATION

Diameter (D)	4mm
Length (L)	300mm
Depth of view	>15mm
Dust/waterproof lens	IP67
Dimension	410×105×30mm
Weight	220g

STANDARD DELIVERY

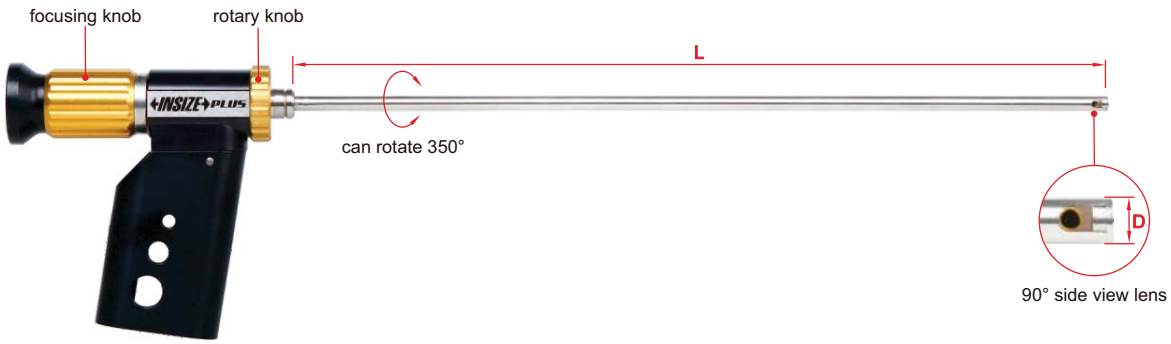
Main unit	1pc
Handle	1pc

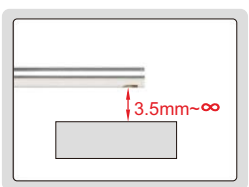
OPTIONAL ACCESSORY

LED light source	**ISV-HL3000**
Camera and software	**ISV-HCAM**

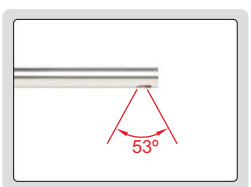
ROTARY SIDE VIEW BORESCOPE (RIGID)
CODE ISV-HR6032

IP67 WATERPROOF

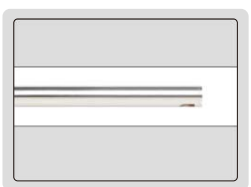




adjustable focus distance: 3.5mm~∞



angle of view: 53°


observe internal wall of small holes

LED light source (optional)

camera (optional)

- Lens can rotate 350°
- Dust/waterproof level: IP67
- Lens can be used in the liquid with temperature -10°C~100°C
- LED light source is needed

SPECIFICATION

Diameter (D)	6mm
Length (L)	320mm
Depth of view	>15mm
Dust/waterproof lens	IP67
Dimension	430x105x30mm
Weight	300g

STANDARD DELIVERY

Main unit	1pc
Handle	1pc

OPTIONAL ACCESSORY

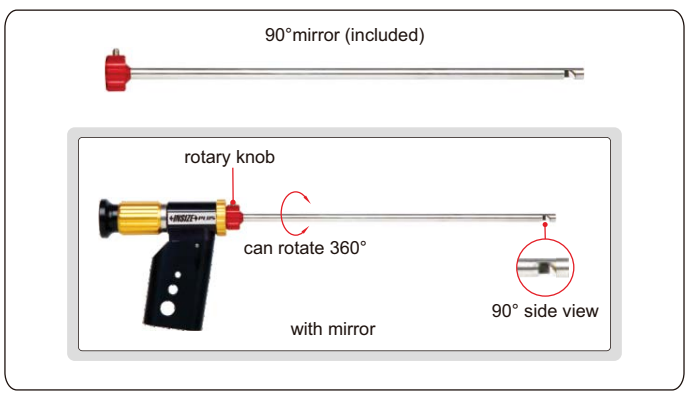
LED light source	**ISV-HL3000**
Camera and software	**ISV-HCAM**

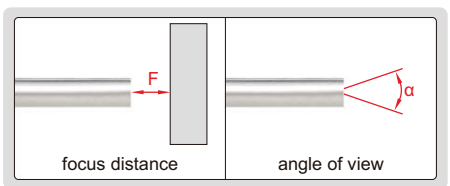
BORESCOPE WITH MIRROR (RIGID)

IP67 WATERPROOF

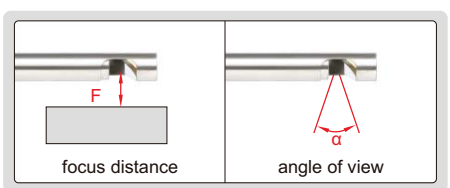
PREMIUM QUALITY INSIZE PLUS MADE IN GERMANY

ISV-HM6025(with handle)





front view



side view (with mirror)

- Front view, side view with mirror
- Dust/waterproof level: IP67
- Lens can be used in the liquid with temperature -10°C~80°C
- LED light source is needed

LED light source (optional)

camera (optional)

SPECIFICATION

Code	ISV-HM2817	ISV-HM4023	ISV-HM6025	ISV-HM6051
Diameter (D)	2.8mm	4mm	6mm	6mm
Length (L)	175mm	232mm	258mm	490mm
Focus distance (F)	2mm~∞(adjustable)	6mm~∞(adjustable)	4mm~∞(adjustable)	3mm~∞(adjustable)
Angle of view (α)	22°	22°	34°	48°
Depth of view	>15mm			
Dust/waterproof lens	IP67			
Handle	without	included	included	included
Dimension	235×33×30mm	368×105×30mm	368×105×30mm	610×105×30mm
Weight	55g	250g	260g	300g

STANDARD DELIVERY

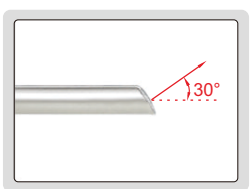
Main unit	1pc
Handle (except ISV-HM2817)	1pc
90° mirror	1pc

OPTIONAL ACCESSORY

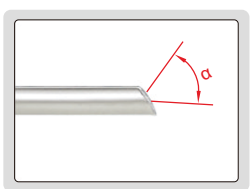
LED light source	ISV-HL3000
Camera and software	ISV-HCAM

OBLIQUE VIEW BORESCOPE (RIGID)

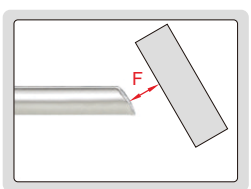
IP67 WATERPROOF



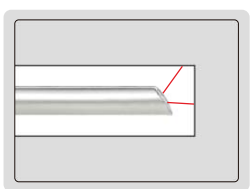
view direction



angle of view



focus distance


observe the bottom of small blind holes

LED light source (optional)

camera (optional)

- Small diameter, used to observe small space
- Dust/waterproof level: IP67
- Lens can be used in the liquid with temperature -10°C~100°C
- Supplied with protection sleeve
- LED light source is needed

SPECIFICATION

Code	ISV-HP1911	ISV-HP2811	ISV-HP2817
Diameter (D)	1.9mm	2.8mm	2.8mm
Length (L)	110mm	110mm	175mm
Focus distance (F)	0.5mm~∞ (adjustable)	0.5mm~∞ (adjustable)	0.5mm~∞ (adjustable)
View direction	30°		
Angle of view (α)	70°	80°	80°
Depth of view	3 ~ 40mm		
Dust/waterproof lens	IP67		
Dimension	162x33x30mm	228x33x30mm	228x33x30mm
Weight	55g	60g	65g

STANDARD DELIVERY

Main unit	1pc
Protection sleeve	1pc

OPTIONAL ACCESSORY

LED light source	ISV-HL3000
Camera and software	ISV-HCAM

LED LIGHT SOURCE
CODE ISV-HL3000

filter (optional)

- For rigid borescopes
- High LED illumination and brightness is adjustable
- For long time work with lower noise

SPECIFICATION

Brightness	470lm
Color temperature	5800K
Cooling method	fan cooling
Operating temperature	10~40°C
Working life	30000h
Power supply	12V DC, 5420mA
Dimension	170x196x98mm
Weight	3.8kg

STANDARD DELIVERY

Main unit	1pc
2.3m optical fiber cable	1pc

OPTIONAL ACCESSORY

Red filter	**ISV-HL3000-RED**
Green filter	**ISV-HL3000-GREEN**
Yellow filter	**ISV-HL3000-YELLOW**
Blue filter	**ISV-HL3000-BLUE**
3500K color temperature filter	**ISV-HL3000-3500K**

CAMERA
CODE ISV-HCAM

- For rigid borescopes
- Connected to computer USB port
- High quality CCD
- Auto-exposure, auto-gain, auto white balance
- Focus is adjustable

SPECIFICATION

Sensor	color CCD
Pixel	0.3M
Resolution	640×480
Frame rate	75fps
Focus distance	18~35mm
Software	take picture, take video, zoom in, zoom out, mirror, image rotate
Power supply	USB
Dimension	95x50x50mm
Weight	150g

STANDARD DELIVERY

Camera	1pc
Connector	1pc
USB cable and software	1pc

COATING THICKNESS GAGE
CODE ISO-2000FN

main unit
ISO-2000FN

SUITABLE FOR SMALL SURFACES, CONCAVE OR CONVEX SURFACES

magnetic induction probe Fe (optional)
ISO-2000FN-FE

eddy current probe NFe (optional)
ISO-2000FN-NFE

- Suitable for small surfaces, concave or convex surfaces
- Magnetic induction probe (Fe) is to measure the thickness of non-magnetic coating on magnetic substrate
  Substrate: iron, steel, magnetic stainless steel (does not include non-magnetic stainless steel)
  Coating: zinc, copper, chrome-tin, plastic powder, paint (does not include nickel)
- Eddy current probe (NFe) is to measure the thickness of non-conductive coating on non-magnetic metal substrate
  Substrate: copper, aluminum, zinc, non-magnetic stainless steel
  Coating: plastic powder, paint, anodizing

standard foil
(included)

SPECIFICATION

Measuring range	magnetic induction probe (Fe)	0~2000μm
	eddy current probe (NFe)	0~800μm
Accuracy		±(1.5+2%L)μm L is measuring thickness in μm
Resolution		0.1μm (range<100μm)
		1μm (range 100~1000μm)
		10μm (range⩾1000μm)
Repeatability		1μm (range 0~1000μm)
		10μm (range⩾1000μm)
Measuring mode		continuous or single
Calibration mode		four points calibration
Minimum substrate thickness		magnetic induction probe (Fe): 0.2mm, eddy current probe (NFe): 0.05mm
Minimum measuring area		5x5mm, calibration should be made on workpiece without coating, test stand (optional) is recommended in order to have same position for calibration and measurement
Power supply		2×1.5V AA batteries
Dimension of main unit		122×65×22mm
Weight of main unit		150g

STANDARD DELIVERY

Main unit	1pc
Zero calibration block for Fe probe	1pc
Zero calibration block for NFe probe	1pc
Standard foil	7pcs
Battery (AA)	2pcs

OPTIONAL ACCESSORY

Magnetic induction probe (Fe)	ISO-2000FN-FE
Eddy current probe (NFe)	ISO-2000FN-NFE
Test stand	ISO-2000FN-STAND

COATING THICKNESS GAGE
CODE ISO-1500F

ATTENTION: BASIC MODEL

MEASURE NON-MAGNETIC COATING ON MAGNETIC SUBSTRATE

zero calibration block (included)

calibration foil (included)

printer (optional)

- To measure the thickness of any non-magnetic coating on magnetic substrate
  substrate: steel, iron, magnetic stainless steel (non-magnetic stainless steel is not included)
  coating: zinc, copper, chrome, tin, plastic, paint (nickel is not included)
- Low and high limits with judgement
- Calculate average value automatically

SPECIFICATION

Measuring range		0~1500μm
Accuracy		±(2%L+2)μm L is measuring thickness in μm
Resolution		0.1μm (range<1000μm)
		1μm (range≥1000μm)
Repeatability		±1μm (range<100μm)
		±(1%L)μm (range≥100μm) L is measuring thickness in μm
Measuring mode		continuous and single
Calibration mode		zero calibration, one point calibration, two points calibration
Minimum substrate thickness		0.5mm
Minimum measuring area		10×10mm
Minimum curvature radius of workpiece	**concave**	30mm
	convex	5mm
Output		USB
Memory		1200
Power supply		3×1.5V AAA batteries (power off automatically)
Dimension		88×67×30mm
Weight		120g

STANDARD DELIVERY

Main unit	1pc
Zero calibration block	1pc
Calibration foil (50μm, 100μm, 500μm, 1000μm,1500μm)	1set
1.5V AAA battery	3pcs
Software and USB cable	1pc

OPTIONAL ACCESSORY

Printer	**ISH-DS-PRINTER**

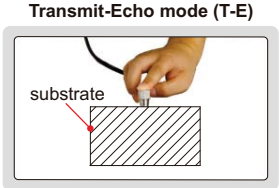
DATA OUTPUT

ULTRASONIC THICKNESS GAGE (THROUGH COATING) CODE ISU-300D

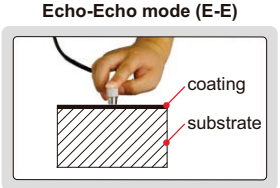
CAN PENETRATE NON-METALLIC COATING AND MEASURE THE THICKNESS OF METAL SUBSTRATE

- Two measuring modes, Echo-Echo (E-E) and Transmit-Echo (T-E):
  - E-E is applicable for non-metallic coating (such as paint, plastic resin, etc.) on metal substrate, can penetrate coating and measure the thickness of substrate
  - T-E is to measure the thickness of material without coating, such as metal, plastic, glass nylon resin, ceramics, rubber, ice, etc.
- Low and high limits with judgment
- Average calculation of maximum 9 readings
- Memory of maximum 500 readings

Transmit-Echo mode (T-E)



Echo-Echo mode (E-E)



couplant (included)

transducer ISU-T04 (optional)

transducer ISU-T06 (optional)

transducer ISU-T12 (optional)

transducer ISU-T13 (optional)

SPECIFICATION

Measuring range	E-E mode: coating thickness 0 ~ 1mm, substrate thickness 4 ~ 25mm
	T-E mode: substrate thickness 1.5 ~ 200mm
Resolution	0.01mm (range<100mm) 0.1mm (range≥100mm)
Repeatability	0.03mm (range<100mm) 0.1mm (range≥100mm)
Accuracy	±0.04mm (range<10mm) ±(0.04+H/1000)mm (range 10~100mm) ±H/333mm (range≥100mm) H is the thickness to be measured in mm
Velocity	1000 ~ 9999m/s
Power supply	2×1.5V AAA batteries
Dimension	116×64×27mm
Weight	220g

STANDARD DELIVERY

Main unit	1pc
Transducer ISU-T07	1pc
Battery (AAA)	2pcs
Couplant (for ISU-T04, ISU-T06,ISU-T07, ISU-T12)	1 bottle
USB cable and software disc	1pc of each

OPTIONAL ACCESSARY

Transducer	**ISU-T04, ISU-T06, ISU-T12, ISU-T13**
Couplant (for ISU-T13)	**ISU-HT5-COUPLANT**

SPECIFICATION OF TRANSDUCERS

Code	Mode	Frenquency	Diameter (Ød)	Measuring range	Minimum size of pipe for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T07	T-E E-E	5.0MHz	10.8mm	T-E mode: 1.5 ~ 200mm E-E mode: 4 ~ 25mm	T-E mode: 20×1.2mm E-E mode: 20×4mm	<60°C	general use
ISU-T04	T-E	10.0MHz	6mm	0.7 ~ 20mm	10×1mm	<60°C	for small tube
ISU-T06	T-E	7.5MHz	8.5mm	0.7 ~ 50mm	15×1.2mm	<60°C	for thin material
ISU-T12	T-E	2.0MHz	16.3mm	2 ~ 400mm	30×4mm	<60°C	for casting iron
ISU-T13	T-E	5.0MHz	13mm	2 ~ 200mm	25×3mm	<350°C	for high temperature

ULTRASONIC THICKNESS GAGE
CODE ISU-250C

DATA OUTPUT

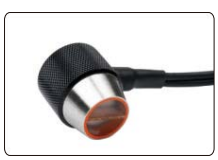
MANUFACTURER INSPECTION CERTIFICATE

- Measure the thickness from one side of object, suitable for pipe, tank, etc.
- Applicable material: metal, plastic, glass, nylon, resin, ceramic, rubber, ice
- Low and high limits with judgement
- Average calculation of maximum 9 readings
- Memory of maximum 5000 readings with location number

couplant (included)

transducer ISU-T04 (optional)

transducer ISU-T06 (optional)


transducer ISU-T12 (optional)

transducer ISU-T13 (optional)

SPECIFICATION

Resolution	0.01mm (range<100mm)
	0.1mm (range≥100mm)
Repeatability	0.03mm (range<100mm)
	0.1mm (range≥100mm)
Accuracy	±0.04mm (range<10mm) ±(0.04+H/1000)mm (range10~100mm) ±H/333mm (range≥100mm) H is the thickness to be measured in mm
Velocity	1000 ~ 9999m/s
Power supply	2×1.5V AAA batteries
Dimension	64×116×27mm
Weight	220g

STANDARD DELIVERY

Main unit	1pc
Transducer ISU-T08	1pc
Battery (AAA)	2pcs
Couplant (for ISU-T04, ISU-T06, ISU-T08, ISU-T12)	1 bottle
USB cable and software disc	1pc of each

OPTIONAL ACCESSORY

Transducer	**ISU-T04, ISU-T06 ISU-T12, ISU-T13**
Couplant (for ISU-T13)	**ISU-HT5-COUPLANT**

SPECIFICATION OF TRANSDUCERS

Code	Frequency	Diameter (Ød)	Measuring range	Minimum size of pipe for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T08	5.0MHz	10.8mm	0.8 ~ 300mm	20×1.2mm	<60°C	general use
ISU-T04	10.0MHz	6mm	0.7 ~ 20mm	10×1mm	<60°C	for small tube
ISU-T06	7.5MHz	8.5mm	0.7 ~ 50mm	15×1.2mm	<60°C	for thin material
ISU-T12	2.0MHz	16.3mm	2 ~ 400mm	30×4mm	<60°C	for casting steel
ISU-T13	5.0MHz	13mm	2 ~ 200mm	25×3mm	<350°C	for high temperature

MANUFACTURER INSPECTION CERTIFICATE

DATA OUTPUT

ATTENTION: BASIC MODEL

ULTRASONIC THICKNESS GAGE
CODE ISU-200D

- Measure the thickness from one side of object, suitable for pipe, tank, etc.
- Applicable material: metal, plastic, glass, nylon, resin, ceramic, rubber, ice
- Low and high limits with judgement
- Memory of maximum 500 readings

SPECIFICATION

Resolution	0.01mm (range<100mm)
	0.1mm (range≥100mm)
Accuracy	±0.05mm (range<10mm) ±(0.01+0.5%H)mm (range≥10mm) H is the thickness to be measured in mm
Velocity	1000-9999m/s
Power supply	3×AAA batteries
Dimension	151×70×24mm
Weight	200g

STANDARD DELIVERY

Main unit	1pc
Transducer ISU-200D-N05	1pc
Couplant	1 bottle
USB cable and software	1pc

OPTIONAL ACCESSORY

Transducer	**ISU-200D-N02** **ISU-200D-N07** **ISU-200D-W05** **ISU-200D-HT5**

SPECIFICATION OF TRANSDUCERS

Code	Frequency	Diameter (Ød)	Measuring range	Minimum size of pipe for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-200D-N05	5.0MHz	12mm	0.8~300mm	25×3mm	<60°C	general use
ISU-200D-N02	2.0MHz	17mm	2~400mm	30×4mm	<60°C	for casting steel
ISU-200D-N07	7.5MHz	8mm	0.75~40mm	15×1.2mm	<60°C	for thin material
ISU-200D-W05	5.0MHz	10mm	0.8~230mm	20×1.2mm	<60°C	for wall thickness
ISU-200D-HT5	3.0MHz	15mm	3~100mm	25×3mm	<300°C	for high temperature

DIGITAL LED TACHOMETER/STROBOSCOPE
CODE ISQ-TS120K

proximity trigger (included)

make LED flash frequency same as the rotation or vibration
(power supply from AC/DC adapter when external trigger is used)

- Make cyclical motion (rotation, vibration, etc.) objects to appear slow-moving or stationary
- On-line inspection or observation for moving objects
- Measure the rotation or vibration speed and frequency
- Can be triggered from outside by moving objects, make LED flash frequency same as the rotation or vibration

SPECIFICATION

Flash frequency range		60 ~ 120000FPM (Flash Per Minute), 1 ~ 2000Hz
Resolution	**FPM**	0.1FPM (<100000FPM), 1FPM (≥100000FPM)
	HZ	0.01Hz (<200Hz), 0.1Hz (≥200Hz)
Setting accuracy		±0.01%
Phase shift increment		3°
Flash pulse duration time		0.1 ~ 2.5°
LED light		3pcs American CREE 10W lamp
LED life		3 ~ 5 years
Trigger mode		internal and external
Power supply		built-in rechargeable battery or AC/DC adapter
Dimension		208×70×60mm
Weight		380g

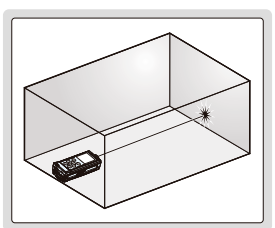
STANDARD DELIVERY

Main unit	1pc
AC/DC adapter	1pc
Proximity trigger	1pc

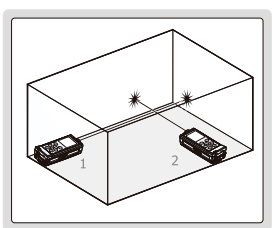
IP52
WATERPROOF

LASER DISTANCE METER
CODE ISN-L70

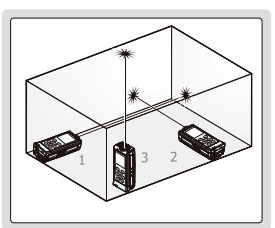
- Large display with backlight
- Unit: m, ft, in
- Distance, area, volume and height measurement
- With continuos measuring mode to track maximum and minimum value
- Automatic power-off: laser 30s, main unit 180s



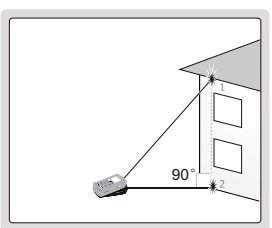
distance measurement



area measurement



volume measurement



height measurement

SPECIFICATION

Measuring range	0.05~70m
Accuracy	±1.5mm
Resolution	1mm
Measuring speed	0.5 second
Dust/waterproof	IP52
Laser type	650nm, Class II, <1mW
Beam size	25mm@30m
Memory	20 measuring data
Power supply	2xAA batteries, for 10000 measurements
Dimension (L×W×H)	110×45×30mm
Weight	130g

STANDARD DELIVERY

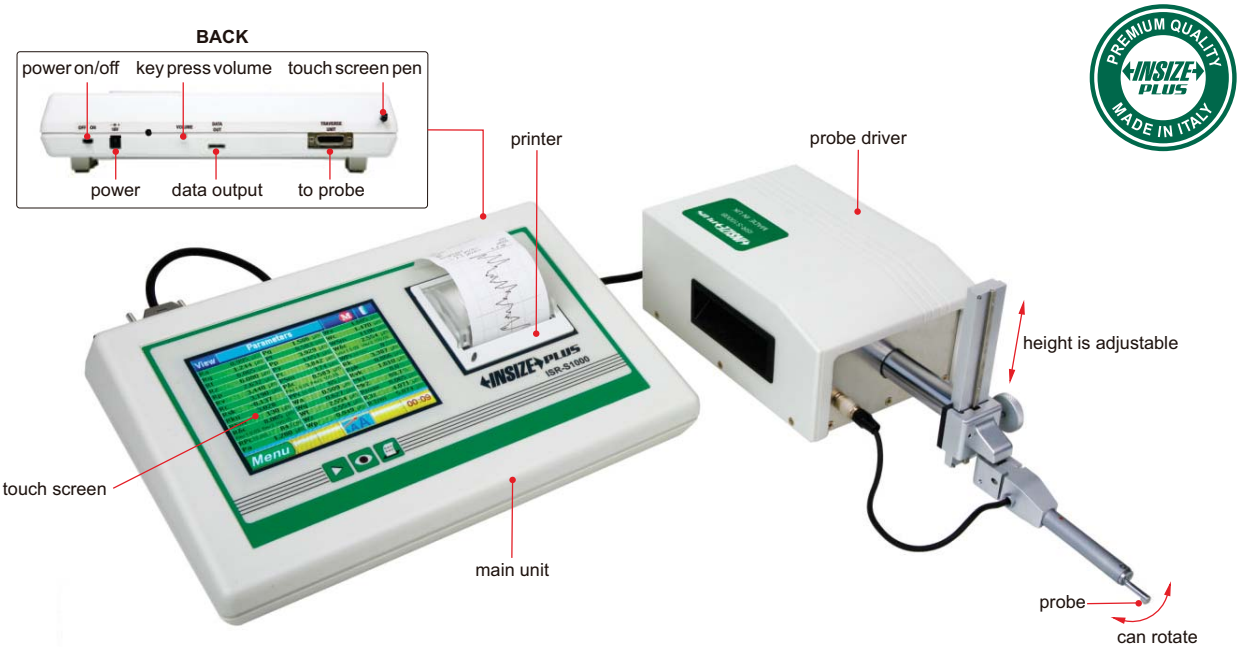
Main unit	1pc
Battery (AA)	2pcs
Strap	1pc
Carrying bag	1pc

SURFACE ROUGHNESS TESTER
CODE ISR-S1000B

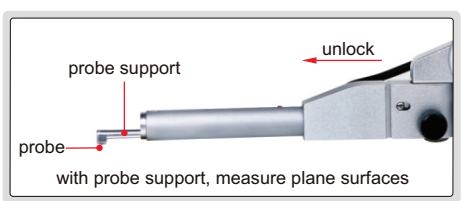
CAN MEASURE WAVINESS AND CURVED SURFACE WITH RADIUS>5MM

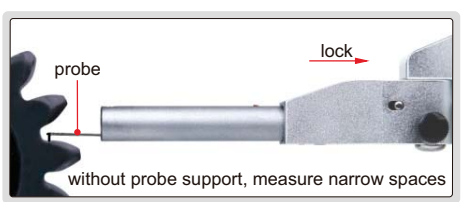
DATA OUTPUT

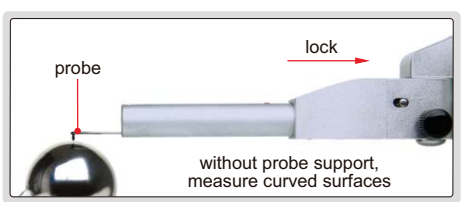
CUSTOM-MADE PROBES ARE AVAILABLE



- 48 roughness parameters according to ISO-4287, JIS-B0601, ISO-12085, JIS-B0631
- Automatic probe leveling
- Measuring range up to 1000μm, can measure grit and shot blasting
- Traverse length up to 50mm
- The probe can rotate from -90° to +90°
- Color touch screen, display roughness values, profile and curves
- Can print roughness values, profile and curves
- Memory of maximum 1000 results
- Can set tolerance

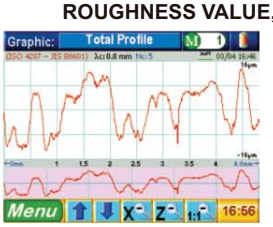




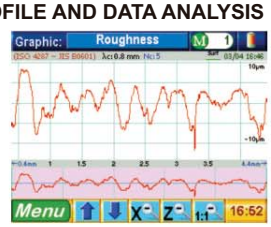


ROUGHNESS VALUE, PROFILE AND DATA ANALYSIS

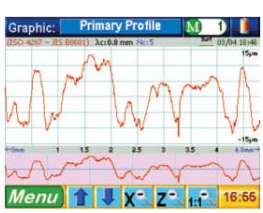
measurement result



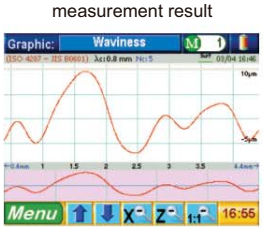
total profile graph



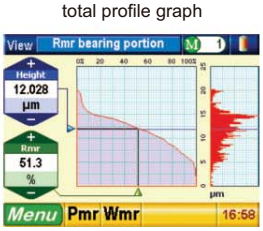
R graph



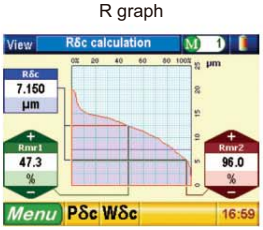
P graph



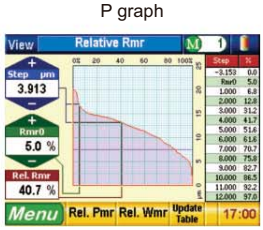
W graph



Rmr, Pmr, Wmr analysis



Rδc, Pδc, Wδc analysis



Rel. Rmr, Rel. Pmr, Rel. Wmr analysis

To be continued

Continued from previous page

SURFACE ROUGHNESS TESTER
CODE ISR-S1000B

SPECIFICATION

Parameters		Ra, Rq, Rt, Rz, Rp, Rv, Rc, Rsk, Rku, RSm, Rδc RPc, Pa, Pq, Pt, Pp, Pv, Pc, Psm, Pδc, PPc, Wa Wq, Wt, Wz, Wp, Wv, Wc, Wsm, Wδc, WPc, Rk Rpk, Rvk, Mr1, Mr2, Rmax, R3z, R3zm, R, AR Rx, Aw, Rke, Rpke, Rvke, Mr1e, Mr2e
Range		1000μm
Accuracy		±3%
Resolution (Ra)		0.001μm
Probe	**type**	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		0.75mN
Measuring unit		μm/μin
Cut off		0.08/0.25/0.8/2.5/8mm
Number of cut-offs		1-19 (cut off 0.08/0.25/0.8/2.5mm) 1-5 (cut off 8mm)
Traverse speed		0.5mm/s or 1mm/s
Memory		1000 measurement results
Output		USB
Power		built-in rechargeable battery
Dimension (LxWxH)		320×210×80mm
Weight		2.2kg

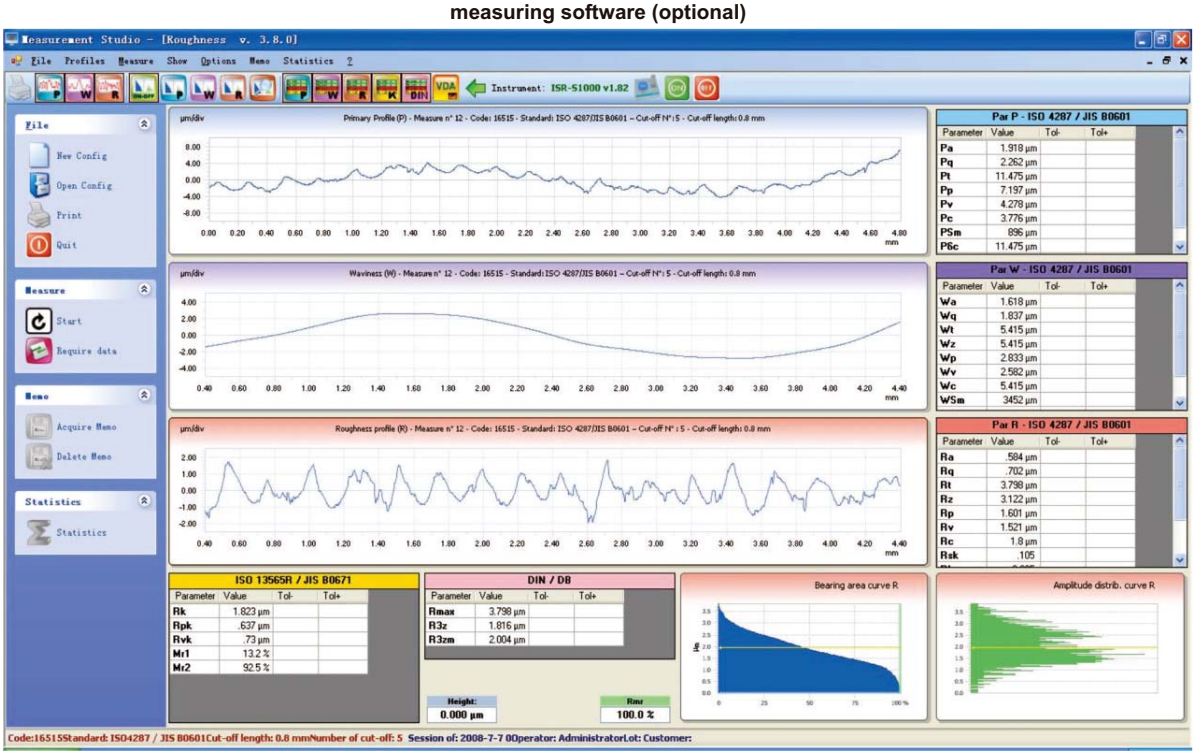
STANDARD DELIVERY

Main unit	1pc
Probe driver	1pc
Standard probe	1pc
Calibration block	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Probe	see details
USB cable and software	**ISR-S-SOFTWARE**

measuring software (optional)



measuring software (optional), can control the roughness tester, display roughness values, profile and curve, data statistics

To be continued

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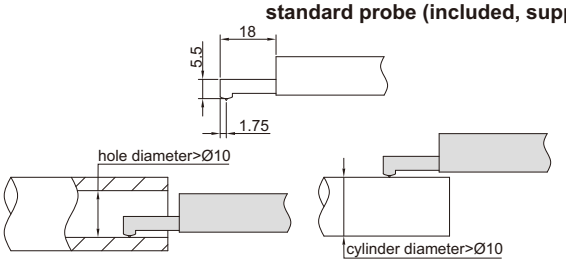
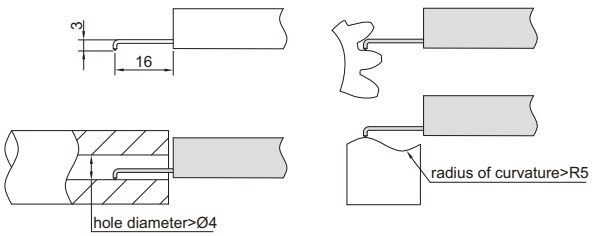
SPECIFICATION OF PROBES

Unit: mm

standard probe (included, support is removable), code ISR-SB10B

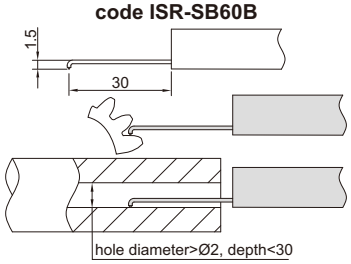


with probe support, measure plane surfaces, holes and cylinders with diameter>Ø10mm



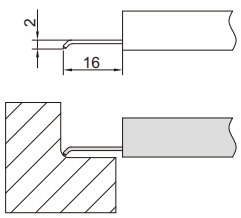
remove probe support, measure holes with diameter>Ø4mm, can measure curved surfaces, narrow spaces and waviness

small hole probe (optional), code ISR-SB60B



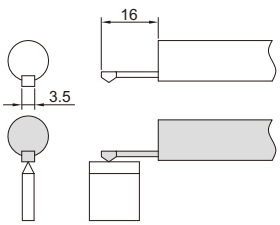
without probe support, measure holes with diameter>Ø2mm and depth<30mm, can measure curved surfaces, narrow spaces and waviness

internal angle probe (optional), code ISR-SB70B



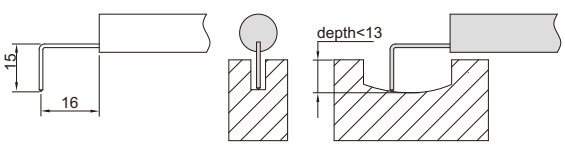
without probe support, measure internal angles, can measure curved surfaces, narrow spaces and waviness

knife edge probe (optional), code ISR-SB130B



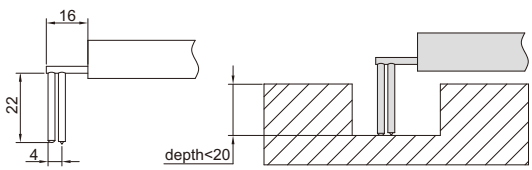
without probe support, measure knife edges and small rods

deep groove probe (optional), code ISR-SB150B



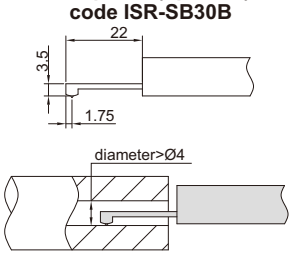
without probe support, measure curved surfaces and grooves with depth<13mm, can measure curved surfaces, narrow spaces and waviness

deep groove probe (optional), code ISR-SB120B



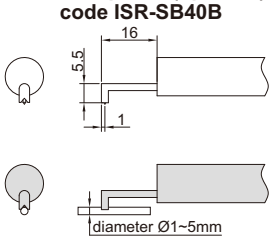
measure grooves with depth<20mm

hole probe (optional), code ISR-SB30B



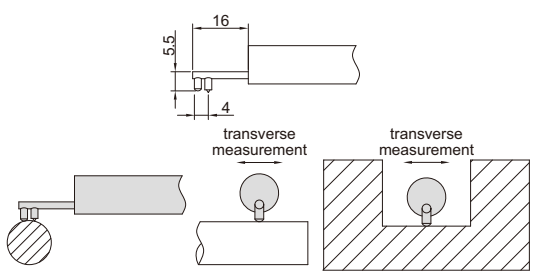
measure plane surfaces and holes with diameter>Ø4mm and depth<20mm

small rod probe (optional), code ISR-SB40B



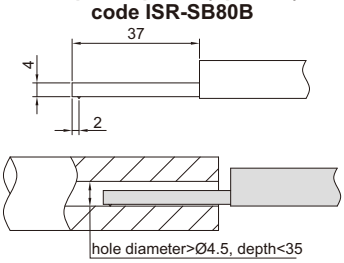
measure small rods with diameter 1~5mm

transverse probe (optional), code ISR-SB50B



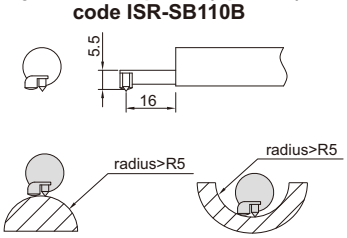
transverse measurement for plane surfaces, cylinders and grooves

deep hole probe (optional), code ISR-SB80B



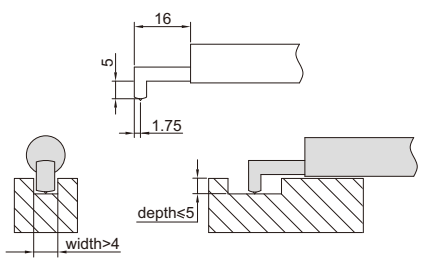
measure holes with diameter>Ø4.5mm and depth<35mm

cylinder/hole probe (optional), code ISR-SB110B



measure cylinders and holes with radius>R5mm

groove probe (optional), code ISR-SB20B

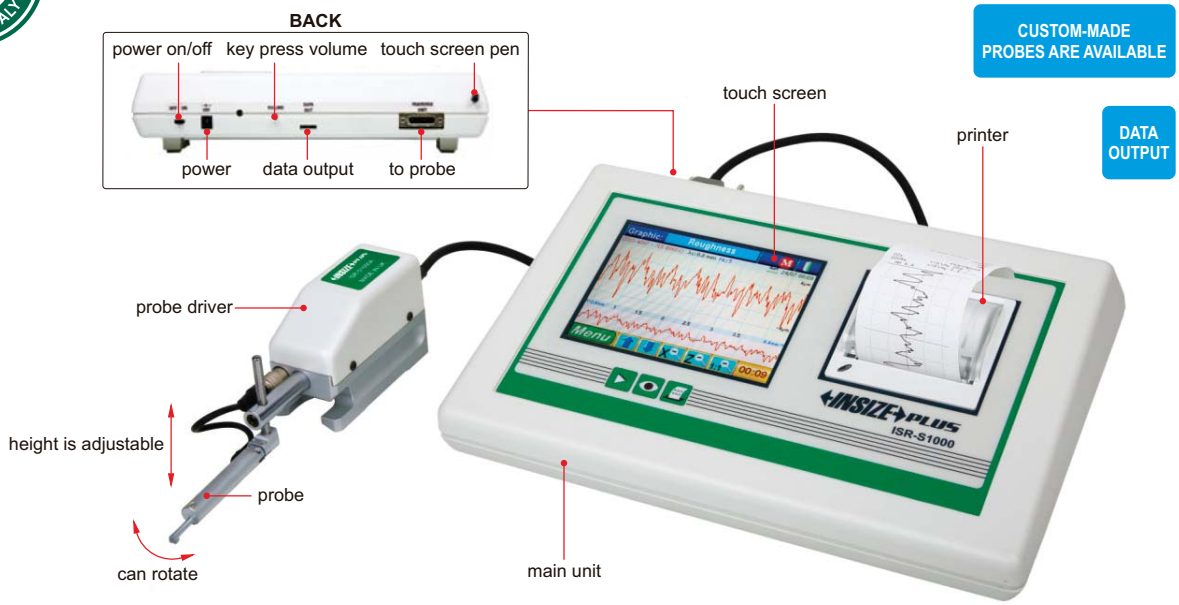


measure plane surfaces and grooves

SURFACE ROUGHNESS TESTER
CODE ISR-S1000A

CUSTOM-MADE PROBES ARE AVAILABLE

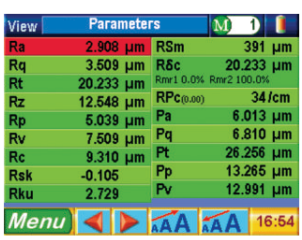
DATA OUTPUT



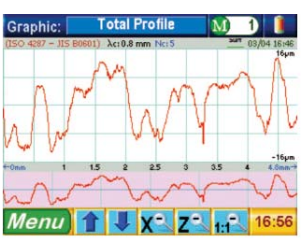
handhold use

probe can be inverted

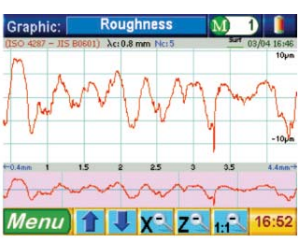
- 38 roughness parameters according to ISO-4287, JIS-B0601, ISO-12085, JIS-B0631
- Automatic probe leveling
- Measuring range up to 1000µm, can measure grit and shot blasting
- Traverse length up to 25mm
- The probe can be set at 90° or 270°, for transverse measurement
- Color touch screen, display roughness values, profile and curves
- Can print roughness values, profile and curves
- Memory of maximum 1000 results
- Can set tolerance



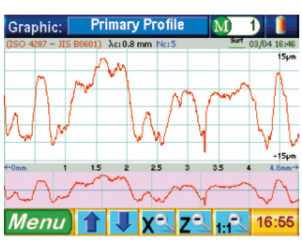
measurement result



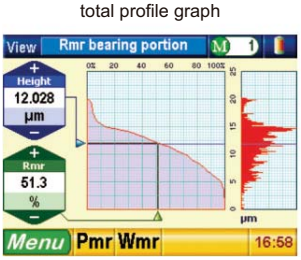
total profile graph



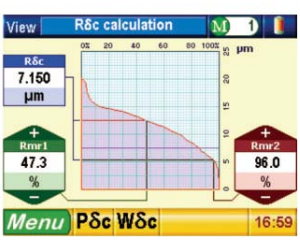
R graph



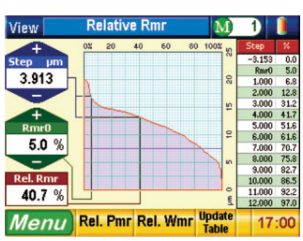
P graph



Rmr, Pmr analysis



Rδc, Pδc analysis



Rel. Rmr, Rel. Pmr analysis

To be continued

Continued from previous page

SURFACE ROUGHNESS TESTER
CODE ISR-S1000A

SPECIFICATION

Parameters		Ra, Rq, Rt, Rz, Rp, Rv, Rc, Rsk, Rku, Rsm Rδc, RPc, Pa, Pq, Pt, Pp, Pv, Pc, PSm, Pδc PPc, Rk, Rpk, Rvk, Mr1, Mr2, Rmax, R3z, R3zm R, AR, Rx, Aw, Rke, Rpke, Rvke, Mr1e, Mr2e
Range		1000μm
Accuracy		±3%
Resolution (Ra)		0.001μm
Probe	**type**	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		0.75mN
Measuring unit		μm/μin
Cut off		0.08/0.25/0.8/2.5mm
Number of cut-offs		1-19 (cut off 0.08/0.25/0.8mm) 1-9 (cut off 2.5mm)
Traverse speed		0.5mm/s or 1mm/s
Memory		1000 measurement results
Output		USB
Power		built-in rechargeable battery
Dimension (L×W×H)		320×210×80mm
Weight		2.2kg

STANDARD DELIVERY

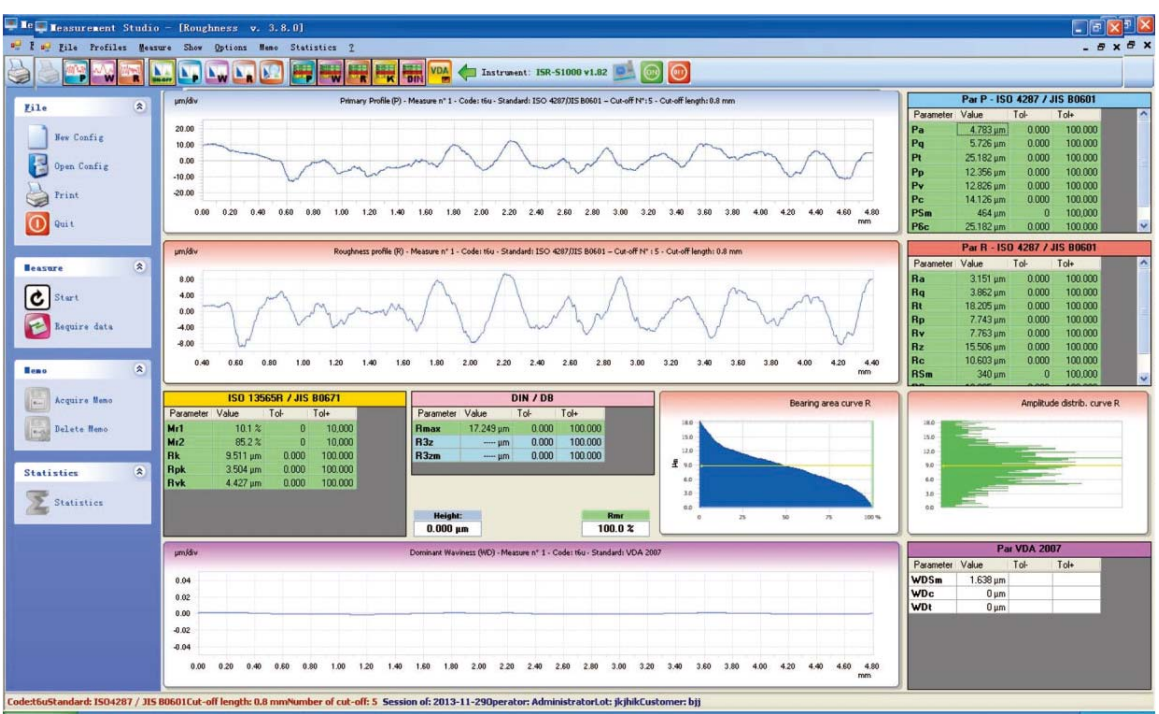
Main unit	1pc
Probe driver	1pc
Standard probe	1pc
Calibration block	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Probe	see details
USB cable and software	**ISR-S-SOFTWARE**
Test stand	**ISR-S400-DK**

test stand (optional)

measuring software (optional)



measuring software (optional), can control the roughness tester, display roughness values, profile and curve, data statistics

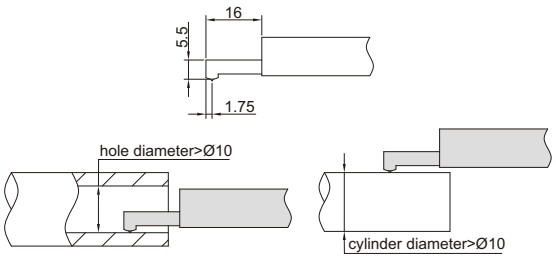
To be continued

Continued from previous page

SPECIFICATION OF PROBES

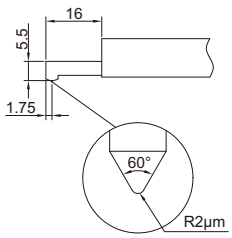
Unit: mm

standard probe (included), code ISR-SB10A



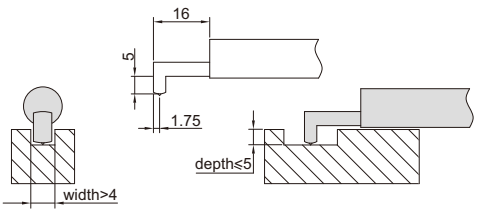
measure plane surfaces, holes and cylinders with diameter>Ø10mm

small roughness probe (optional), code ISR-SB10A-R2



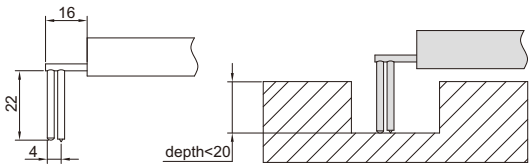
measure surfaces with small roughness

groove probe (optional), code ISR-SB20A



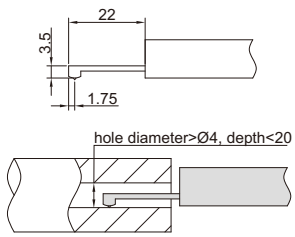
measure plane surfaces and grooves

deep groove probe (optional), code ISR-SB120A



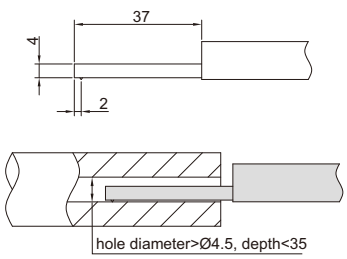
measure grooves with depth<20mm

small hole probe (optional), code ISR-SB30A



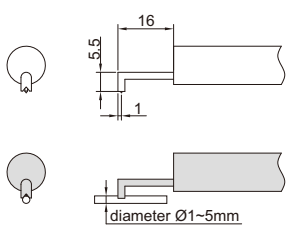
measure plane surfaces and holes with diameter>Ø4mm and depth<20mm

deep hole probe (optional), code ISR-SB80A



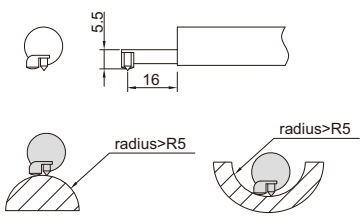
measure holes with diameter>Ø4.5mm and depth<35mm

small rod probe (optional), code ISR-SB40A



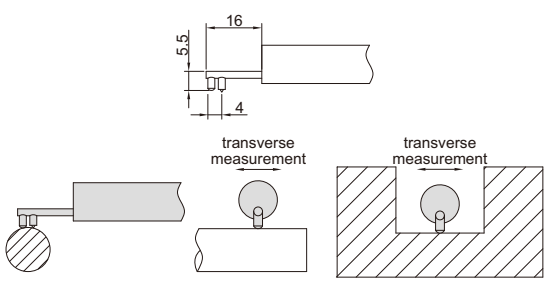
measure small rods with diameter Ø1~5mm

cylinder/hole probe (optional), code ISR-SB110A



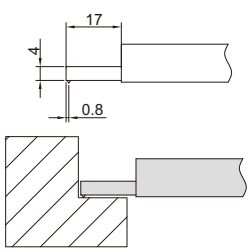
measure cylinders and holes with radius>R5mm

transverse probe (optional), code ISR-SB50A



transverse measurement for plane surfaces, cylinders and grooves

internal angle probe (optional), code ISR-SB140A



measure internal angles

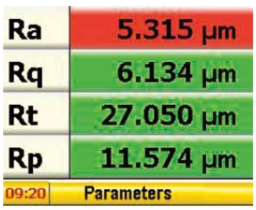
ROUGHNESS TESTER
CODE ISR-S500

CUSTOM-MADE PROBES ARE AVAILABLE

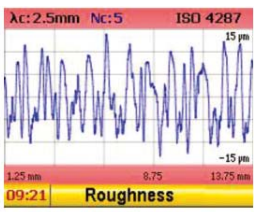
DATA OUTPUT

- Automatic probe leveling
- Language: English, French, German, Italian, Spanish, Portuguese
- 30 roughness parameters
- Can set tolerance
- Measuring range up to 600μm, can measure grit and shot blasting
- Traverse length up to 16mm
- The probe can be set at 90°or 270°, for transverse measurement
- Color screen, display roughness values, profile and curves
- Memory of maximum 1000 results

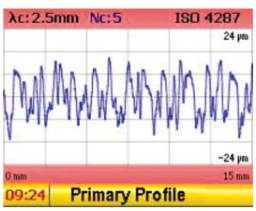
ROUGHNESS VALUE, PROFILE AND DATA ANALYSIS



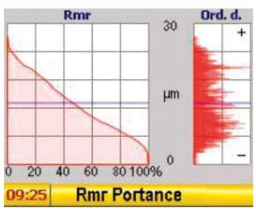
measurement result



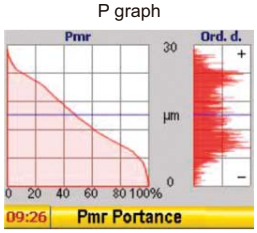
R graph



P graph



Rmr analysis



Pmr analysis

measuring software (optional), can control the roughness tester, display roughness values, profile and curve, data statistics

transverse measurement

probe cover (included), can put the small workpieces directly on the probe for measurement

printer (optional), print measuring results and roughness graph

adjustable stand (included)

To be continued

Continued from previous page

ROUGHNESS TESTER
CODE ISR-S500

SPECIFICATION

Parameters		Ra, Rq, Rt, Rp, Rv, Rz, Rc, RSm, Rδc, Rpc Pa, Pq, Pt, Pp, Pv, Pc, Psm, Pδc, Ppc, Rk,Rpk Rvk, Mr1, Mr2, Rmax, R3z, R3zm, R, AR, Rx
Range		600μm
Accuracy		±3%
Resolution (Ra)		0.001μm
Probe	**type**	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		0.75mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Number of cut-offs		1-10 (cut off 0.25/0.8mm) 1-5 (cut off 2.5mm)
Traverse speed		1mm/s
Memory		1000 measurement results
Output		USB
Power		built-in rechargeable battery
Dimension (L×W×H)		122×53×75mm
Weight		590g

OPTIONAL ACCESSORY

Extension rod	**ISR-S400-ER100**
Probe	see details
Printer	**ISR-S500-PRINTER**
USB cable and software	**ISR-S-SOFTWARE**
Test stand	**ISR-S400-DK**

STANDARD DELIVERY

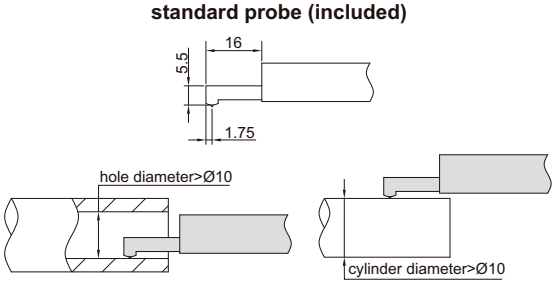
Main unit	1pc
Standard probe	1pc
Calibration block	1pc
Adjustable stand	1pc
AC/DC adapter	1pc
Probe cover	1pc

test stand (optional)

SPECIFICATION OF PROBES

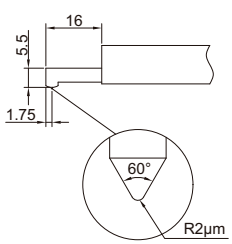
Unit: mm

standard probe (included)



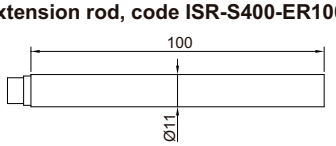
measure plane surfaces, holes and cylinders with diameter>Ø10mm

small roughness probe, code ISR-S400-SB10R2



measure surfaces with small roughness

extension rod, code ISR-S400-ER100



for long holes

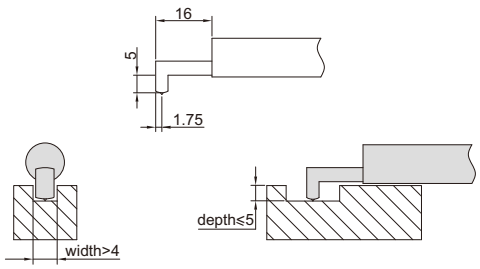
To be continued

Continued from previous page

SPECIFICATION OF PROBES

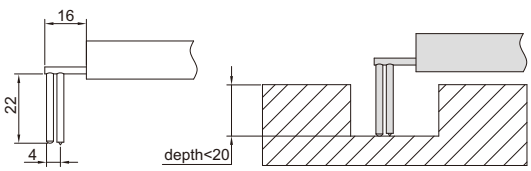
Unit: mm

groove probe, code ISR-S400-SB20



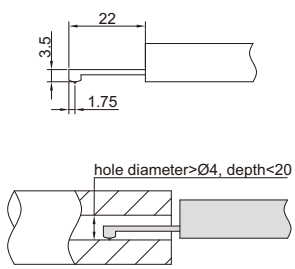
measure plane surfaces and grooves

deep groove probe, code ISR-S400-SB120



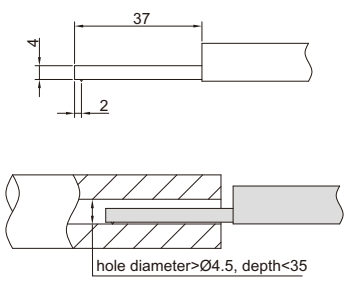
measure grooves with depth<20mm

small hole probe, code ISR-S400-SB30



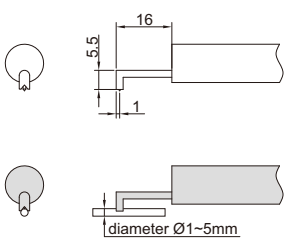
measure plane surfaces and holes with diameter>Ø4mm and depth<20mm

deep hole probe, code ISR-S400-SB80



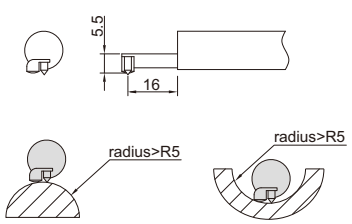
measure holes with diameter>Ø4.5mm and depth<35mm

small rod probe, code ISR-S400-SB40



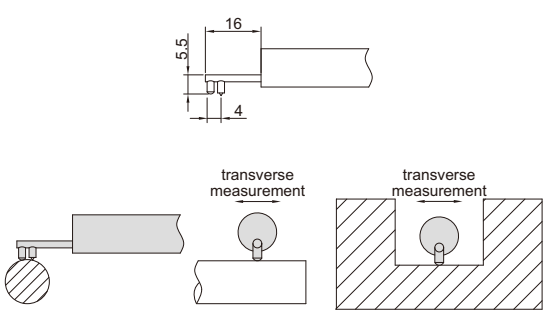
measure small rods with diameter Ø1~5mm

cylinder/hole probe, code ISR-S400-SB110



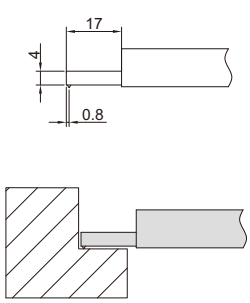
measure cylinders and holes with radius>Ø5mm

transverse probe, code ISR-S400-SB50



transverse measurement for plane surfaces, cylinders and grooves

internal angle probe, code ISR-S400-SB140



measure internal angles

ROUGHNESS TESTER

DATA OUTPUT

CUSTOM-MADE PROBES ARE AVAILABLE

ISR-S300
(probe can't be changed)

ISR-S400
(probe can be changed)

- Automatic probe leveling
- Language: English, French, German, Italian, Spanish, Portuguese
- 12 roughness parameters
- Can set tolerance
- Measuring range up to 400μm, can measure grit and shot blasting
- Traverse length up to 16mm
- The probe can be set at 90°or 270°, for transverse measurement
- Memory of maximum 100 results

transverse measurement

adjustable stand (included)

measuring software (optional), can control the roughness tester, display roughness values, profile and curve, data statistics

probe cover (included), can put the small workpieces directly on the probe for measurement

printer (optional), print measuring results and roughness graphic

test stand (optional)

To be continued

Continued from previous page

SPECIFICATION

Code		ISR-S300	ISR-S400
Remark		probe can't be changed	probe can be changed
Parameters		Ra, Rq, Rt, Rz, Rc, Rmax, Rsm, Rpc, Rmr, R, AR, Rx	
Range		Ra: 0~100μm, Rt: 0.05~400μm	
Accuracy		±3%	
Resolution (Ra)		0.001μm	
Probe	type	inductive	
	stylus radius/angle	5μm/90°	
	stylus material	diamond	
Measuring force		0.75mN	
Measuring unit		μm/μin	
Cut off		0.25/0.8/2.5mm	
Number of cut-offs		1 to 5	
Traverse speed		1mm/s	
Memory		100 measurement results	
Output		USB	
Power		built-in rechargeable battery	
Dimension(L×W×H)		122×52×68mm	
Weight		650g	

STANDARD DELIVERY

Main unit	1pc
Standard probe	1pc
Calibration block	1pc
Adjustable stand	1pc
AC/DC adapter	1pc
Probe cover	1pc

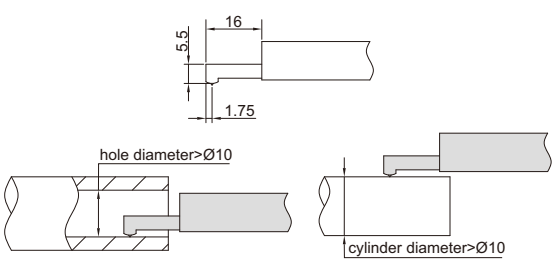
OPTIONAL ACCESSORY

Extension rod (only for ISR-S400)	ISR-S400-ER100
Probe (only for ISR-S400)	see details
Printer	ISR-S400-PRINTER
USB cable and software	ISR-S-SOFTWARE
Test stand	ISR-S400-DK

SPECIFICATION OF PROBES

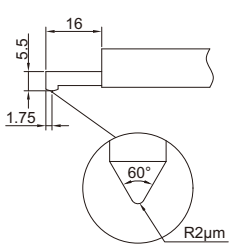
Unit: mm

standard probe (included)



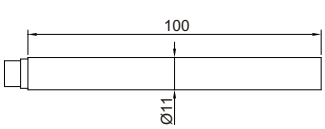
measure plane surfaces, holes and cylinders with diameter>Ø10mm

small roughness probe (for ISR-S400, optional)
code ISR-S400-SB10R2



measure surfaces with small roughness

extension rod (for ISR-S400, optional)
code ISR-S400-ER100



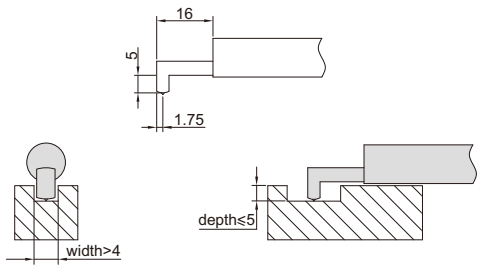
for long holes

To be continued

SPECIFICATION OF PROBES

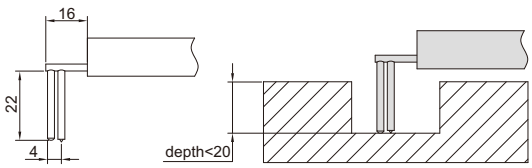
Unit: mm

groove probe (for ISR-S400, optional)
code ISR-S400-SB20



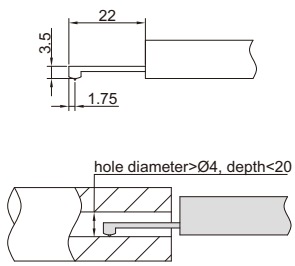
measure plane surfaces and grooves

deep groove probe (for ISR-S400, optional)
code ISR-S400-SB120



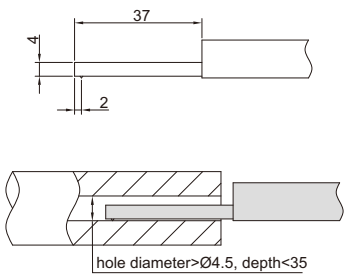
measure grooves with depth<20mm

small hole probe (for ISR-S400, optional)
code ISR-S400-SB30



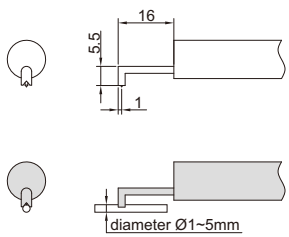
measure plane surfaces and holes with diameter>Ø4mm and depth<20mm

deep hole probe (for ISR-S400, optional)
code ISR-S400-SB80



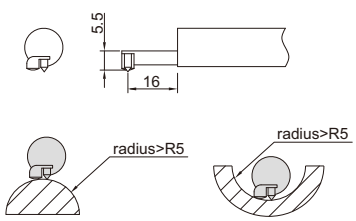
measure holes with diameter>Ø4.5mm and depth<35mm

small rod probe (for ISR-S400, optional)
code ISR-S400-SB40



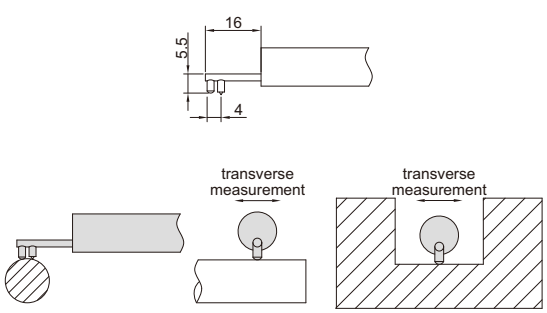
measure small rods with diameter Ø1~5mm

cylinder/hole probe (for ISR-S400, optional)
code ISR-S400-SB110



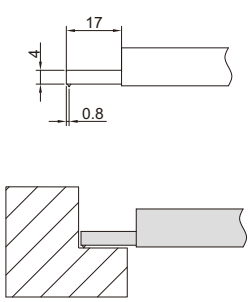
measure cylinders and holes with radius>R5mm

transverse probe (for ISR-S400, optional)
code ISR-S400-SB50



transverse measurement for plane surfaces, cylinders and grooves

internal angle probe(for ISR-S400, optional)
code ISR-S400-SB140



measure internal angles

ROUGHNESS TESTER
CODE ISR-C100

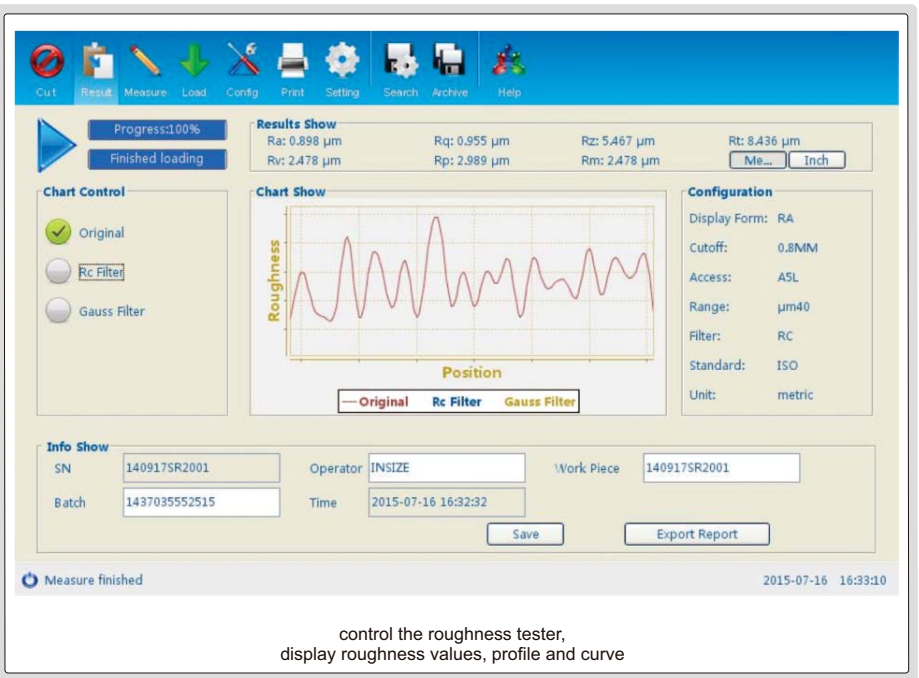
DATA OUTPUT

- 16 roughness parameters
- With probe position indicator
- Connected with printer via bluetooth
- Can display roughness values, profile, and curve
- Memory of maximum 100 results
- Automatic power off

remote control (included)

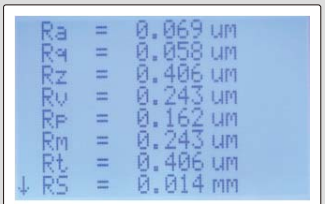
Android APP for mobile device (included), the roughness tester can be controlled by mobile phone or tablet via bluetooth, the maximum working distance is 5m

measuring software for PC (included)

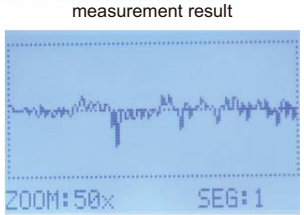


control the roughness tester,
display roughness values, profile and curve

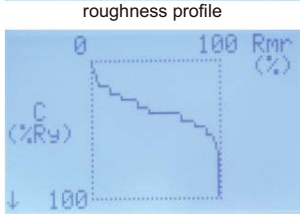
screen display



measurement result



roughness profile



Rmr analysis

To be continued

Continued from previous page

probe cover (included)

can put the small workpieces
directly on the probe for measurement

adjustable stand (included)

wireless printer (optional)

SPECIFICATION

Parameters		Ra, Rq, Rz, Rv, Rp, Rm, Rt, RS, Rsm R3z, R3y, Rz (JIS), Rku, Rsk, Rmax, Rpc
Range		160μm
Accuracy		±10%
Resolution (Ra)		0.001μm
Probe	**type**	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		0.4mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Number of cut-offs		1 to 5
Traverse speed		0.5mm/s, 1mm/s
Memory		100 measurement results
Output		USB and bluetooth
Power		built-in rechargeble battery
Dimension (L×W×H)		140×52×48mm
Weight		440g

STANDARD DELIVERY

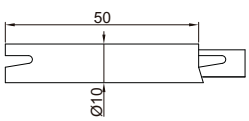
Main unit	1pc
Standard probe	1pc
Calibration block and support	1pc of each
Adjustable stand	1pc
Probe cover	1pc
USB cable and software for PC	1pc
Android APP for mobile device	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

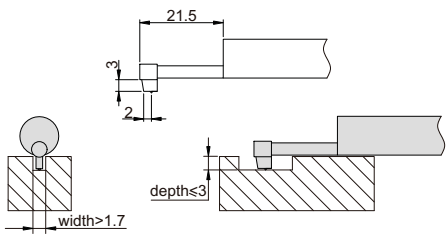
Extension rod	**ISR-C100-ER**
Groove probe	**ISR-C100-130**
Deep groove probe	**ISR-C100-131**
Test stand	**ISR-C100-STAND**
Wireless printer	**ISR-C100-PRINTER**

Unit: mm

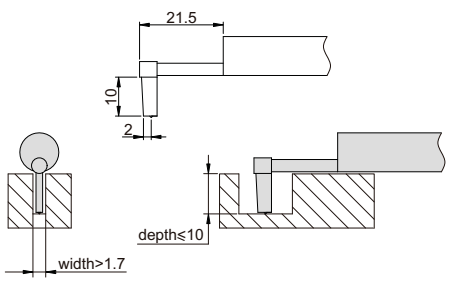
extension rod (optional), code ISR-C100-ER



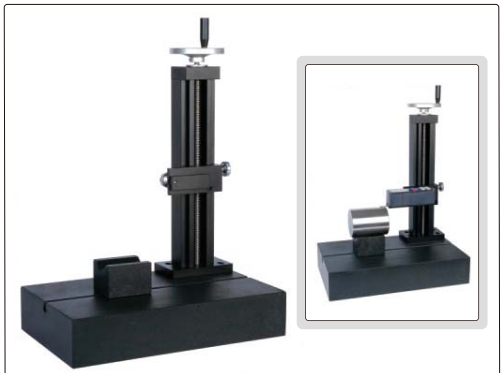
groove probe (optional), code ISR-C100-130



deep groove probe (optional), code ISR-C100-131



test stand (optional)



the maximum workpiece height is 310mm

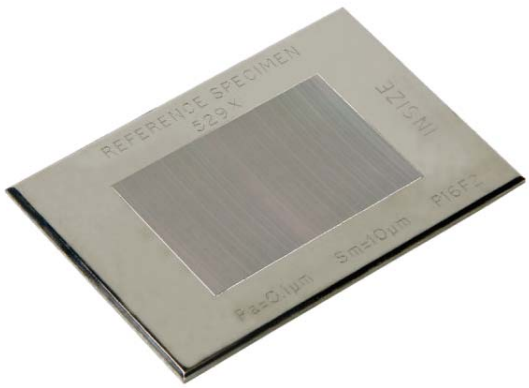
SURFACE ROUGHNESS REFERENCE SPECIMEN

- To calibrate roughness testers
- Meets ISO 5436-1: 2000
- Rust proof, made of pure Nickel

MEASURING ACCURACY CAN BE IMPROVED, IF THE CALIBRATION IS MADE ON A REFERENCE SPECIMEN WITH THE ROUGHNESS VALUE CLOSE TO THE WORKPIECE TO BE MEASURED

Code	Roughness (Ra)
ISR-RS525X	6.25µm*
ISR-RS526X	3.15µm*
ISR-RS527X	3.0µm*
ISR-RS528X	0.5µm*
ISR-RS529X	0.1µm* (not suitable for **ISR-S300**, **ISR-S400** and **ISR-S500**)
ISR-RS530X	1.0µm*
ISR-RS531X	0.3µm* (not suitable for **ISR-S300**, **ISR-S400** and **ISR-S500**)

*The actual value may be slightly different



ISR-RS529X

SURFACE ROUGHNESS SPECIMEN SET CODE ISR-CS130

- For checking, identifying and specifying the roughness by symbol
- Accuracy: +20% ~ -25%, Ra≤0.1µm
  Accuracy: +12% ~ -17%, Ra>0.1µm
- Meets ISO 2632
- Rust-proof, made of pure Nickel

Machining method	Roughness (Ra)	Roughness (Rz)	Quantity
Flat lapping	0.05, 0.1, 0.2µm	0.55, 1, 1.6µm	3pcs
	2, 4, 8µin		
Reaming	0.4, 0.8, 1.6µm	3, 6, 10µm	3pcs
	16, 32, 63µin		
Plain grinding	0.05, 0.1, 0.2, 0.4, 0.8, 1.6µm	0.55, 1, 1.6, 3, 6, 10µm	6pcs
	2, 4, 8, 16, 32, 63µin		
Horizontal milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32, 50µm	6pcs
	16, 32, 63, 125, 250, 500µin		
Vertical milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32, 50µm	6pcs
	16, 32, 63, 125, 250, 500µin		
Turning	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32, 50µm	6pcs
	16, 32, 63, 125, 250, 500µin		

SHOT AND GRIT BLASTING SURFACE ROUGHNESS SPECIMEN

- To check the roughness of steel surfaces which have been blast cleaned before painting
- Meets ISO 8503/1
- Rust-proof, made of pure Nickel
- Each piece contains 4 parts

Code	Machining method	Roughness (Ra)	Roughness (Rz)
ISR-CS017	Shot blasting	3.2, 8, 13, 18μm	19.2, 48, 78, 108μm
ISR-CS018	Grit blasting	3.2, 10.5, 18, 25μm	19.2, 63, 108, 150μm

ISR-CS017

SURFACE ROUGHNESS SPECIMEN

ISR-CS315

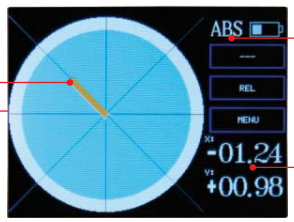
- For checking, identifying and specifying the roughness by symbol
- Accuracy: +20% ~ -25%, Ra≤0.1μm
  Accuracy: +12% ~ -17%, Ra>0.1μm
- Meets ISO 2632 (ISR-CS329 meets ISO 8503/1)
- Rust-proof, made of pure Nickel

Code	Machining method		Roughness (Ra)	Roughness (Rz)	Quantity
ISR-CS315	Surface grinding		0.025, 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2μm	0.29, 0.55, 0.91, 1.74, 2.6, 4.65, 7.87, 15.6μm	8pcs
ISR-CS316	Cylindrical grinding		0.025, 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2μm	0.3, 0.53, 0.88, 1.56, 2.64, 4.4, 7.71, 15.3μm	8pcs
ISR-CS317	Flat lapping	Criss-cross	0.025, 0.05, 0.1, 0.2μm	0.4, 0.6, 0.74, 1.26μm	4pcs
		Parallel	0.025, 0.05, 0.1, 0.2μm	0.34, 0.56, 1.12, 1.5μm	4pcs
ISR-CS318	Cylindrical lapping		0.025, 0.05, 0.1, 0.2μm	0.46, 0.54, 0.63, 1.23μm	4pcs
	Superfinishing		0.025, 0.05, 0.1, 0.2μm	0.36, 0.7, 1, 1.4μm	4pcs
ISR-CS319	Face turning		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.92, 3.2, 6.15, 12.5, 23.7, 48.7, 102, 185μm	8pcs
ISR-CS320	Cylindrical turning		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.7, 3.2, 6.1, 12.2, 23.7, 47.5, 95, 190μm	8pcs
ISR-CS321	End milling		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.92, 3.82, 6.45, 12.2, 25.2, 49.8, 92.6, 191μm	8pcs
ISR-CS322	Reaming		0.4, 0.8, 1.6, 3.2μm	1.7, 3.2, 6.4, 12.8μm	4pcs
	Drilling		1.6, 3.2, 6.3, 12.5μm	7.5, 15.5, 31, 60μm	4pcs
ISR-CS323	Horizontal milling		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.8, 3.68, 6.63, 12.8, 25.6, 53, 97.5, 197μm	8pcs
ISR-CS325	Shaping (planing)		0.8, 1.6, 3.2, 6.3, 12.5, 25, 50, 100μm	3.84, 6.7, 12.2, 25.2, 48.7, 99.9, 190, 361μm	8pcs
ISR-CS326	Linishing (belt sanding)		0.1, 0.2, 0.4, 0.8, 1.6, 3.2μm	0.9, 1.55, 3.37, 7.42, 18.5, 31μm	6pcs
ISR-CS328	Vertical grinding		0.2, 0.4, 0.8, 1.6, 3.2, 6.3μm	1.1, 3.5, 6.15, 8.78, 22.19, 40.8μm	6pcs
ISR-CS329	Grit blasting		3.2, 10.5, 18, 25μm	19.2, 63, 108, 150μm	4pcs
	Shot blasting		3.2, 8, 13, 18μm	19.2, 48, 78, 108μm	4pcs
ISR-CS331	Spark erosion (EDM)		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	2.5, 4.5, 7.2, 14.2, 24.7, 51.2, 105, 196μm	8pcs
ISR-CS333	Hand filing		0.4, 0.8, 1.6, 3.2, 6.3μm	3, 5.6, 12.4, 22.5, 61μm	5pcs
ISR-CS334	Castings		0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	3.2, 8, 16, 32, 56, 112, 225μm	7pcs
ISR-CS335	Honing		0.05, 0.1, 0.2, 0.4, 0.8, 1.6μm	0.31, 0.56, 1, 2, 4.2, 9μm	6pcs
ISR-CS336	Polishing		0.0125, 0.025, 0.05, 0.1, 0.2μm	0.29, 0.35, 0.67, 0.72, 1.52μm	5pcs

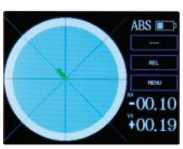
DIGITAL LEVEL

DATA OUTPUT

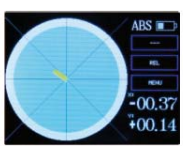
ISE-2DT



- Color LCD, touch panel
- X-Y axis measurement
- Set the tolerance and the display is shown in different colors



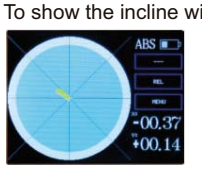
within the tolerance (green)

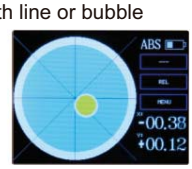


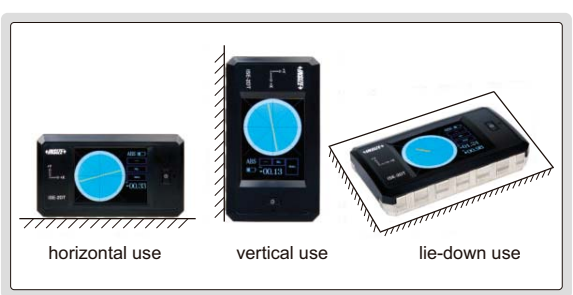
slightly out of the tolerance (yellow)

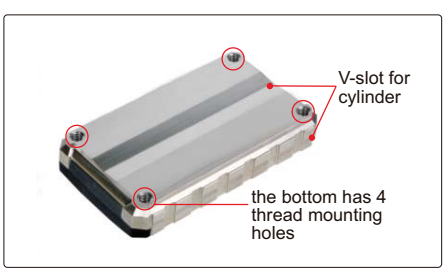
seriously out of the tolerance (red)

- To show the incline with line or bubble









SPECIFICATION

Code	ISE-2DT
Measuring range	±30°
Resolution	0.01°(=0.174mm/m)
Accuracy	±0.03° (range 0~3°) ±0.05° (range >3°)
Power supply	rechargeable battery
Dimension	115×66×23mm
Weight	224g

STANDARD DELIVERY

Main unit	1pc
USB cable	1pc

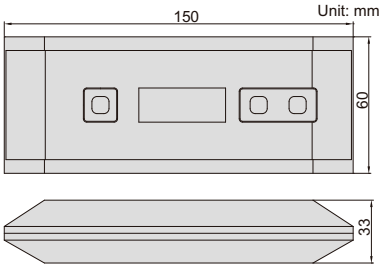
OPTIONAL ACCESSORY

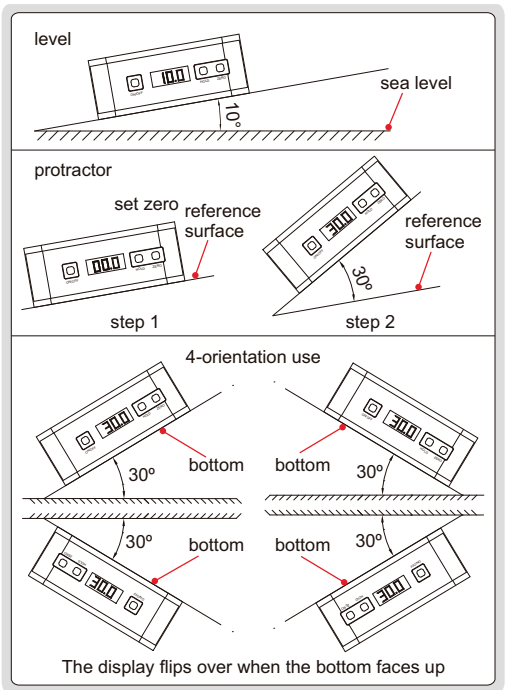
Software	ISE-2DT-SOFTWARE

DIGITAL LEVEL AND PROTRACTOR

2173-360

- Aluminum frame
- Magnetic bottom with V-groove for shafts
- Zero setting can be made on any plain surfaces
- Buttons: ON/OFF, ZERO, HOLD (keep the reading)
- CR2032 battery
- Automatic power off





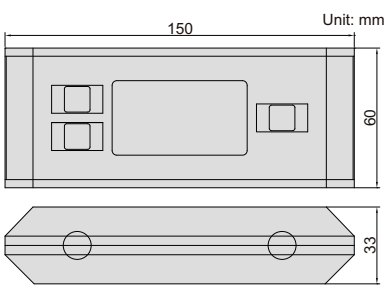
Code	Range	Resolution	Accuracy
2173-360	0-360° (90°x4)	0.1° (= 1.745 mm/m)	0° and 90°: ±0.1°; others: ±0.2°

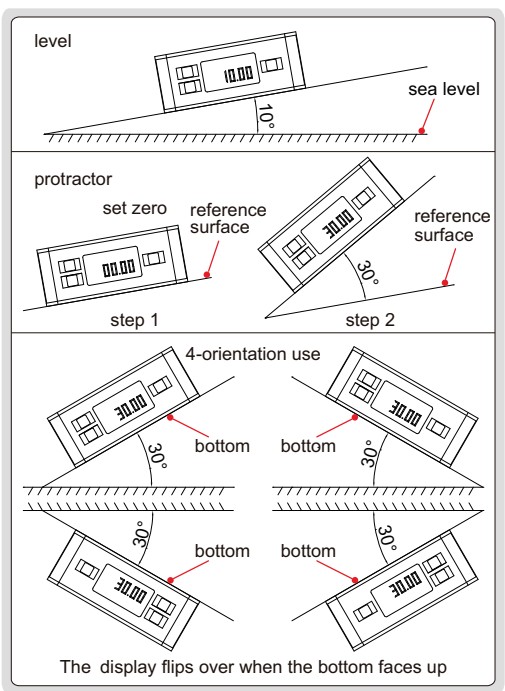
DIGITAL LEVEL AND PROTRACTOR

IP54 WATERPROOF | ABSOLUTE LEVEL | BACKLIGHT | BUZZER ALARM AT 0° AND 90°

2179-360

- IP54 dust/waterproof
- Aluminum frame
- Magnetic bottom with V-groove for shafts
- The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm, unit (mm/m, %, in/ft), backlight
- Two AAA batteries
- Automatic power off



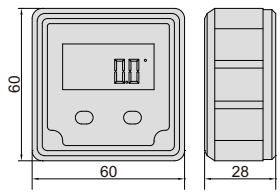


Code	Range	Resolution	Accuracy
2179-360	0-360° (90°x4)	0.05°(=0.873mm/m)	0° and 90°: ±0.1°; others: ±0.2°

DIGITAL LEVEL AND PROTRACTOR

BACKLIGHT | ABSOLUTE LEVEL | MAGNETIC BOTTOM | DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

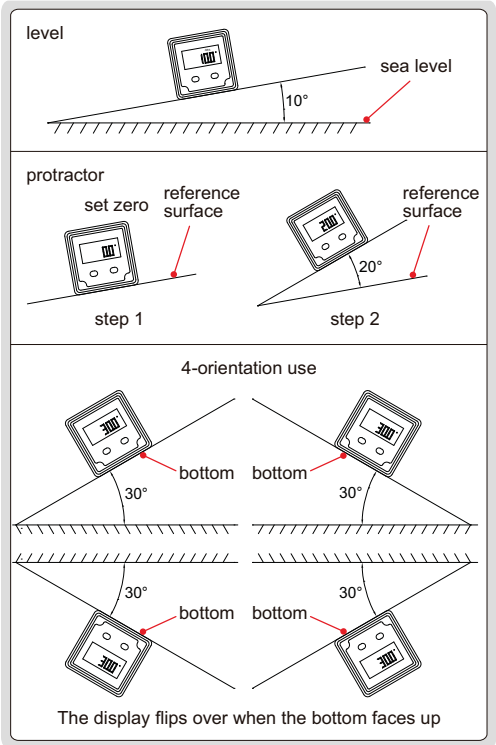
Unit: mm



2170-1

- Aluminum frame
- Magnetic bottom
- The display flips over when the bottom faces up
- The backlight is on automatically when in use, and automatically off in 15 minutes after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, absolute and incremental measurement
- One AAA battery
- Automatic power off in 5 minutes

Code	Range	Resolution	Accuracy
2170-1	4x90°	0.1°(=1.745mm/m)	at 0°and 90°: ±0.1°; others: ±0.2°



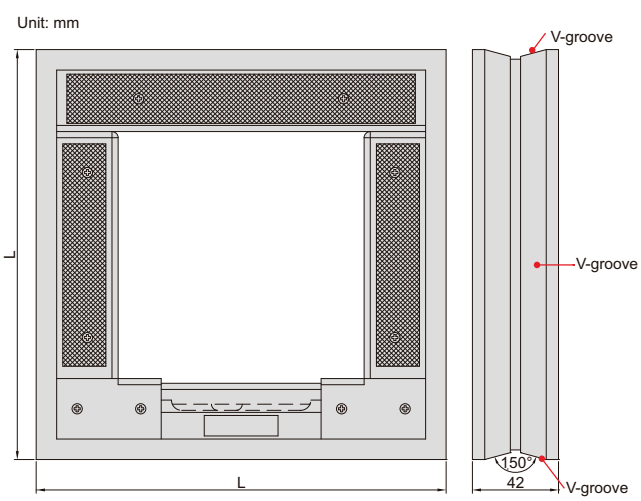
FRAME LEVEL

4906-200

NO NEED TO SET ZERO BEFORE USE

PREMIUM QUALITY INSIZE PLUS MADE IN GERMANY

Unit: mm



Code	Size (LxL)	Sensitivity
4906-150	150x150mm	0.02mm/m(=0.001°)
4906-200	200x200mm	0.02mm/m(=0.001°)
4906-300	300x300mm	0.02mm/m(=0.001°)

- No need to set zero before use
- Three V-grooves for shafts (shafts dia. 19.3~115.9mm)
- With longitudinal vial

BLOCK LEVEL

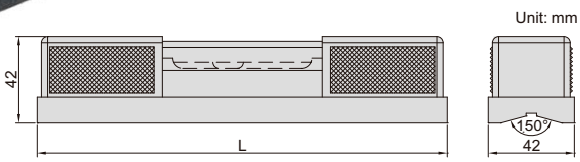
NO NEED TO SET ZERO BEFORE USE

- No need to set zero before use
- V-groove on bottom for shafts (shafts dia. 19.3~115.9mm)
- With longitudinal vial

Code	Size (L)	Sensitivity
4905-160	160mm	0.02mm/m(=0.001°)
4905-200	200mm	0.02mm/m(=0.001°)
4905-300	300mm	0.02mm/m(=0.001°)

4905-200

Unit: mm



SHORT LEVEL

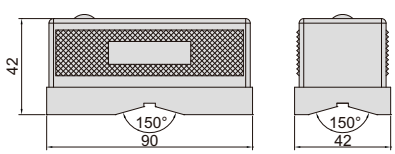
NO NEED TO SET ZERO BEFORE USE

- No need to set zero before use
- Suitable for small spaces like crankshaft
- Longitudinal and transverse V-grooves on bottom for shafts (shafts dia. 19.3~115.9mm)
- With transverse vial

Code	Length	Sensitivity
4907-90	90mm	0.1mm/m(=0.0057°)

4907-90

Unit: mm



MINI LEVEL

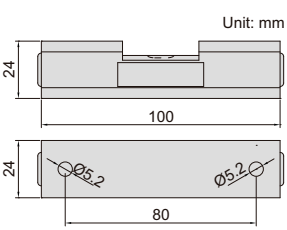
NO NEED TO SET ZERO BEFORE USE

- No need to set zero before use
- With mounting holes

Code	Length	Sensitivity
4908-100	100mm	0.1mm/m(=0.0057°)

4908-100

Unit: mm



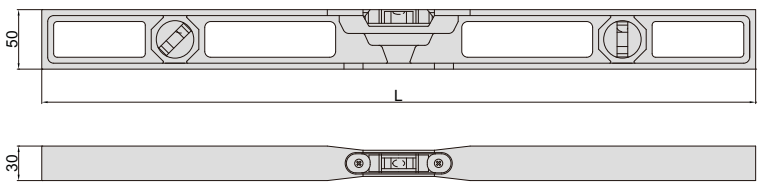
ALUMINUM ALLOY LEVEL

4911-600

- Die casting aluminum alloy frame
- With three vials: 180°, 90° and 45°
- Zero position of vial 180° can be set

Unit: mm

Code	Length (L)	Accuracy
4911-400	400mm	0.75mm/m
4911-600	600mm	0.75mm/m
4911-800	800mm	0.75mm/m

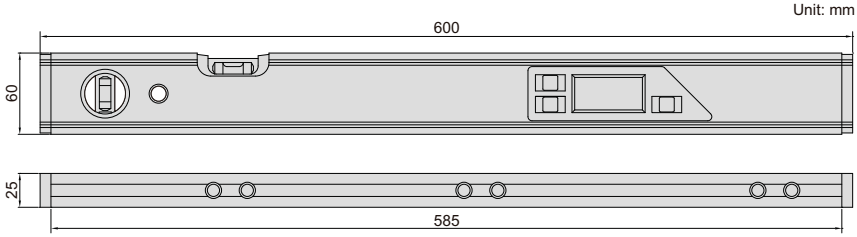


DIGITAL LEVEL

ABSOLUTE LEVEL | BACKLIGHT | BUZZER ALARM AT 0° AND 90°

4910-600

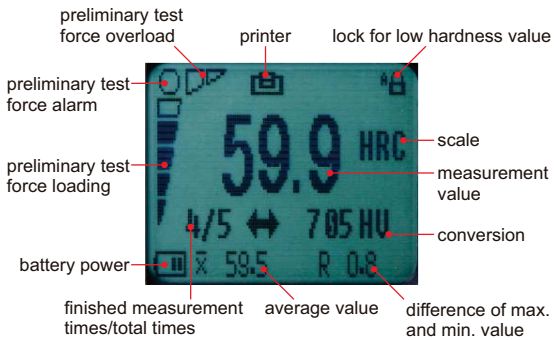
Unit: mm



- With transverse and longitudinal vials
- Used as level and protractor
- Aluminum frame
- Magnetic bottom
- The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm, unit (mm/m, %, in/ft) conversion, backlight
- The display flips over when the bottom faces up
- Two AAA batteries
- Automatic power off

Code	Range	Resolution	Accuracy
4910-600	0-360° (90°x4)	0.1°(=1.745mm/m)	0° and 90°: ±0.1°; others: ±0.2°

AUTOMATIC DIGITAL ROCKWELL HARDNESS TESTER
CODE ISH-MRD200



- Tolerance measurement with alarm
- Set measurement times (2~9) to have average value and the difference of max. and min. value
- Convert to HV or HB automatically
- Memory of 1000 measurement values for browsing and output
- Measurement value can be sent to wireless printer automatically
- Calibration function compensates the measurement value for high accuracy
- The hardness value of soft materials like plastic is not stable. The lock function can obtain the value automatically
- Display unit is automatic power off

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

V-type anvil (included)

wireless printer (optional)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD HRF, HRG (with standard indenters)
	HRE, HRH, HRK (with optional indenter)
Preliminary test force	98N
Test force	588N, 980N, 1471N
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Resolution	0.1HR
Output	wireless and USB
Memory	1000
Max. workpiece height	170mm
Max. workpiece depth	165mm (from the center of indenter)
Power supply of the display unit	built-in rechargeable battery
Power supply *	220V, 50/60Hz
Dimension	520×160×700mm
Weight	60kg

*Add "-U" on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

Main unit	1pc
Ø60mm flat anvil	1pc
Ø150mm flat anvil	1pc
V-type anvil	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	1pc
Hardness test block HRB88-95	1pc
Hardness test block HRC60-65	1pc
Hardness test block HRC20-30	1pc
Anti-dust cover	1pc
USB cable and software	1pc
AC/DC adapter	1pc

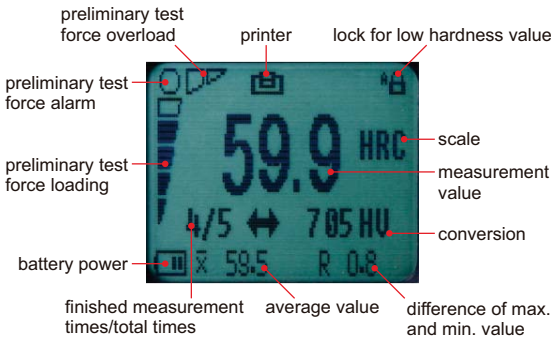
OPTIONAL ACCESSORY

Wireless printer	**ISH-DS-PRINTER**
Ø3.175mm carbide ball indenter	**ISH-EHK-INDENTER**
Hardness test block HRB88-95	**ISH-BHRB**
Hardness test block HRC60-65	**ISH-BHRC3**
Hardness test block HRC20-30	**ISH-BHRC1**

MANUAL DIGITAL ROCKWELL HARDNESS TESTER
CODE ISH-RD200

MANUFACTURER INSPECTION CERTIFICATE

DATA OUTPUT



- Tolerance measurement with alarm
- Set measurement times (2~9) to have average value and the difference of max. and min. value
- Convert to HV or HB automatically
- Memory of 1000 measurement values for browsing and output
- Measurement value can be sent to wireless printer automatically
- Calibration function compensates the measurement value for high accuracy
- The hardness value of soft materials like plastic is not stable. The lock function can obtain the value automatically
- Automatic power off

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

V-type anvil (included)

wireless printer (optional)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD HRF, HRG (with standard indenters)
	HRE, HRH, HRK (with optional indenter)
Preliminary test force	98N
Test force	588N, 980N, 1471N
Stage elevation	manual
Load control	manual
Resolution	0.1HR
Output	wireless and USB
Memory	1000
Max. workpiece height	170mm
Max. workpiece depth	165mm (from the center of indenter)
Power supply	built-in rechargeable battery
Dimension	520×160×700mm
Weight	60kg

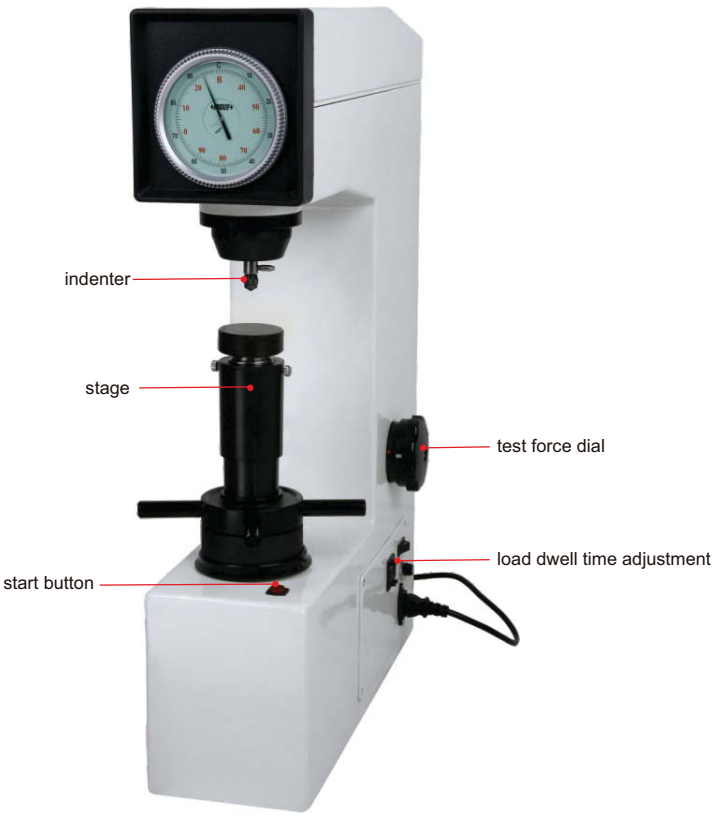
STANDARD DELIVERY

Main unit	1pc
Ø60mm flat anvil	1pc
Ø150mm flat anvil	1pc
V-type anvil	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	1pc
Hardness test block HRB88-95	1pc
Hardness test block HRC60-65	1pc
Hardness test block HRC20-30	1pc
Anti-dust cover	1pc
USB cable and software	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Wireless printer	**ISH-DS-PRINTER**
Ø3.175mm carbide ball indenter	**ISH-EHK-INDENTER**
Hardness test block HRB88-95	**ISH-BHRB**
Hardness test block HRC60-65	**ISH-BHRC3**
Hardness test block HRC20-30	**ISH-BHRC1**

AUTOMATIC ROCKWELL HARDNESS TESTER
CODE ISH-MR150



MANUFACTURER INSPECTION CERTIFICATE

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

V-type anvil (included)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Min. reading	0.5HR
Max. workpiece height	170mm
Max. workpiece depth	165mm (from the center of indenter)
Power supply *	220V, 50/60Hz
Dimension	520×160×700mm
Weight	60kg

*Add “-U” on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

Main unit	1pc
Ø60mm flat anvil	1pc
Ø150mm flat anvil	1pc
V-type anvil	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	1pc
Hardness test block HRB88~95	1pc

STANDARD DELIVERY

Hardness test block HRC60~65	1pc
Hardness test block HRC20~30	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

Hardness test block HRB88~95	**ISH-BHRB**
Hardness test block HRC60~65	**ISH-BHRC3**
Hardness test block HRC20~30	**ISH-BHRC1**

MANUAL ROCKWELL HARDNESS TESTER
CODE ISH-R150

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

V-type anvil (included)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	170mm
Max. workpiece depth	165mm (from the center of indenter)
Dimension	520×160×700mm
Weight	60kg

STANDARD DELIVERY

Main unit	1pc
Ø60mm flat anvil	1pc
Ø150mm flat anvil	1pc
V-type anvil	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	1pc
Hardness test block HRB88~95	1pc

STANDARD DELIVERY

Hardness test block HRC60~65	1pc
Hardness test block HRC20~30	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

Hardness test block HRB88~95	**ISH-BHRB**
Hardness test block HRC60~65	**ISH-BHRC3**
Hardness test block HRC20~30	**ISH-BHRC1**

BRINELL/ROCKWELL/VICKERS HARDNESS TESTER
CODE ISH-BRV

MANUFACTURER INSPECTION CERTIFICATE

Ø60mm flat anvil for Rockwell (included)

Ø150mm flat anvil for Rockwell (included)

V-type anvil for Rockwell (included)

Ø60mm flat anvil for Vickers and Brinell (included)

V-type anvil for Vickers and Brinell (included)

SPECIFICATION

Rockwell test load	98N preload, 588 , 980 ,1471N total load
Min. Rockwell reading	0.5HR
Brinell test load	306, 613, 1839N
Vickers test load	294N
Stage elevation	manual
Load control	manual
Magnification of microscope	37.5X/75X (selectable)
Max. workpiece height	180mm
Max. workpiece depth	200mm (from the center of indenter)
Power supply *	220V, 50/60Hz
Dimension	546×300×767mm
Weight	90kg

* Add “-U” on code No. when power supply is 110V, 50/60Hz

OPTIONAL ACCESSORY

Hardness test block HRB88~95	**ISH-BHRB**
Hardness test block HRC60~65	**ISH-BHRC3**
Hardness test block HRC20~30	**ISH-BHRC1**
Hardness test block 400-500HV30	**ISH-BHV30**
Hardness test block 180-220HBW2.5/187.5	**ISH-BHB25B**

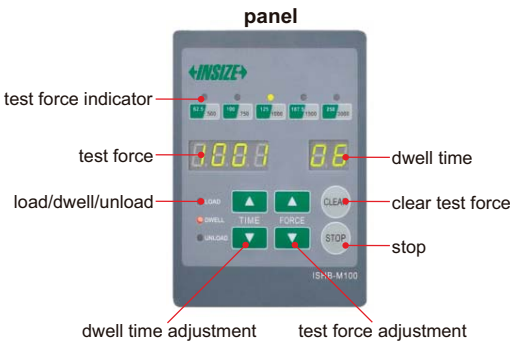
STANDARD DELIVERY

Main unit	1pc
Ø1.5875mm carbide ball indenter	1pc
Diamond Rockwell indenter	1pc
Ø5mm Brinell indenter	1pc
Ø2.5mm Brinell indenter	1pc
Vickers indenter	1pc
Ø60mm flat anvil for Rockwell	1pc
Ø150mm flat anvil for Rockwell	1pc
V-anvil for Rockwell	1pc
Ø60mm flat anvil for Vickers and Brinell	1pc
V-type anvil for Vickers and Brinell	1pc
Hardness test block HRB88~95	1pc
Hardness test block HRC60~65	1pc
Hardness test block HRC20~30	1pc
Hardness test block 400-500HV30	1pc
Hardness test block 180-220HBW2.5/187.5	1pc
Anti-dust cover	1pc

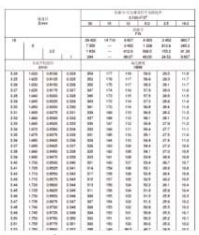
AUTOMATIC BRINELL HARDNESS TESTER
CODE ISHB-M100

AUTOMATIC TESTING AFTER PRELIMINARY TEST FORCE IS LOADED BY HAND

MANUFACTURER INSPECTION CERTIFICATE



measure indentation by measuring microscope


then find the hardness value from table

- Automatic testing after preliminary test force is loaded by hand
- Measure indentation by measuring microscope then find the hardness value from table
- Electronic close-loop load control system

Ø80mm flat anvil (included)

Ø180mm flat anvil (included)

V-type anvil (included)

measuring microscope (included)

SPECIFICATION

Range		8~650HBW
Reading mode		from table
Test force		62.5, 100, 125, 187.5, 250, 500, 750, 1000, 1500, 3000kgf
Max. height of workpiece		230mm
Max. depth of workpiece		160mm (from the center of indenter)
Stage elevation		manual
Load control		automatic (load/dwell/unload)
Load dwell time		5~60 second
Measuring microscope	magnification	20X
	graduation	0.01mm
Power supply *		220V, 50/60Hz
Dimension		550×210×750mm
Weight		90kg

*Add "-U" on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

Main unit	1pc
Ø80mm flat anvil	1pc
Ø180mm flat anvil	1pc
V-type anvil	1pc
Ø2.5mm carbide ball indenter	1pc
Ø5mm carbide ball indenter	1pc
Ø10mm carbide ball indenter	1pc
Hardness test block 150~250HBW2.5/187.5	1pc
Hardness test block 75~125HBW10/1000	1pc
Hardness test block 175~250HBW10/3000	1pc
Measuring microscope	1pc
Anti-dust cover	1pc

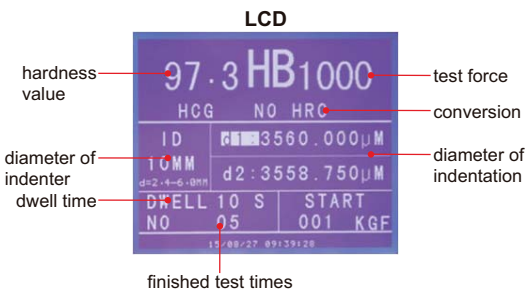
OPTIONAL ACCESSORY

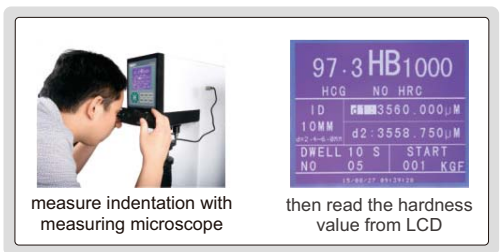
Hardness test block 150~250HBW2.5/187.5	ISH-BHB25B
Hardness test block 75~125HBW10/1000	ISH-BHB10A
Hardness test block 175~250HBW10/3000	ISH-BHB10B
Brinell indentation measuring system	ISHB-TSA/TAB

AUTOMATIC DIGITAL BRINELL HARDNESS TESTER
CODE ISHB-D200

MANUFACTURER INSPECTION CERTIFICATE

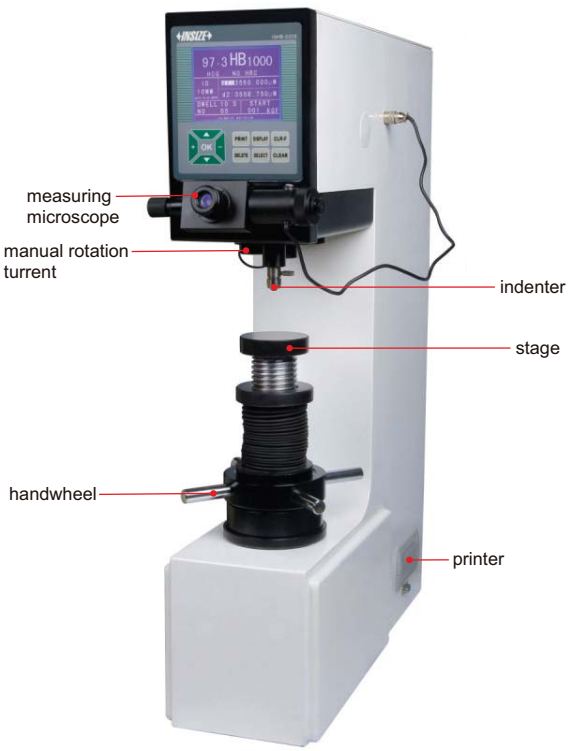
AUTOMATIC TESTING AFTER PRELIMINARY TEST FORCE IS LOADED BY HAND





measure indentation with measuring microscope

then read the hardness value from LCD



- Automatic testing after preliminary test force is loaded by hand
- Measure indentation by measuring microscope then read the hardness value from LCD
- Electronic close-loop load control system
- Can take tests up to 40 times and display maximum, minimum and average value
- Converted to HRA, HRB, HRC, HRD, HRF,HV, HK,HR15N, HR30N, HR45N, HR15T, HR30T, HR45T

Ø80mm flat anvil (included)

Ø180mm flat anvil (included)

V-type anvil (included)

SPECIFICATION

Range		8~650HBW
Reading mode		directly read from LCD
Test force		62.5, 100, 125, 187.5, 250, 500, 750, 1000, 1500, 3000kgf
Max. height of workpiece		200mm
Max. depth of workpiece		135mm (from the center of indenter)
Stage elevation		manual
Load control		automatic (load/dwell/unload)
Load dwell time		5~60 second
Measuring microscope	magnification	20X
	resolution	0.625mm
Power supply *		220V, 50/60Hz
Dimension		550x210x750mm
Weight		90kg

*Add "-U" on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

Main unit	1pc
Ø80mm flat anvil	1pc
Ø180mm flat anvil	1pc
V-type anvil	1pc
Ø2.5mm carbide ball indenter	1pc
Ø5mm carbide ball indenter	1pc
Ø10mm carbide ball indenter	1pc
Hardness test block 150~250HBW2.5/187.5	1pc
Hardness test block 75~125HBW10/1000	1pc
Hardness test block 175~250HBW10/3000	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

Hardness test block 150~250HBW2.5/187.5	ISH-BHB25B
Hardness test block 75~125HBW10/1000	ISH-BHB10A
Hardness test block 175~250HBW10/3000	ISH-BHB10B
Brinell indentation measuring system	ISHB-TSA/TAB

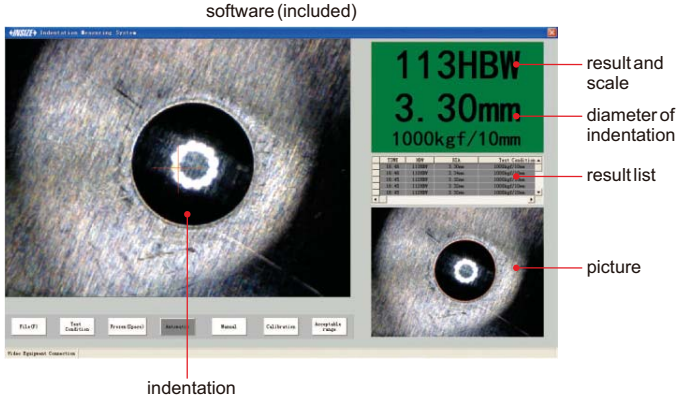
BRINELL INDENTATION MEASURING SYSTEM

ISHB-TSA

- Connected to computer USB port
- Automatically measure the indentation
- Result saved to Excel automatically
- Low and high limits with judgement
- Calibration with indentation on standard hardness block

application

software (included)



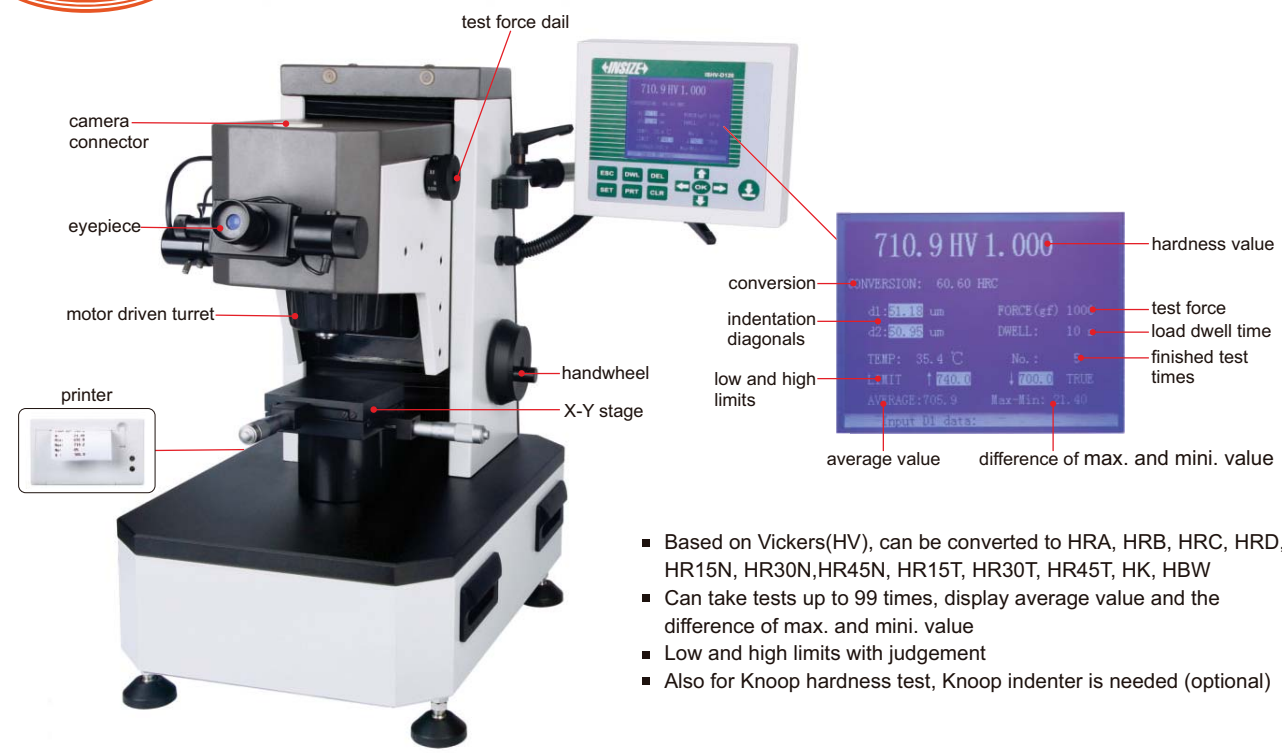
SPECIFICATION

Code		ISHB-TSA	ISHB-TSB
Applicable Brinell indenter		Ø10mm	Ø2.5mm, Ø5mm
Hardness range		8 ~ 650HB	
Range of indentation diameter		Ø2.4 ~ 6mm	Ø0.6 ~ 3mm
Test force		100, 250, 500, 1000, 1500, 3000kgf	62.5, 125, 187.5, 250, 750kgf
Hardness resolution		1HB	
Length resolution		0.01mm	
Length accuracy		±1%(diameter of indentation)	
Camera	Sensor	1/3.2" CMOS	
	Pixel	2M (resolution 1024x768)	
	View filed	9×6.8mm	4.5×3.4mm
Dimension		170×54×54mm	
Weight		420g	

STANDARD DELIVERY

Main unit	1pc
Software and dongle	1pc of each

AUTOMATIC DIGITAL MICRO-VICKERS HARDNESS TESTER
CODE ISHV-D120



- Based on Vickers(HV), can be converted to HRA, HRB, HRC, HRD, HR15N, HR30N,HR45N, HR15T, HR30T, HR45T, HK, HBW
- Can take tests up to 99 times, display average value and the difference of max. and mini. value
- Low and high limits with judgement
- Also for Knoop hardness test, Knoop indenter is needed (optional)

slice holder (included)

vice (included)

cylinder holder (included)

level (included)

SPECIFICATION

Range		10 ~ 3000HV
Test force		0.01, 0.025, 0.05, 0.1, 0.2, 0.3, 0.5, 1kgf
Vickers scales		HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Load control		automatic (load/dwell/unload)
Load dwell time		0 ~ 60 second
Eyepiece	**magnification**	10X
	resolution	0.01μm (≥10μm), 0.001μm (<10μm)
Objective		10X, 40X
Total magnification		100X (for observation) 400X (for measurement)
Max. height of workpiece		210mm
Max. depth of workpiece		135mm (from the center of indenter)
X-Y stage		dimension: 100×100mm travel range: 25×25mm graduation: 0.01mm
Power supply *		220V, 50/60Hz
Dimension		490×320×530mm
Weight		45kg

STANDARD DELIVERY

Main unit	1pc
Micro Vickers indenter	1pc
Hardness test block (400 ~ 500HV0.2)	1pc
Hardness test block (700 ~ 800HV1)	1pc
Slice holder	1pc
Vice	1pc
Cylinder holder	1pc
Level	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

Hardness test block (400 ~ 500HV0.2)	**ISH-BHV02A**
Hardness test block (700 ~ 800HV1)	**ISH-BHV1**
Knoop indenter	**ISHV-D120-KNOOP**
Measuring system	**ISH-HVC**

* Add “-U” on code No. when power supply is 110V, 50/60Hz

DIGITAL VICKERS HARDNESS TESTER

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

V-type anvil (included)

- Based on Vickers(HV), converted to Rockwell(HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK), Brinell(HB), Superficial Rockwell(HR15N, HR15T, HR30N, HR30T, HR45N, HR45T), Shore(HS) and Strength(MPa)
- Memory of 27 measurement values for print, browsing and output
- LCD display with backlight
- Can measure Knoop hardness, Knoop indenter is needed

SPECIFICATION

Code		ISH-DV10	ISH-DV50
Measuring range		8HV0.3 ~ 2500HV10	5HV1 ~ 2500HV50
Test force		0.3, 0.5, 1, 3, 5, 10kgf	1, 5, 10, 20, 30, 50kgf
Accuracy		±3%	±3% (test force 1, 5, 10, 20kgf) ±2% (test force 30, 50kgf)
Eyepiece	magnification	10X	10X
	resolution	0.0625μm	0.25μm
Objective		10X, 20X	10X
Total magnification		100X (for observation) 200X (for measuring)	100X (for measuring)
Stage elevation		manual	
Load control		automatic (load/dwell/unload)	
Dwell time		5 ~ 60 second	
Max. workpiece height		160mm	
Max. workpiece depth		135mm	
Data output		RS232C	
Power supply*		220V, 50/60Hz	
Dimension		540×270×650mm	
Weight		35kg	45kg

STANDARD DELIVERY

Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Vickers indenter	1 pc
10X objective	1 pc
20X objective	1 pc (for ISH-DV10)
Vickers test block	2 pcs
Anti-dust cover	1 pc

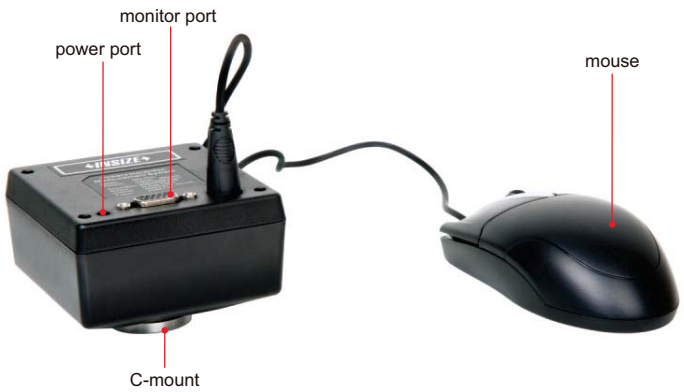
OPTIONAL ACCESSORY

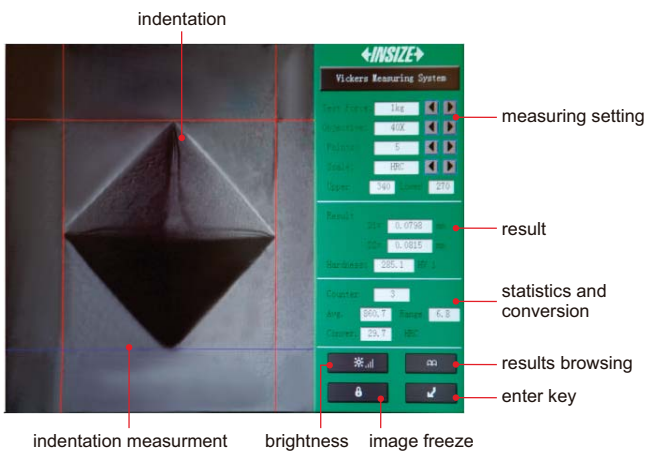
Knoop indenter	ISH-KNOOP
Measuring system	ISH-HVC
Hardness test block 400-500HV5	ISH-BHV5B
Hardness test block 400-500HV10	ISH-BHV10A
Hardness test block 400-500HV30	ISH-BHV30

*Add “-U” on code No. when power supply is 110V, 50/60Hz

COMPUTER IS NOT NEEDED

VICKERS HARDNESS MEASURING SYSTEM
CODE ISH-HVC





application example

- Computer is not needed. Use mouse to measure on monitor
- Set measuring times (maximum 9) to have average value and the difference of max. and min. value
- Convert to HRA, HRB, HRC, HB, HR45T, HR45N, HR30T, HR30N, HR15T, HR15N
- Memory of 9 last results for browsing
- Result can be printed automatically (wireless printer is optional)
- Hardness block calibration
- Tolerance measurement with alarm
- Image freeze function eliminates error due to vibration

SPECIFICATION

Sensor	1/2" CMOS
Pixel	2M (resolution 800×600)
Hardness measurement resolution	0.1HV
Length measurement resolution	0.1μm
Length measurement accuracy	±0.5% (diagonal length of indentation)
Test force	0.01, 0.025, 0.05, 0.1, 0.2, 0.3, 0.5, 1 2, 2.5, 3, 5, 10, 20, 30, 50, 100, 120kgf
Objective	1X, 2X, 4X, 10X, 20X, 40X
Dimension	120×68×55mm
Weight	500g

wireless printer (optional)

STANDARD DELIVERY

Main unit	1pc
Mouse	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Wireless printer	**ISH-DS-PRINTER**

PORTABLE LEEB HARDNESS TESTER
CODE ISH-SPHA

MANUFACTURER INSPECTION CERTIFICATE

DATA OUTPUT

included

printer

hardness test block D

small support ring

- Based on Leeb(HL), converted to Vickers(HV), Brinell(HB), Rockwell(HRC and HRB), Shore(HS) and tensile strength(MPa)
- Connected with printer via bluetooth
- Connected with computer via USB port
- Up to 800 test results can be saved
- Low and high limits with judgement
- Touch screen operation, large display with backlight
- Language: English, Chinese, Italian, German, French and Portuguese
- Automatic power off
- According to ASTM A 956

SPECIFICATION

Min. reading	1HL, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa
Accuracy	±6HL (when HL=800)
Display	Leeb(HL), converted hardness, material, impact direction, test times, average value, deviation, time
Output	bluetooth and USB
Power supply	built-in rechargeable battery
Dimension	135×83×24mm
Weight	350g

STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Printer	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc
AC/DC adapter	1pc
USB cable and software disc	1pc of each
Pen for touch screen	1pc

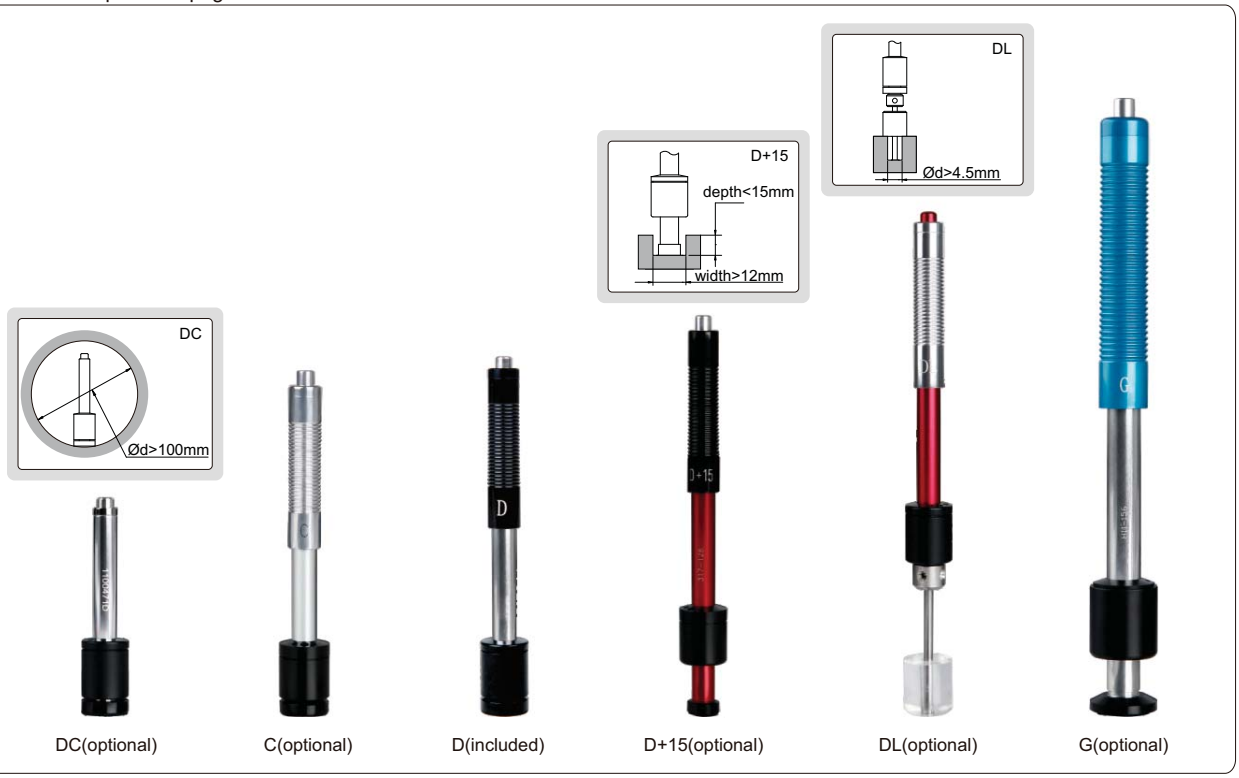
OPTIONAL ACCESSORY

Impact device DC	**ISH-SPHA-DC**
Impact device C	**ISH-SPHA-C**
Impact device D+15	**ISH-SPHA-D15**
Impact device DL	**ISH-SPHA-DL**
Impact device G	**ISH-SPHA-G**
Hardness test block D**	**ISH-BHLD**
Hardness test block G**	**ISH-BHLG**
Couplant	**ISH-COUPLANT**
Support rings	page 362

** Hardness test block G (ISH-BHLG) is for impact device G (ISH-SPHA-G).
Hardness test block D (ISH-BHLD) is for all others impact devices.

To be continued

Continued from previous page



APPLICABLE WORKPIECE

Impact device		DC	C	D	D+15	DL	G
Application		inner wall of small space	small or thin workpiece, coating layer	general use	deep groove	narrow slot or small hole	casting or forging workpiece
Maximum roughness of workpiece (Ra)		1.6μm	0.4μm	1.6μm	1.6μm	1.6μm	7μm
Minimum weight of workpiece	direct measurement	5kg	1.5kg	5kg	5kg	5kg	15kg
	on solid support	2kg	0.5kg	2kg	2kg	2kg	5kg
	coupled on plate	0.1kg	0.02kg	0.1kg	0.1kg	0.1kg	0.5kg
Minimum thickness of workpiece		5mm	1mm	5mm	5mm	5mm	10mm

APPLICABLE MATERIAL AND HARDNESS RANGE

Material	Scale	DC	C	D	D+15	DL	G
Steel & cast steel	HRC	20-68	20-69.5	20-68	19.3-67.9	20.6-68.2	
	HRB	38-100	38.4-99.5	38-100		37.0-99.9	47.7-99.9
	HB	81-654	80-683	81-654	80-638	81-646	90-646
	HV	81-955	80-996	81-955	180-818	80-950	
	HS	32-100	32-102	32-100	33-99	31-97	
	Tensile strength (MPa)			375-2639			
Cast iron	HB	93-334		93-334			92-326
	HV						
	HRC						
Tool steel	HRC	20-67		20-67			
	HV	80-898		80-898			
Stainless steel	HRB	46-101		46-101			
	HV	85-802		85-802			
	HB	85-655		85-655			
Cast aluminum alloy	HB	19-164		19-164			
	HRB	23-84		23-84			
Brass	HB	40-173		40-173			
	HRB	13-95		13-95			
Bronze	HB	60-290		60-290			
Copper	HB	45-315		45-315			

PORTABLE LEEB HARDNESS TESTER
CODE ISH-PHA

MANUFACTURER INSPECTION CERTIFICATE

- Supplied with impact device D
- Based on Leeb(HLD), converted to Vickers(HV), Brinell(HB), Rockwell(HRC and HRB), Shore(HS) and tensile strength(MPa)
- Connected with printer via bluetooth
- LCD display with backlight
- Automatic power off
- According to ASTM A 956

included

printer

hardness test block D

small support ring

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	±6HLD(when HLD=800)	
Display	Leeb(HLD), converted hardness, material, impact direction, test times, average value, date	
Output	bluetooth	
Applicable workpiece	minimum weight	5kg (direct measurement)
		2kg (on solid support)
		0.1kg (coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 11mm	
	maximum roughness (Ra): 1.6μm	
Power supply	3×AAA batteries	
Dimension	150×80×24mm	
Weight	200g	

STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Printer	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Couplant	**ISH-COUPLANT**
Support rings	page 362
Hardness test block D	**ISH-BHLD**

APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS	Tensile strength (MPa)
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100	375-2639
Tool steel	300-840	80-898		20-67			
Stainless steel	300-800	85-802	85-655		46-101		
Cast iron	360-650		93-334				
Cast aluminum alloy	170-570		19-164		23-84		
Brass	200-550		40-173		13-95		
Bronze	300-700		60-290				
Copper	200-690		45-315				

hardness test block D (included)

small support ring (included)

wireless printer (optional)

PORTABLE LEEB HARDNESS TESTER
CODE ISH-PHB

- Supplied with impact device D
- Set measurement times (1~9) to have average value
- Based on Leeb(HLD), converted to Vickers(HV), Brinell(HB), Rockwell(HRC and HRB), Shore(HS) and tensile strength(MPa)
- Memory of 99 measurement values for browsing
- Connected with printer via bluetooth
- Automatic power off
- According to ASTM A 956

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	±6HLD (when HLD=800)	
Display	Leeb(HLD), converted hardness, material, impact direction, test times, average value, date	
Output	bluetooth	
Applicable workpiece	minimum weight	5kg
		2kg (on solid support)
		0.1kg (coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 11mm	
	maximum roughness(Ra): 1.6μm	
Power supply	3×AAA batteries	
Dimension	150×84×28mm	
Weight	200g	

STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc

OPTIONAL ACCESSORY

Wireless printer	**ISH-DS-PRINTER**
Couplant	**ISH-COUPLANT**
Support rings	page 362
Hardness test block D	**ISH-BHLD**

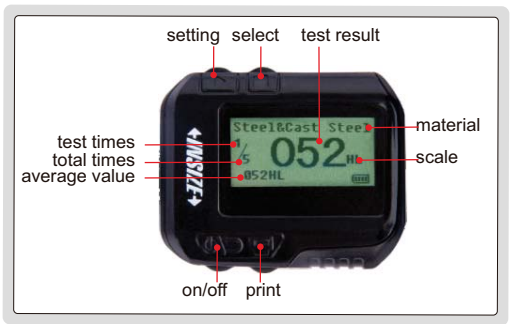
APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS	Tensile strength(MPa)
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100	375-2639
Tool steel	300-840	80-898		20-67			
Stainless steel	300-800	85-802	85-655		46-101		
Cast iron	360-650		93-334				
Cast aluminum alloy	170-570		19-164		23-84		
Brass	200-550		40-173		13-95		
Bronze	300-700		60-290				
Copper	200-690		45-315				

PORTABLE LEEB HARDNESS TESTER
CODE ISH-SPHD

MANUFACTURER INSPECTION CERTIFICATE

DATA OUTPUT



- Impact device D
- Based on Leeb(HLD), converted to Vickers(HV), Brinell(HB), Rockwell(HRC and HRB), Shore(HS) and tensile strength(MPa)
- Automatic direction correction
- Connected with printer via bluetooth
- Connected with computer via USB port
- Up to 500 test results can be saved
- According to ASTM A 956

included

printer

hardness test block D

small support ring

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS	
Accuracy	±6HLD (when HLD=800)	
Output	USB and bluetooth	
Applicable workpiece	minimum weight	5kg (direct measurement)
		2kg (on solid support)
		0.1kg (coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 11mm	
	maximum roughness(Ra): 1.6μm	
Power supply	built-in rechargeable battery	
Dimension	147×35×22mm	
Weight	65g	

STANDARD DELIVERY

Main unit	1pc
Printer	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc
AC/DC adapter	1pc
USB cable and software disc	1pc of each

OPTIONAL ACCESSORY

Couplant	**ISH-COUPLANT**
Support rings	page 362
Hardness test block D	**ISH-BHLD**

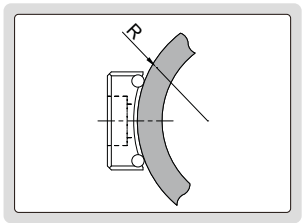
APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100
Tool steel	300-840	80-898		20-67		
Stainless steel	300-800	85-802	85-655		46-101	
Cast iron	360-650		93-334			
Cast aluminum alloy	170-570		19-164		23-84	
Brass	200-550		40-173		13-95	
Bronze	300-700		60-290			
Copper	200-690		45-315			

SUPPORT RINGS FOR PORTABLE LEEB HARDNESS TESTER

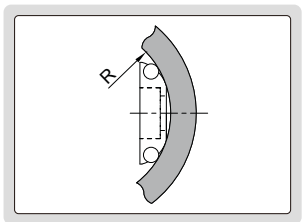
type A

ISH-R1015



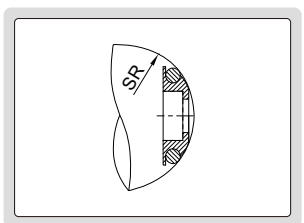
type B

ISH-R1113



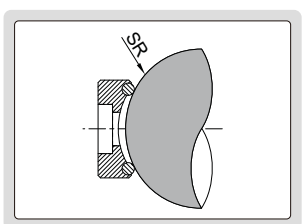
type C

ISH-SR1113



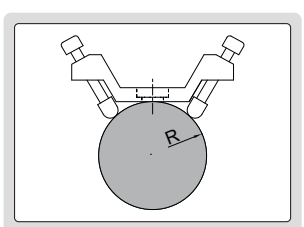
type D

ISH-SR1015



type E

ISH-RUN



SPECIFICATION

Code	Type	Applicable workpiece	Range (mm)
ISH-R1015	A	cylindrical outside surface	R10 - 15
ISH-R14530			R14.5 - 30
ISH-R2550			R25 - 50
ISH-R1113	B	cylindrical inside surface	R11 - 13
ISH-R12517			R12.5 - 17
ISH-R16530			R16.5 - 30
ISH-SR1113	C	spherical inside surface	SR11 - 13
ISH-SR12517			SR12.5 - 17
ISH-SR16530			SR16.5 - 30
ISH-SR1015	D	spherical outside surface	SR10 - 15
ISH-SR14530			SR14.5 - 30
ISH-RUN	E	cylindrical outside surface	R > 10

ULTRASONIC HARDNESS TESTER
CODE ISHU-460

DATA OUTPUT

MANUFACTURER INSPECTION CERTIFICATE

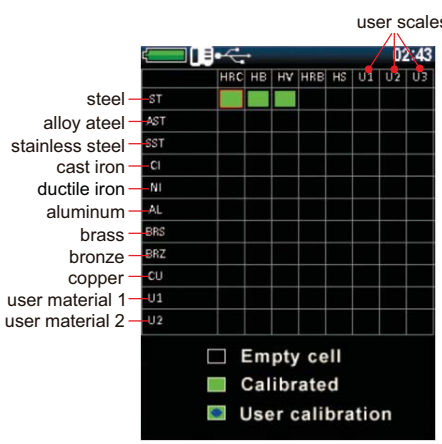
Application:
1. For steel, non-ferrous metal and alloy
2. Can test surface hardening layers(carburized, nitriding, high frequency hardened, etc.) and plating (like chrome plating)
3. Suitable for thin wall or edge of workpieces
4. Suitable for small areas like arc, conical surface and other complex shapes
5. Suitable for small or light workpieces
6. Suitable for narrow spaces, like grooves and blind holes
7. Can test large workpieces at any direction
8. Suitable for rough surfaces

- Small test indentation
- Test force and time are not affected by the operator
- Quick test, only 2 seconds
- Memory of 1000 test results
- Automatic power off
- Anti-dust and waterproof

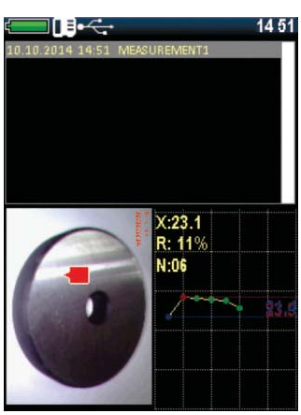
test flat surfaces
(with the cover)

test cylinder surfaces
(use V-groove on the cover)

test narrow areas
(remove the cover)



select the material and scale, use the corresponding standard hardness blocks or workpieces for calibration (calibration of HRC, HB and HV for steel are already made, calibration is needed before use other materials and scales)

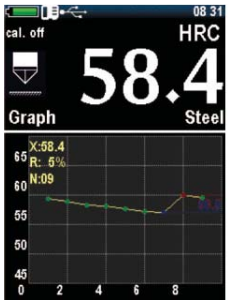


can take a picture on the workpiece and get a report with testing result and picture, the report can be sent to computer

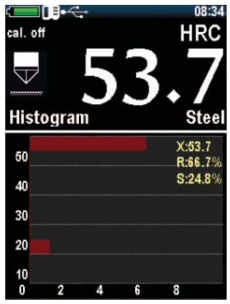
back

To be continued

Continued from previous page



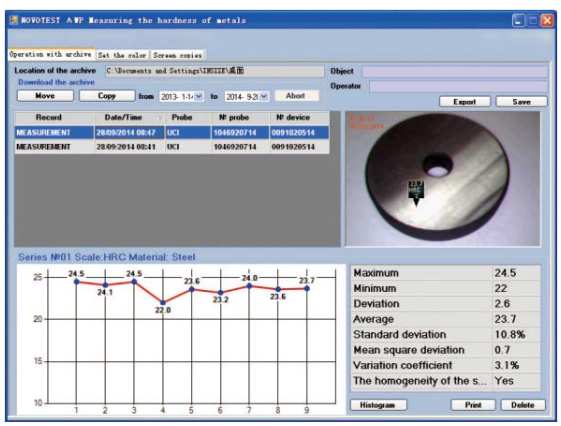
Graph display mode, show average value, relative range and test times



Histogram display mode, show average value, relative range and relative standard deviation

Statistics display mode, show maximum, minimum, deviation, average, relative range and test times

Smart display mode, can set tolerance, automatically reject the result when out of tolerance



software(included), can output data, get and print reports, screen capture, set screen colors of hardness tester

SPECIFICATION

Hardness scale		HV, HB, HRB, HRC, HS
Resolution		1HV, 1HB, 1HRB, 0.1HRC, 1HS
Accuracy	**HB**	±10HB
	HV	±15HV
	HRC	±2HRC
Minimum measuring area		Ø1mm
Data output		USB
Operating temperature		-20°C ~ +40°C
Power supply		built-in rechargeable battery
Dimension and weight of main unit		160×80×40mm, 315g

STANDARD DELIVERY

Main unit	1pc
Probe A	1pc
AC/DC adapter	1pc
USB cable and software	1pc

OPTIONAL ACCESSORY

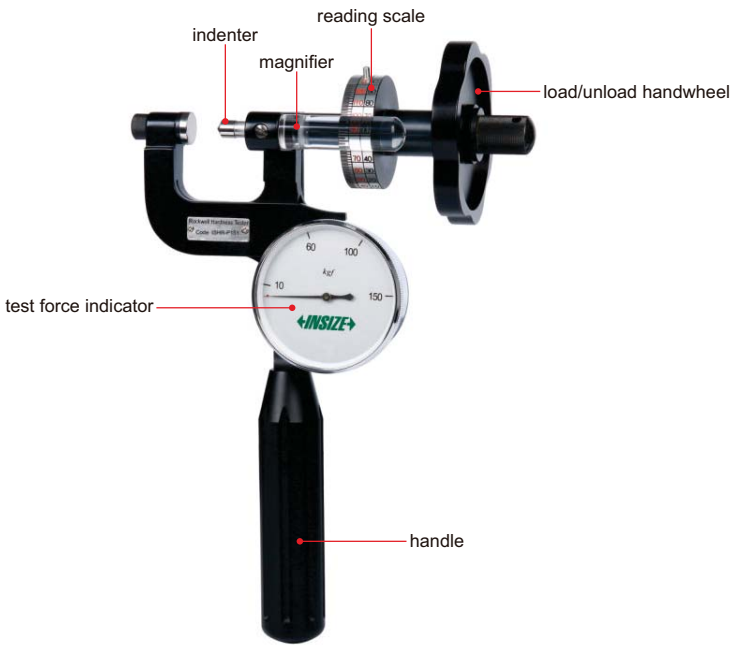
Probe B	**ISHU-460-B**
Couplant	**ISH-COUPLANT**

SPECIFICATION OF PROBE

Type	A(standard)	B(optional)
Measuring force	50N	10N(small force)
Application	general use	plating
Maximum roughness of workpiece (Ra)	2.5μm	1.5μm
Minimum weight of workpiece(direct measurement)	0.1kg*	0.1kg*
Minimum thickness of workpiece(direct measurement)	1mm*	1mm*
Minimum thickness of surface hardening layer or plating	0.1mm	0.03mm
Dimension and weight of probe	140×Ø37mm, 271g	145×Ø37mm, 271g

*If the weight or thickness of workpiece is less than required, the workpiece should be fixed or coupled on solid support.

PORTABLE ROCKWELL HARDNESS TESTER
CODE ISHR-P151



- According to ISO 6508, ASTM E18

flat anvil (included)

V-type anvil (included)

anvil extension for thin workpieces (included)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	10kg
Test force	60kg, 100kg, 150kg
Load control	manual
Min. reading	1HR
Max. workpiece thickness	25mm
Max. workpiece depth	25mm
Dimension	240×70×160mm
Weight (with base)	2.5kg

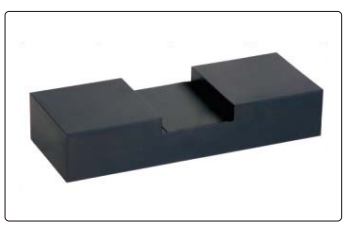
STANDARD DELIVERY

Main unit	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	2pcs
Hardness test block HRC20 ~ 30	1pc
Hardness test block HRC60 ~ 65	1pc
Hardness test block HRB88 ~ 95	1pc

Flat anvil	1pc
V-type anvil	1pc
Base	1pc
Anvil extension	1pc
Magnifier	2pcs

DIGITAL MAGNETIC ROCKWELL HARDNESS TESTER
CODE ISHR-D121

- Apply to large and heavy steel or iron workpieces
- With statistic function, display average, maximum and minimum values
- Convert to HV, HB and tensile strength
- According to ISO 6508, ASTM E18



flat anvil for test block (included)

SPECIFICATION

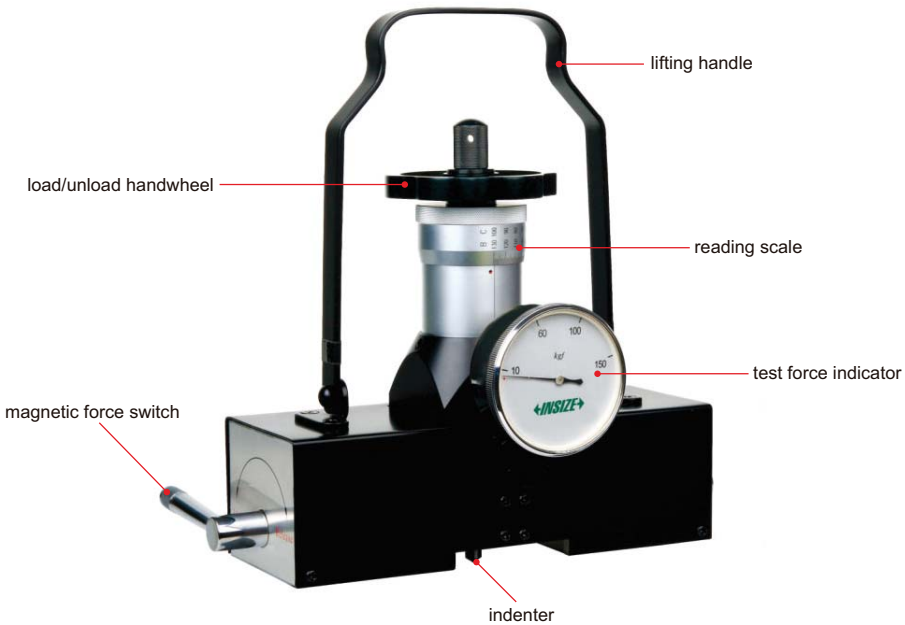
Hardness scale	HRA, HRB, HRC
Preliminary test force	10kg
Test force	60kg, 100kg, 150kg
Load control	manual
Min. reading	0.1HR
Flat workpiece requirement	length>190mm, width>60mm, thickness>5mm
Cylinder or tube workpiece requirement	length>200mm, diameter>Ø50mm, wall thickness>8mm
Power supply	3×AAA batteries
Dimension	245×105×230mm
Weight	5.3kg

STANDARD DELIVERY

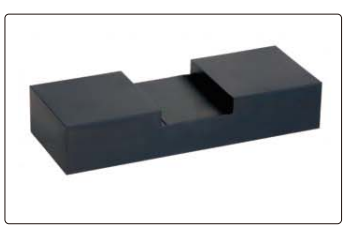
Main unit	1pc
Flat anvil	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	1pc

Hardness test block HRB85-95	1pc
Hardness test block HRC60-70	1pc
Hardness test block HRC20-30	1pc

MAGNETIC ROCKWELL HARDNESS TESTER
CODE ISHR-M111



- Apply to large and heavy steel or iron workpieces
- According to ISO 6508, ASTM E18



flat anvil for test block (included)

supports for cylinder or tube workpieces (included)

magnifier with LED (included)

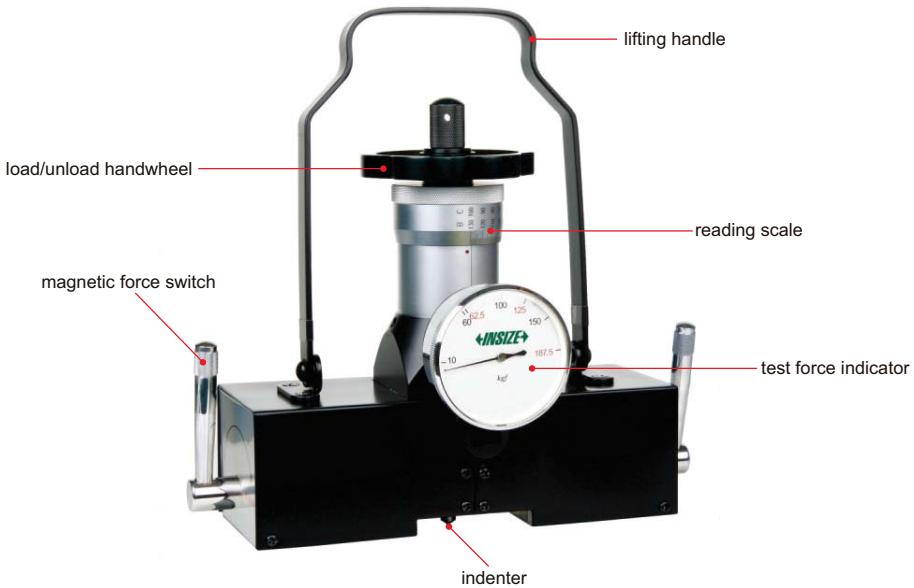
SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	10kg
Test force	60kg, 100kg, 150kg
Load control	manual
Min. reading	1HR
Flat workpiece requirement	length>180mm, width>60mm, thickness>5mm
Cylinder or tube workpiece requirement	length>180mm, diameter>Ø50mm, wall thickness>8mm
Dimension	220×70×220mm
Weight	4.7kg

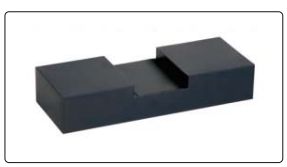
STANDARD DELIVERY

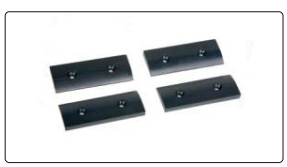
Main unit	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	2pcs
Hardness test block HRC60-70	1pc
Hardness test block HRC20-30	1pc
Hardness test block HRB85-95	1pc
Flat anvil	1pc
Support	4pcs
Magnifier with LED	1pc

MAGNETIC BRINELL/ROCKWELL HARDNESS TESTER
CODE ISHR-B141



- Apply to large steel or iron workpieces
- According to ISO 6508, ASTM E18


flat anvil for test block (included)


supports for cylinder or tube workpieces (included)

magnifier with LED (included)

measuring microscope (included)

SPECIFICATION

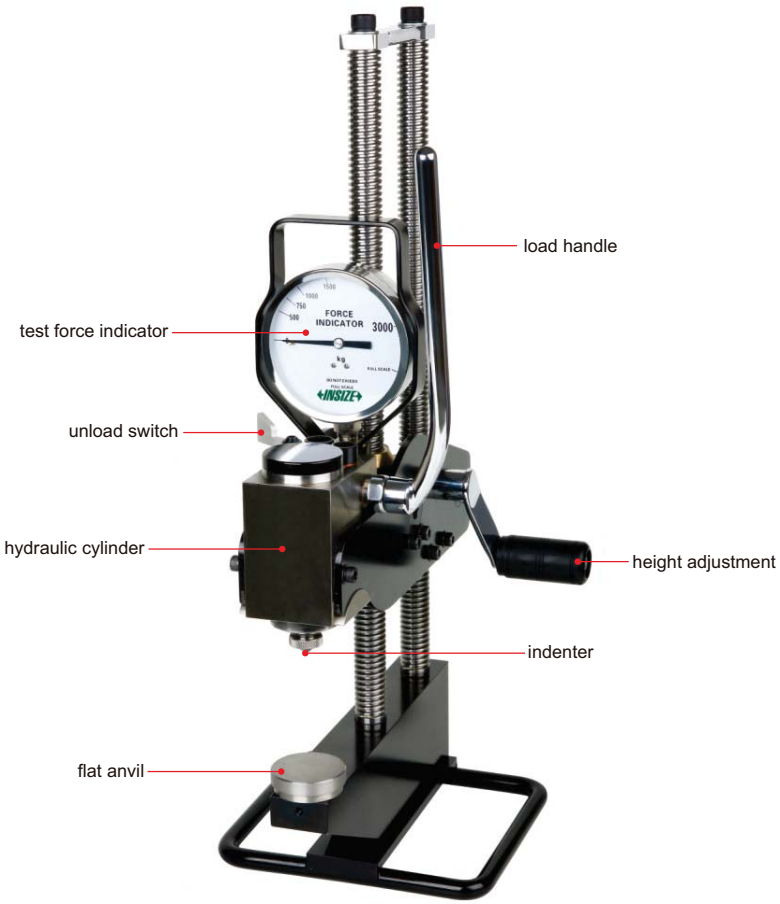
Rockwell scale	HRA, HRB, HRC, HRD, HRF, HRG
Brinell measuring range	20~650HBW
Rockwell test force	10kg preload, 60kg, 100kg, 150kg total load
Brinell test force	62.5kg, 125kg, 187.5kg
Load control	manual
Min. Rockwell reading	1HR
Measuring microscope	40X, graduation 0.01mm
Flat workpiece requirement	length>180mm, width>60mm, thickness>5mm
Cylinder and tube workpiece requirement	length>180mm, diameter>Ø50mm, thickness>8mm
Dimension	220×70×220mm
Weight	4.7kg

STANDARD DELIVERY

Main unit	1pc
Flat anvil	1pc
Support	4pcs
Diamond Rockwell indenter	1pc
Ø1.5875mm carbide ball indenter	1pc
Ø2.5mm Brinell indenter	1pc

Hardness test block HRB85-95	1pc
Hardness test block HRC60-70	1pc
Hardness test block HRC20-30	1pc
Brinell test block	1pc
Measuring microscope	1pc
Magnifier with LED	1pc

HYDRAULIC BRINELL HARDNESS TESTER
CODE ISHB-H131



V-type anvil (included)

spherical anvil (included)

measuring microscope (included)

- According to ISO 6505, ASTM E10

SPECIFICATION

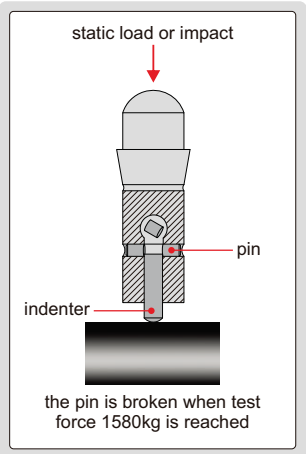
Measuring range	16~650HBW
Test force	3000kg
Indenter	Ø10mm carbide ball
Measuring microscope	20X, graduation 0.01mm
Max. workpiece height	350mm
Max. workpiece depth	90mm (from the center of indenter)
Dimension	270×225×570mm
Weight	13.8kg

STANDARD DELIVERY

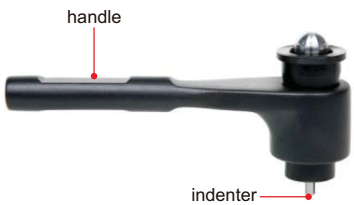
Main unit	1pc
Flat anvil	1pc
V-type anvil	1pc
Spherical anvil	1pc

Ø10mm carbide ball	2pcs
Brinell test block	2pcs
Measuring microscope	1pc

PIN BRINELL HARDNESS TESTER
CODE ISHB-P101



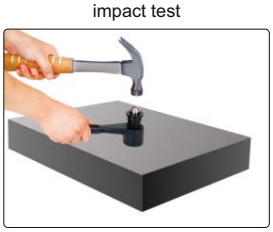
static test clamp



impact test clamp

static test

impact test



- Measure Brinell hardness of large and heavy workpieces
- 1580kg test force and Ø7.26mm ball indenter, equal to 3000kg test force and Ø10mm ball indenter
- Static and impact test modes
- According to ISO and ASTM standard

V-type anvil (included)

pins (included)

measuring microscope (included)

SPECIFICATION

Measuring range	100~350HBW (with Ø7.26mm indenter, included) 350~650HBW (with Ø4mm indenter, optional)
Test force	1580kg
Accuracy	static test: ±3% impact test: ±5%
Measuring microscope	20X, graduation 0.01mm
Max. workpiece height in static test	150mm
Max. workpiece depth in static test	80mm (from the center of indenter)
Dimension	195×60×350mm
Weight	4.2kg

STANDARD DELIVERY

Static test clamp	1pc
Impact test clamp	1pc
Flat anvil	1pc
V-type anvil	1pc
Ø7.26mm indenter	1pc
Hardness test block	1pc
Pin	250pcs
Measuring microscope	1pc

OPTIONAL ACCESSORY

Ø4mm indenter	**ISHB-P101-INDENTER**
Pin (250pcs)	**ISHB-P101-PIN**

WEBSTER HARDNESS TESTER

ISHW-L20

- To measure the hardness of soft metal such as aluminum alloy, copper, brass, soft steel, etc.
- According to ASTM B647-84 (2000)

SPECIFICATION

Code	ISHW-L20	ISHW-L20A	ISHW-L20B	ISHW-B70	ISHW-B75	ISHW-B92
Application	for aluminum alloy general use	for aluminum alloy thick workpiece	for aluminum alloy small tube	for hard aluminum alloy and hard brass	for soft brass and copper	for soft steel and cold-rolled steel
Thickness requirement of flat workpiece	0.6 ~ 6mm	0.6 ~ 13mm	0.6 ~ 8mm	0.6 ~ 6mm	0.6 ~ 6mm	0.6 ~ 6mm
Internal diameter requirement of tube workpiece	>Ø10mm	>Ø10mm	>Ø6mm	>Ø10mm	>Ø10mm	>Ø10mm
Wall thickness requirement of tube workpiece	0.6 ~ 6mm	6 ~ 13mm (internal diameter Ø10 ~ 23.3mm) 0.6 ~ 6mm (internal diameter >Ø23.3mm)	0.6 ~ 8mm	0.6 ~ 6mm	0.6 ~ 6mm	0.6 ~ 6mm
Hardness range	0 ~ 20HW					
Min. reading	1HW					
Accuracy	±0.5HW (at 5 ~ 17HW)					
Dimension	205×30×85mm					
Weight	500g					

STANDARD DELIVERY

Main unit	1pc
Spare indenter	1pc
Hardness test block	1pc
Wrench	1pc

BARCOL HARDNESS TESTER
CODE ISHB-B300

- To measure the hardness of thick workpieces made of pure aluminum aluminum alloy, fiber reinforced plastic, hard plastic, etc.
- According to ASTM B648-00, ASTM D2853-07

SPECIFICATION

Hardness range	0~100HBa (equal to 25~150HBW)
Min. reading	1HBa
Accuracy	±2HBa (at 42~52HBa) ±1HBa (at 84~88HBa)
Min. workpiece thickness	0.8mm
Dimension	142×65×90mm
Weight	500g

STANDARD DELIVERY

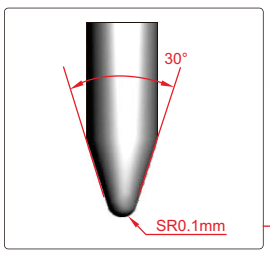
Main unit	1pc
Spare indenter	2pcs
Hardness test block	2pcs
Wrench	1pc

DIGITAL SHORE DUROMETER

DATA OUTPUT

blunt taper indenter

ISH-DSA



sharp point indenter

ISH-DSD

- According to ISO868, ISO7619, ASTM D 2240
- Average and peak (max.) mode
- Dwell time is adjustable
- Low and high limits with judgement
- 500 memories
- Wireless connection to printer
- Handhold use or work with test stand (code **ISH-DS-STAND**)
- Automatic power off

calibration block (included)

printer (optional)

SPECIFICATION

Code	ISH-DSA	ISH-DSD
Unit	Shore A	Shore D
Test material	soft plastic, soft rubber, etc.	hard plastic, hard rubber, etc.
Measuring range*	0~100HA	0~100HD
Resolution	0.1HA	0.1HD
Accuracy	±1HA	±1HD
Indenter protrusion	2.5mm	
Output	wireless and USB	
Power supply	built-in rechargeable battery	
Dimension	153×50×29mm	
Weight	170g	

STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 pc
USB cable and software	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Printer	ISH-DS-PRINTER
Test stand	ISH-DS-STAND
1kg weight block (for ISH-DSA)	ISH-DSA-W1
5kg weight block (for ISH-DSD)	ISH-DSD-W5

* Use **ISH-DSD** when measuring result is higher than 90HA
Use **ISH-DSA** when measuring result is lower than 20HD

TEST STAND FOR DIGITAL SHORE DUROMETER
CODE ISH-DS-STAND

durometer is not included

5kg weight block (optional)
for **ISH-DSD**

- Can perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations
- 1kg weight block is for **ISH-DSA**, 5kg weight block is for **ISH-DSD**

SPECIFICATION

Stage diameter	Ø88mm
Maximum workpiece height	75mm
Dimension	125×163×350mm
Weight	4kg

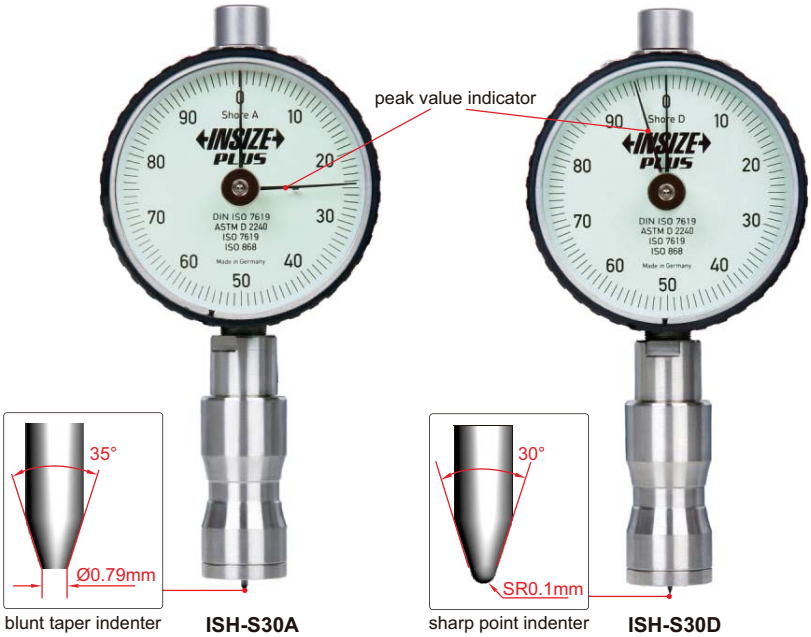
STANDARD DELIVERY

Test stand	1pc
Durometer supporter	1pc

OPTIONAL ACCESSORY

1kg weight block (for ISH-DSA)	**ISH-DSA-W1**
5kg weight block (for ISH-DSD)	**ISH-DSD-W5**

SHORE DUROMETER



- According to ISO868, ISO7619, ASTM D 2240
- With peak value indicator
- Handhold use or work with test stand (code **ISH-OS2**)

SPECIFICATION

Code	ISH-S30A	ISH-S30D
Unit	Shore A	Shore D
Test material	soft plastic, soft rubber, etc.	hard plastic, hard rubber, etc.
Measuring range*	0~100HA	0~100HD
Resolution	1HA	1HD
Accuracy	±0.5HA	±0.5HD
Indenter protrusion	2.5mm	
Bezel diameter	57mm	
Overall height	121mm	
Weight	184g	

*Use **ISH-S30D** when measuring result is higher than 90HA
Use **ISH-S30A** when measuring result is lower than 20HD

HARDNESS TEST BLOCK FOR SHORE DUROMETER

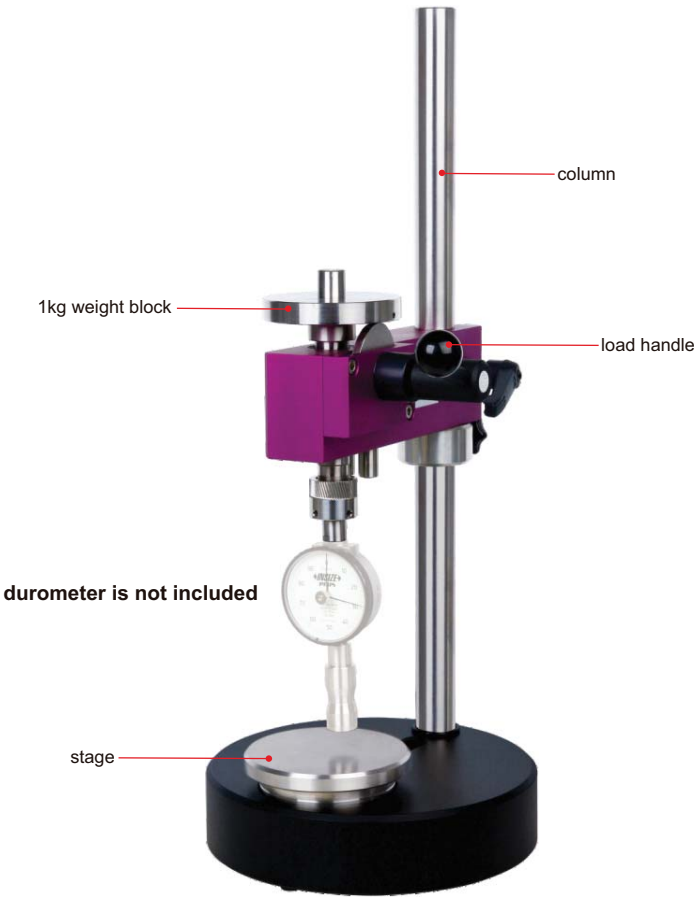
ISH-S30A-BLOCK

ISH-S30D-BLOCK

SPECIFICATION

Code	ISH-S30A-BLOCK	ISH-S30D-BLOCK
Type	Shore A	Shore D
Hardness value	7pcs/set: 30, 40, 50, 60, 70, 80, 90HA	3pcs/set：60, 75, 85HD

TEST STAND FOR SHORE DUROMETER
CODE ISH-OS2



calibration block (included)

4kg weight block (optional)
for **ISH-S30D**

- Can perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations
- Special structure for stable loading
- 1kg weight block is for **ISH-S30A**, 4kg weight block is for **ISH-S30D**

SPECIFICATION

Stage diameter	Ø98mm
Maximum workpiece height	180mm
Maximum workpiece depth	115mm (from test point to column)
Weight block	1kg (for **ISH-S30A**)
Dimension	Ø200×500mm
Weight	18kg

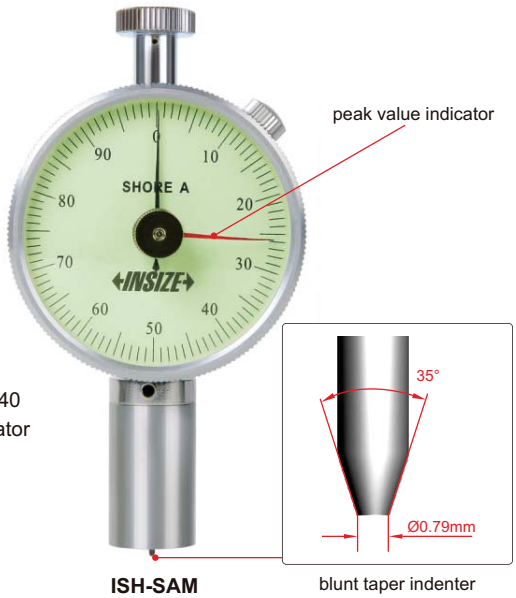
STANDARD DELIVERY

Test stand	1pc
Calibration block	1pc

OPTIONAL ACCESSORY

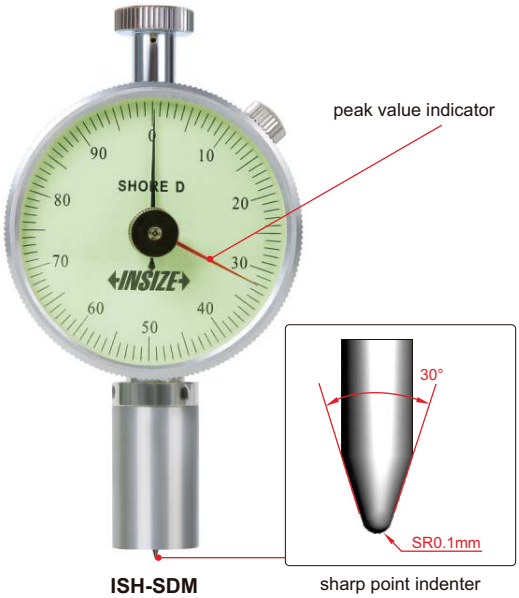
4kg weight block (for ISH-S30D)	**ISH-OS2-W4**

SHORE DUROMETER



ISH-SAM

blunt taper indenter



ISH-SDM

sharp point indenter

- According to ISO868, ISO7619, ASTM D 2240
- With peak value indicator
- Optional accessory: test stand **ISH-STAC** and **ISH-STD**

SPECIFICATION

Code	ISH-SAM	ISH-SDM
Scale	Shore A	Shore D
Application	nature rubber, soft elastomer, etc.	hard rubber, plastic, hard elastomer, etc.
Measuring range*	10~90HA	20~90HD
Graduation	1HA	1HD
Indenter protrusion	2.5mm	
Dimension	115×60×25mm	
Weight	160g	

*Use **ISH-SDM** when measuring result is higher than 90HA
Use **ISH-SAM** when measuring result is lower than 20HD

TEST STAND FOR SHORE DUROMETER

- Can perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations

ISH-STAC

ISH-STD

SPECIFICATION

Code	ISH-STAC	ISH-STD
Applicable durometer	ISH-SAM	ISH-SDM
Stage diameter	Ø100mm	Ø100mm
Maximum workpiece height	75mm	75mm
Weight block	1kg	5kg

DIGITAL FORCE GAGE

MANUFACTURER INSPECTION CERTIFICATE

DATA OUTPUT

ISF-1DF100

- Push and pull test
- Units: N, gf, kgf, ozf, lbf
- 500 memories
- Automatic power off
- Metal case
- LCD display with backlight, can turn 180°
- Overload alarm

push/pull accessory (included)

printer (optional)

SPECIFICATION

Code	ISF-1DF10	ISF-1DF50	ISF-1DF100	ISF-1DF500	ISF-1DF1000
Load capacity (N)	10	50	100	500	1000
Resolution (N)	0.01	0.01	0.1	0.1	1
Accuracy	±0.3% (of load capacity)				
Measuring mode	tracking, peak (max.), low and high limits with judgement				
Power supply	built-in rechargeable battery				
Dimension	150×73×33mm				
Weight	450g				

STANDARD DELIVERY

Main unit	1pc
AC/DC adapter	1pc
USB cable and software	1pc
Push/pull accessory	6pcs (flat push tip, V push tip, knife-edge push tip, point push tip, pull clamp, extension rod)

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
Test stand	ISF-MT1K

DIGITAL FORCE GAGE (HIGH RESOLUTION)

DATA OUTPUT

MANUFACTURER INSPECTION CERTIFICATE

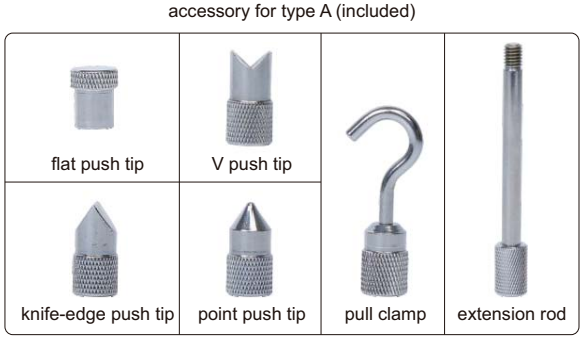
ISF-DF100A type A

ISF-DF5KA type B

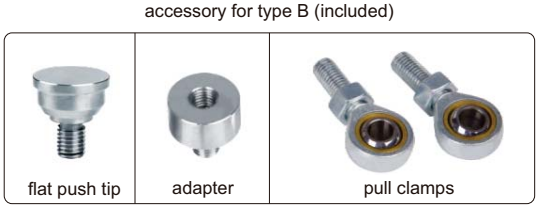
- Push and pull test
- Peak (max.) and tracking mode
- Units: mN, N, gf, kgf, ozf, lbf
- Low and high limits with judgement
- 1000 memories
- Automatic power off
- Metal case, touch buttons
- LCD display with backlight, can automatically turn 180°
- Overload alarm

printer (optional)

accessory for type A (included)



accessory for type B (included)



SPECIFICATION

Code	ISF-DF 5A	ISF-DF 10A	ISF-DF 20A	ISF-DF 50A	ISF-DF 100A	ISF-DF 200A	ISF-DF 500A	ISF-DF 1KA	ISF-DF 2KA	ISF-DF 5KA	ISF-DF 10KA	ISF-DF 20KA
Type	A (internal sensor)								B (external sensor)			
Load capacity (N)	5	10	20	50	100	200	500	1000	2000	5000	10000	20000
Resolution (N)	0.0005	0.001	0.005	0.005	0.01	0.05	0.05	0.1	1	1	10	10
Accuracy	±0.3% (of load capacity)											
Power supply	built-in rechargeable battery											

STANDARD DELIVERY

Code	ISF-DF 5A	ISF-DF 10A	ISF-DF 20A	ISF-DF 50A	ISF-DF 100A	ISF-DF 200A	ISF-DF 500A	ISF-DF 1KA	ISF-DF 2KA	ISF-DF 5KA	ISF-DF 10KA	ISF-DF 20KA
Main unit	1pc								1pc			
AC/DC adapter	1pc								1pc			
USB cable and software	1pc								1pc			
Push/pull accessory	6pcs (flat push tip, V push tip, knife-edge push tip, point push tip, pull clamp, extension rod)								4pcs (flat push tip, adapter, pull clamps)			

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
Test stand	ISF-MT1K

TEST STAND
CODE ISF-MT1K

force gages are not included

digital scale (optional)

horizontal orientation test

- For tensile and compress test with force gages (code **ISF-1DFxx** and **ISF-DFxx**)
- Can be used in vertical and horizontal orientation

SPECIFICATION

Load capacity	1000N
Travel	200mm (3mm vertical movement per revolution of handwheel)
Dimension	196 x 250 x 446mm
Weight	13kg

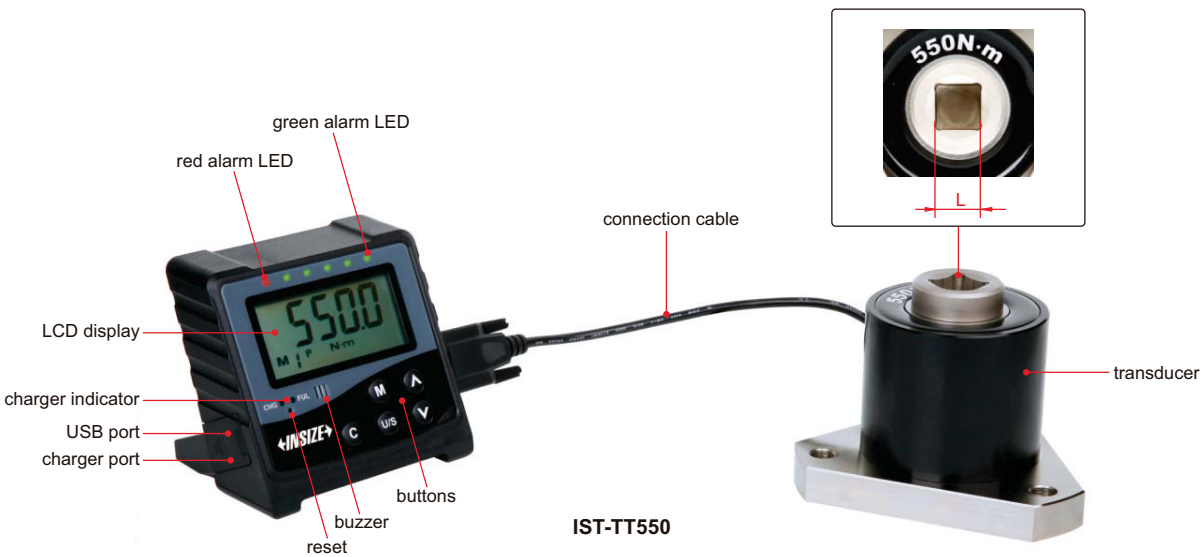
OPTIONAL ACCESSORY

Digital scale (range: 200mm, resolution: 0.01mm/0.0005")	**ISF-MT1K-SCALE**

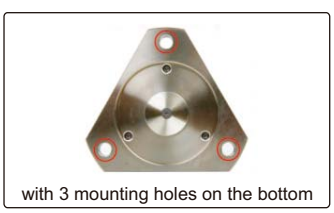
DIGITAL TORQUE TESTER

ATTENTION: NOT SUITABLE FOR ELECTRIC WRENCHES, IMPACTWRENCHES OR PNEUMATIC WRENCHES

DATA OUTPUT



- With external sensor, to test torque wrenches, torque screwdrivers and other torque tools
- Clockwise and counter-clockwise operation
- Peak and track working modes
- Unit: N.m, in.lb, kg.cm
- Target torque value can be set (9 target torque values can be saved and selected quickly), with audible and visible alarm:
  – Green LED light on and buzzer sounds when the value is 90%~100% of target torque
  – Both green and red LED light on and buzzer sounds when the target torque value is reached
- Memory of 250 measurement values for browsing and output
- Power off in 5 minutes automatically


with 3 mounting holes on the bottom

adaptor (included)

SPECIFICATION

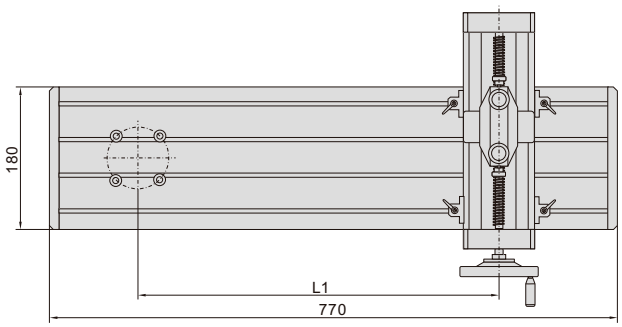
Code	IST-TT5	IST-TT50	IST-TT220	IST-TT550	IST-TT2200
Range	0.5~5N.m	5~50N.m	22~220N.m	55~550N.m	220~2200N.m
Accuracy	±1% (clockwise and counter-clockwise)				
Resolution	0.001N.m	0.01N.m	0.1N.m	0.1N.m	1N.m
Square socket (L)	1/4"	3/8"	1/2"	3/4"	1"
Power supply	built-in rechargeable battery				
Adaptor	no	3/8" to 1/4"	1/2" to 3/8" 3/8" to 1/4"	3/4" to 1/2" 1/2" to 3/8"	1" to 3/4" 3/4" to 1/2"
Transducer dimension	60×60×47mm	89×89×65mm	109×109×73mm	140×140×97mm	160×160×116mm
Weight	0.7kg	1.1kg	1.4kg	2.8kg	4.7kg

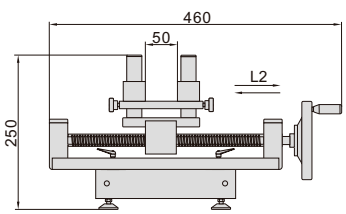
STANDARD DELIVERY

Main unit	1pc
Transducer with 1m cable	1pc
AC/DC adapter	1pc
USB cable and software	1pc
Adaptor	refer to the above

TORQUE WRENCH TEST STAND
CODE IST-TS500

Unit: mm





application example

digital torque tester (optional)

adaptor (optional, for digital torque tester **IST-TT5**, **IST-TT50**, **IST-TT220**)

- Work with digital torque testers (**IST-TT5, IST-TT50, IST-TT220, IST-TT550**)

SPECIFICATION

Digital torque tester	**IST-TT5** (optional)	**IST-TT50** (optional)	**IST-TT220** (optional)	**IST-TT550** (optional)
Applicable torque wrenches	0.5 ~ 5N.m	5 ~ 50N.m	22 ~ 220N.m	220 ~ 340N.m
Arm length (L1)	150 ~ 550mm, adjustable			
Maximum travel (L2)	200mm			
Weight	12kg			

OPTIONAL ACCESSORY

Digital torque tester	**IST-TT5**, **IST-TT50**, **IST-TT220**, **IST-TT550**
Adaptor	**IST-TS500-BLOCK** (necessary for **IST-TT5**, **IST-TT50** and **IST-TT220**, not needed for **IST-TT550**)

DIGITAL BOTTLE CAP TORQUE TESTER

DATA OUTPUT

- Measure the open and tighten torque of bottle cap
- Units: N.m, N.cm,kgf.cm, lbf.in, lbf.ft
- 1500 memories
- Wireless connection to printer
- Automatic power off
- LCD display with backlight
- Overload alarm
- With calibration function

IST-DCT20

two display modes

data mode

graph mode

printer (optional)

SPECIFICATION

Code	IST-DCT2	IST-DCT5	IST-DCT10	IST-DCT20
Load capacity	2N.m	5N.m	10N.m	20N.m
Resolution	0.001N.m	0.001N.m	0.01N.m	0.01N.m
Clamping range	Ø19.5~190mm			
Accuracy	±0.5% (of load capacity)			
Measuring mode	tracking, peak (max.), first peak, double peak, low and high limits with judgement			
Output	wireless and USB			
Power supply	built-in rechargeable battery			
Dimension	200×197×142mm			
Weight	2.5kg			

STANDARD DELIVERY

Main unit	1pc
AC/DC adapter	1pc
USB cable and software	1pc

OPTIONAL ACCESSORY

Printer	ISH-DS-PRINTER

DIGITAL TORQUE SCREWDRIVER

IST-SD200

MANUFACTURER INSPECTION CERTIFICATE

- Clockwise and counter-clockwise operation
- Unit: cN.m, in.lb, kg.cm
- Peak and track working mode
- Target torque value can be set, with audible and visible alarm:
  - Green LED light on and buzzer sounds when target torque value is 90%~100% of target torque
  - Red LED light on and buzzer sounds when target torque value is reached
- Power off automatically in 5 minutes without any operations

SPECIFICATION

Code		IST-SD50	IST-SD200	IST-SD400
Range		10~50cN.m	40~200cN.m	80~400cN.m
Accuracy	clockwise	±3%	±2.5%	±2.5%
	counter-clockwise	±4%	±3.5%	±3.5%
Resolution		0.1cN.m	0.1cN.m	0.1cN.m
Size of shank (L)		1/4"	1/4"	1/4"
Power supply		1×AAA battery		
Length		193mm	203mm	203mm
Weight		190g	200g	200g

OPTIONAL ACCESSORY

Calibration cable	IST-SD-CABLE

SMALL RANGE DIGITAL TORQUE WRENCH

IST-WP20

MANUFACTURER INSPECTION CERTIFICATE

- Clockwise and counter-clockwise operation
- Unit: N.m, in.lb, ft.lb, kg.cm
- Peak and track working mode
- Target torque value can be set, with audible and visible alarm:
  - Green LED light on and buzzer sounds when target torque value is 90%~100% of target torque
  - Red LED light on and buzzer sounds when target torque value is reached
- Power off automatically in 5 minutes without any operations
- Non-slip grip handle
- With overload record (once the torque reaches 110% of the maximum range)

SPECIFICATION

Code		IST-WP12	IST-WP20
Range		2.4~12N.m	4~20N.m
Accuracy	clockwise	±3%	±3%
	counter-clockwise	±4%	±4%
Resolution		0.01N.m	0.01N.m
Square driver (L)		1/4"	1/4"
Power supply		1×AAA battery	
Length		260mm	260mm
Weight		430g	430g

OPTIONAL ACCESSORY

Calibration cable	IST-W-CABLE

SHORT HANDLE DIGITAL TORQUE WRENCH

MANUFACTURER INSPECTION CERTIFICATE

IST-WS60

- Clockwise and counter-clockwise operation
- Unit: N.m, in.lb, ft.lb, kg.cm
- Peak and track working mode
- Target torque value can be set, with audible and visible alarm:
  – Green LED light on and buzzer sounds when torque value is 90%~100% of target torque
  – Both green and red LED light on and buzzer sounds when target torque value is reached
- Power off in 5 minutes automatically
- Non-slip grip handle
- With damp record
- With overload record (once the torque reaches 110% of the maximum range)

SPECIFICATION

Code		IST-WS30	IST-WS30A	IST-WS60	IST-WS85
Range		6~30N.m	6~30N.m	12~60N.m	17~85N.m
Accuracy	clockwise	±3%			
	counter-clock wise	±4%			
Resolution		0.01N.m	0.01N.m	0.01N.m	0.1N.m
Square driver (L)		1/4"	3/8"	3/8"	3/8"
Power supply		2×AAA batteries			
Length		215mm	215mm	225mm	271mm
Weight		750g	830g	917g	1000g

OPTIONAL ACCESSORY

Calibration cable	IST-WS-CABLE

DIGITAL TORQUE WRENCH

MANUFACTURER INSPECTION CERTIFICATE

IST-W135A

- Clockwise and counter-clockwise operation
- Unit: N.m, in.lb, ft.lb, kg.cm
- Peak and track working mode
- Target torque value can be set, with audible and visible alarm:
  – Green LED light on and buzzer sounds when torque value is 90%~100% of target torque
  – Both green and red LED light on and buzzer sounds when target torque value is reached
- Power off automatically in 5 minutes without any operations
- Non-slip grip handle
- With overload record (once the torque reaches 110% of the maximum range)

SPECIFICATION

Code	Range	Accuracy	Resolution	Square driver (L)	Power supply	Length	Weight
IST-W30A	6~30N.m	clockwise: ±2% counter-clockwise: ±3%	0.01N.m	1/4"	2×AA batteries	390mm	830g
IST-W135A	27~135N.m		0.1N.m	3/8"		415mm	950g
IST-W200A	40~200N.m		0.1N.m	1/2"		530mm	1.4kg
IST-W340A	68~340N.m		0.1N.m	1/2"		650mm	1.6kg
IST-W500A	100~500N.m	clockwise: ±2.5% counter-clockwise: ±3.5%	0.1N.m	3/4"		950mm	2.1kg
IST-W850A	170~850N.m		0.1N.m	3/4"		1220mm	2.55kg
IST-W1200A	240~1200N.m		1N.m	1"		1800mm	13kg
IST-W1500A	300~1500N.m		1N.m	1"		1800mm	13kg
IST-W2000A	400~2000N.m		1N.m	1"		1800mm	14kg

OPTIONAL ACCESSORY

Calibration cable	**IST-W-CABLE**

DIGITAL ANGLE TORQUE WRENCH

MANUFACTURER INSPECTION CERTIFICATE

IST-1W135A

- Clockwise and counter-clockwise operation
- Set the desired torque first. After reaching the desired torque, set the angle and turn the wrench at this angle to apply extra torque
- Unit: N.m, in.lb, ft.lb, kg.cm, degree
- Peak and track working mode
- Target torque or angle value can be set, with audible and visible alarm:
  - Green LED light on and buzzer sounds when torque or angle value is 90%~100% of target torque or angle
  - Both green and red LED light on and buzzer sounds when target torque or angle value is reached
- Power off in 5 minutes automatically
- Non-slip grip handle
- With damp record
- With overload record (once the torque reaches 110% of the maximum range)

Set the desired torque first. After reaching the desired torque, set the angle and turn the wrench at this angle to apply extra torque

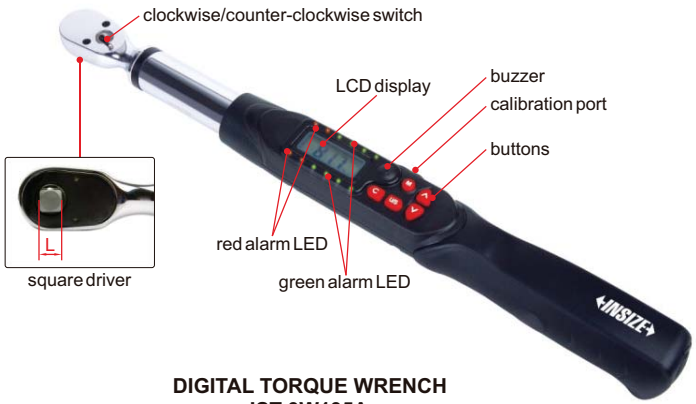
SPECIFICATION

Code		IST-1W30A	IST-1W135A	IST-1W200A	IST-1W340A
Range	torque	6~30N.m	27~135N.m	40~200N.m	68~340N.m
	angle	0~999°			
Accuracy	clockwise	±2%			
	counter-clock wise	±3%			
	angle	±2° (rotate 90°)			
Resolution	torque	0.01N.m	0.1N.m	0.1N.m	0.1N.m
	angle	1°			
Square driver (L)		1/4"	3/8"	1/2"	1/2"
Power supply		2xAA batteries, for 110 hours working			
Length		390mm	415mm	530mm	650mm
Weight		830g	950g	1400g	1600g

OPTIONAL ACCESSORY

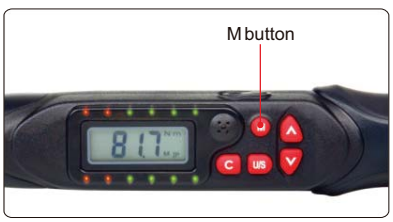
Calibration cable	IST-1W-CABLE

WIRELESS DATA TRANSFER DIGITAL TORQUE WRENCH



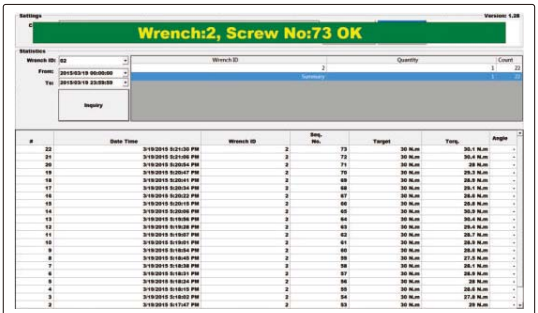
DIGITAL TORQUE WRENCH
IST-3W135A

RECEIVER
IST-3WREC



up to 10 pcs torque wrench can be connected to one receiver, the maximum working distance is 300m

- Wireless data transfer to computer
- Unit: N.m, in.lb, ft.lb, kg.cm
- Clockwise and counter-clockwise operation
- Peak and track working mode
- Can set tolerance with judgement in peak working mode
- 9 target torque values can be set, with audible and visible alarm:
  - Green LED light on and buzzer sounds when torque value is 80% ~ 99.5% of target torque
  - Both green and red LED light on and buzzer sounds when torque value is over 99.5% of target torque
- Power off in 2 minutes automatically
- Non-slip grip handle
- With damp record
- With overload record (once the torque reaches 110% of the maximum range)



press “M” button to transfer data to computer when test value is within the tolerance

DIGITAL TORQUE WRENCH SPECIFICATION

Code		IST-3W30A	IST-3W135A	IST-3W200A	IST-3W340A
Range		6~30N.m	27~135N.m	40~200N.m	68~340N.m
Accuracy	clockwise	±2%			
	counter-clock wise	±3%			
Tolerance setting range		-25%~+25% (target torque value)			
Resolution		0.01N.m	0.1N.m	0.1N.m	0.1N.m
Square driver (L)		1/4"	3/8"	1/2"	1/2"
Working frequency		ISM433MHz (432.0~433.8MHz, adjustable)			
Power supply		2xAA batteries, for 110 hours working			
Length		390mm	415mm	530mm	650mm
Weight		760g	940g	1340g	1540g

RECEIVER SPECIFICATION

Code	IST-3WREC
Working frequency	ISM433MHz (432.0 ~ 433.8MHz adjustable)
Power supply	DC 24V, 0.5A
Dimension	200×108×31mm
Weight	500g

OPTIONAL ACCESSORY

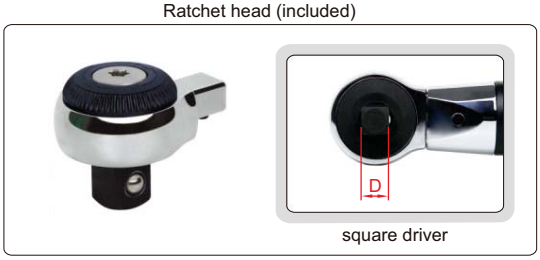
Calibration cable	IST-3W-CABLE

INTERCHANGEABLE HEAD DIGITAL TORQUE WRENCH

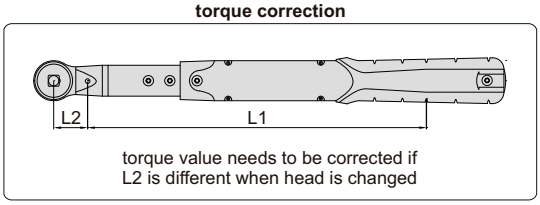
MANUFACTURER INSPECTION CERTIFICATE

- Clockwise and counter-clockwise operation
- Unit: N.m, in.lb, ft.lb, kg.cm, degree
- Peak and track working mode
- Target torque value can be set, with audible and visible alarm:
  – Green LED light on and buzzer sounds when torque value is 90%~100% of target torque
  – Both green and red LED light on and buzzer sounds when target torque value is reached
- Power off in 5 minutes automatically without any operations
- Non-slip grip handle
- With damp record
- With overload record
  (once the torque reaches 110% of the maximum range)

Ratchet head (included)



torque correction



torque value needs to be corrected if L2 is different when head is changed

SPECIFICATION

Code		IST-2W30A	IST-2W135A	IST-2W200A	IST-2W340A
Range		6 ~ 30N.m	27 ~ 135N.m	40 ~ 200N.m	68 ~ 340N.m
Accuracy	clockwise	±2%			
	counter-clock wise	±3%			
Resolution		0.01N.m	0.1N.m	0.1N.m	0.1N.m
Socket size (A×B)		12×9mm	12×9mm	18×14mm	18×14mm
Arm length (L1)		272.7mm	287.7mm	381.2mm	501.2mm
Power supply		2xAA batteries, for 110 hours working			
Weight		1400g	1570g	2170g	2320g

RATCHET HEAD (included) SPECIFICATION

Code of torque wrench	IST-2W30A	IST-2W135A	IST-2W200A	IST-2W340A
Square driver (D)	1/4"	3/8"	1/2"	1/2"
Length (L2)	29mm	29mm	40mm	40mm

STANDARD DELIVERY

Torque wrench	1 pc
Ratchet head	1 pc

OPTIONAL ACCESSORY

Calibration cable	IST-1W-CABLE
Interchangeable head	refer to next page

To be continued

Continued from previous page

INTERCHANGEABLE HEAD DIGITAL TORQUE WRENCH

Ratchet head (optional)

Code	Square driver (D)	Applicable wrenches
IST-2W-R1	1/4"	IST-2W30A
IST-2W-R2	3/8"	IST-2W135A
IST-2W-R3	1/2"	IST-2W135A
IST-2W-R4	1/2"	IST-2W200A IST-2W340A

ADJUSTABLE SPANNER HEAD (optional)

Code	Open size	Applicable wrenches
IST-2W-A1	5 ~ 27mm	IST-2W135A
IST-2W-A2	5 ~ 30mm	IST-2W200A
IST-2W-A3	10 ~ 41mm	IST-2W340A

OPEN END HEAD (optional)

Code	Open size	Applicable wrenches
IST-2W-K7	7mm	IST-2W30A IST-2W135A
IST-2W-K8	8mm	
IST-2W-K9	9mm	
IST-2W-K10	10mm	
IST-2W-K11	11mm	
IST-2W-K12	12mm	
IST-2W-K13	13mm	
IST-2W-K14	14mm	
IST-2W-K15	15mm	
IST-2W-K16	16mm	
IST-2W-K17	17mm	
IST-2W-K18	18mm	
IST-2W-K19	19mm	
IST-2W-K13A	13mm	IST-2W200A IST-2W340A
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IST-2W-K15A	15mm	
IST-2W-K16A	16mm	
IST-2W-K17A	17mm	
IST-2W-K18A	18mm	
IST-2W-K19A	19mm	
IST-2W-K21A	21mm	
IST-2W-K22A	22mm	
IST-2W-K24A	24mm	

BOX END HEAD (optional)

Code	Open size	Applicable wrenches
IST-2W-M7	7mm	IST-2W30A IST-2W135A
IST-2W-M8	8mm	
IST-2W-M10	10mm	
IST-2W-M11	11mm	
IST-2W-M12	12mm	
IST-2W-M13	13mm	
IST-2W-M14	14mm	
IST-2W-M15	15mm	
IST-2W-M16	16mm	
IST-2W-M17	17mm	
IST-2W-M18	18mm	
IST-2W-M19	19mm	
IST-2W-M21	21mm	
IST-2W-M22	22mm	
IST-2W-M13A	13mm	IST-2W200A IST-2W340A
IST-2W-M14A	14mm	
IST-2W-M15A	15mm	
IST-2W-M16A	16mm	
IST-2W-M17A	17mm	
IST-2W-M18A	18mm	
IST-2W-M19A	19mm	
IST-2W-M21A	21mm	

TORQUE WRENCH

ACCURACY ±3%

ATTENTION: CLOCKWISE OPERATION ONLY

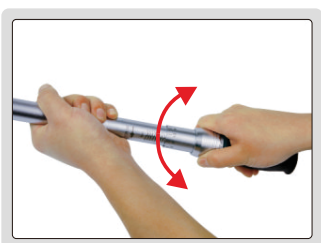
MANUFACTURER INSPECTION CERTIFICATE

IST-2WM100

- According to DIN ISO 6789, ASME B107.300-2010

Set torque:

step 1: unlock



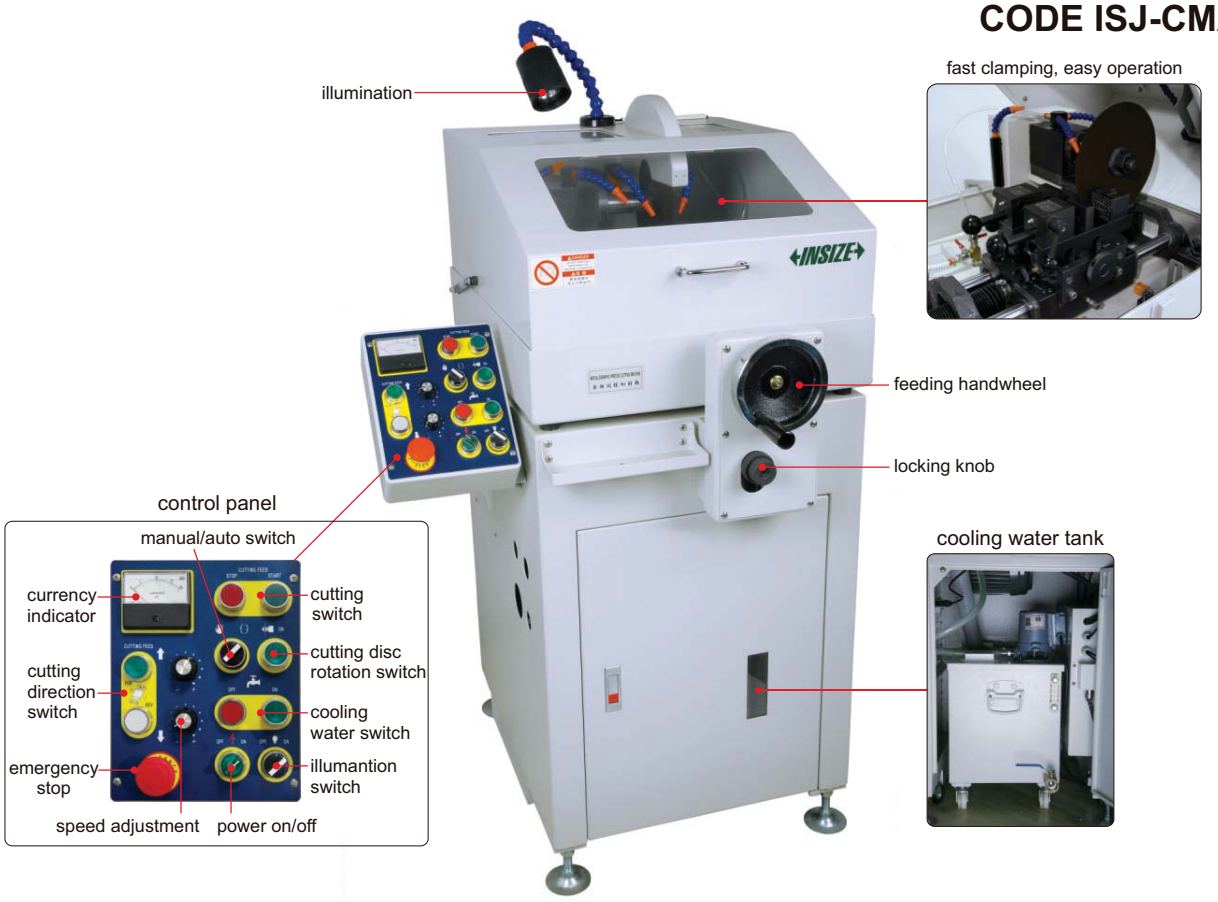
step 2: set

step 3: lock

SPECIFICATION

Code	IST-2WM25	IST-2WM60	IST-2WM100	IST-2WM200	IST-2WM340	IST-2WM600	IST-2WM800
Range (clockwise)	5~25N.m	10~60N.m	20~100N.m	40~200N.m	60~340N.m	100~600N.m	150~800N.m
Accuracy	±3%	±3%	±3%	±3%	±3%	±3%	±3%
Graduation	0.2N.m	0.5N.m	0.5N.m	1N.m	2N.m	5N.m	5N.m
Square driver (D)	1/4"	3/8"	3/8"	1/2"	1/2"	3/4"	3/4"
Length	281mm	337mm	436mm	512mm	614mm	1050mm	1240mm
Weight	590g	760g	1320g	1580g	1800g	5030g	6110g

PRECISION CUTTING MACHINE
CODE ISJ-CMA35



- Low noise
- Manual and automatic mode switch
- Built-in recycling water cooling system
- Ball bearing for long working life
- With currency overload protection

cutting blade

coolant

wrench

SPECIFICATION

Maximum cutting diameter	Ø35mm
Maximum cutting depth	200mm
Diameter of cutting blade	Ø255mm
Hole diameter of cutting blade	Ø31.75mm
Feeding method	manual or automatic
Rotating speed	2500rpm
Power supply	AC 380V, 50Hz, 900W
Dimension	830×900×1300mm
Weight	226kg

STANDARD DELIVERY

Main unit	1pc
Cutting blade	2pcs
Coolant	3 bottles
Wrench	2pcs

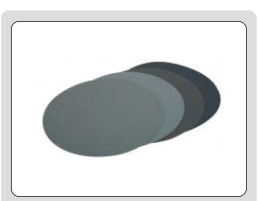
OPTIONAL ACCESSORY

Cutting blade	**ISJ-CMA35-CUT**
Coolant	**ISJ-CMA35-COLT**

GRINDER AND POLISHER
CODE ISJ-PMA200

- Low noise
- With motor overload protection

aluminum oxide powder


silicon carbide paper

polishing cloth

SPECIFICATION

Quantity of platen	2
Grinding method	manual
Platen diameter	Ø200mm
Rotation speed	50~600rpm (adjustable)
Power supply	AC 220V, 50Hz, 250W
Dimension	750×690×460mm
Weight	55kg

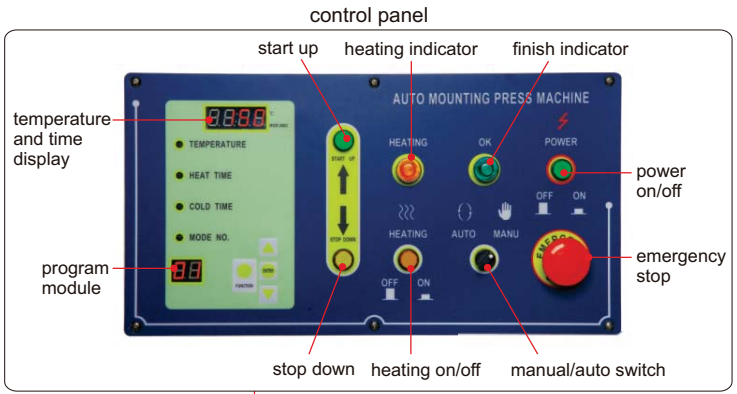
STANDARD DELIVERY

Main unit	1pc
Aluminum oxide powder (100g)	1 bag
Silicon carbide paper	4pcs
Polishing cloth	2pcs

OPTIONAL ACCESSORY

Aluminum oxide powder (100g)	**ISJ-PMA200-ALU**
Silicon carbide paper	**ISJ-PMA200-SAN**
Polishing cloth	**ISJ-PMA200-CLT**

MOUNTING PRESS
CODE ISJ-MMA32



- Low noise
- Water cooling system
- Can set temperature, heating time and cooling time
- Maximum 40 settings can be saved

spray

hot mounting resin

SPECIFICATION

Maximum diameter of workpiece	Ø32mm
Mounting quantity	1pc
Power supply	AC 220V, 50Hz, 1600W
Dimension	580×550×590mm
Weight	80kg

STANDARD DELIVERY

Main unit	1pc
Spray	1 bottle
Hot mounting resin (1kg)	1 bag

OPTIONAL ACCESSORY

Spray	**ISJ-MMA32-LQD**
Hot mounting resin (1kg)	**ISJ-MMA32-PDR**

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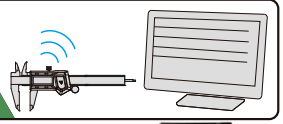

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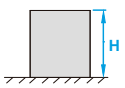

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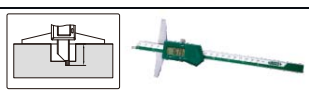

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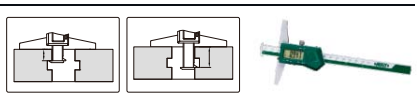

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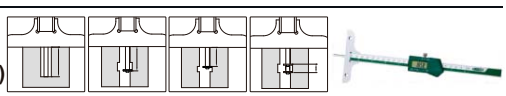

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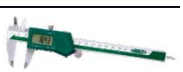

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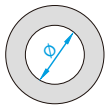

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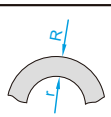

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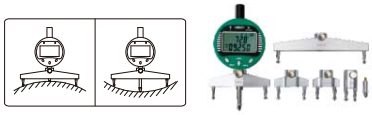

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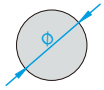

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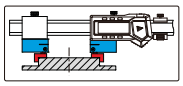

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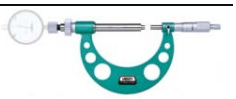

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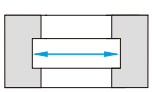

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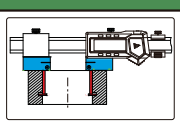

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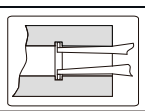
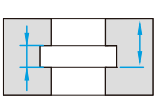


WIDTH AND POSITION OF GROOVE INSIDE HOLE



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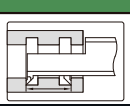

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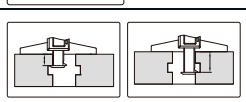

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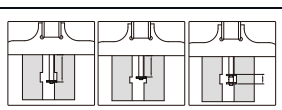

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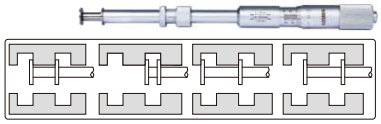
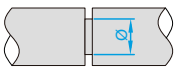


EXTERNAL GROOVE DIAMETER



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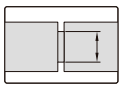

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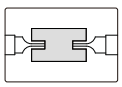

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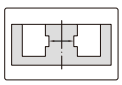

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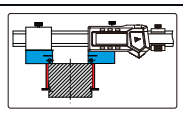
(PAGE 23-24)



Digital caliper with interchangeable points
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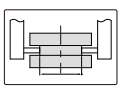

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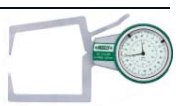
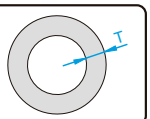


TUBE WALL THICKNESS



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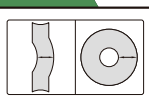

Cylindrical anvil tube micrometer
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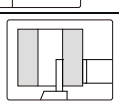

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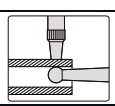

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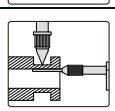
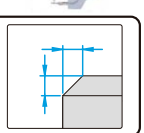


CHAMFER



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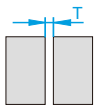

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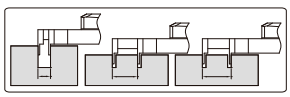
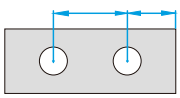


HOLE CENTER DISTANCE AND HOLE CENTER TO EDGE DISTANCE



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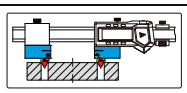
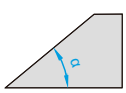


ANGLE



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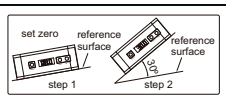
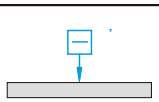


STRAIGHTNESS



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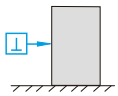

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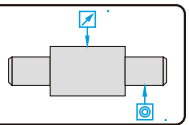

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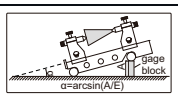

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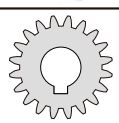

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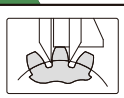

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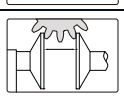

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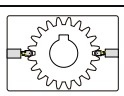

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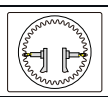

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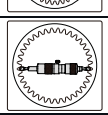

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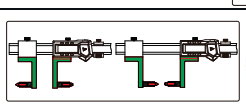

Digital caliper with interchangeable points
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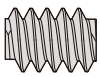
THREAD



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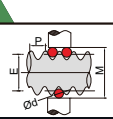

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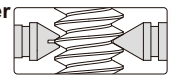

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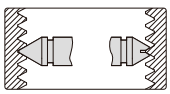

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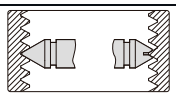

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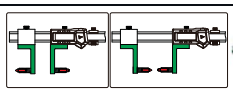

Digital caliper with interchangeable points
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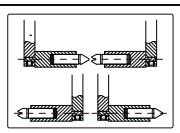
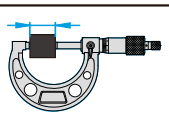


MICROMETER CALIBRATION



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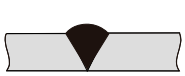

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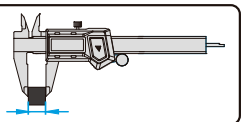

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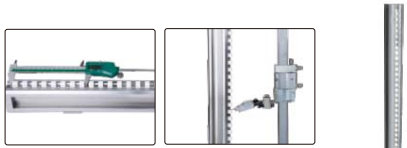
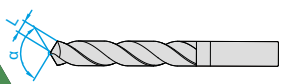


DRILL BITS



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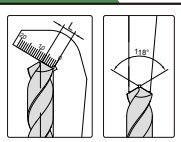

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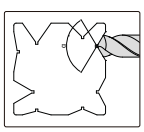
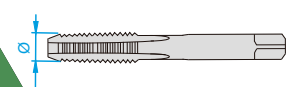


TAPS, REAMERS AND END MILLS



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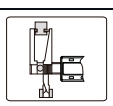
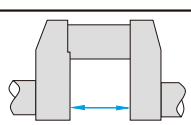


CRANKSHAFT DEFLECTION



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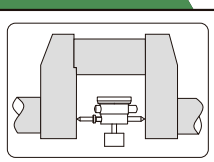
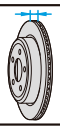


CAR BRAKE



Digital disk brake caliper
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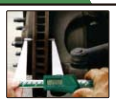

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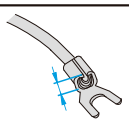

Digital crimp height caliper
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(PAGE 38)

Crimp height micrometer
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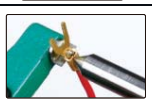
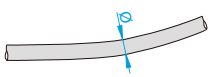


WIRE DIAMETER



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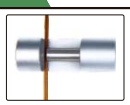
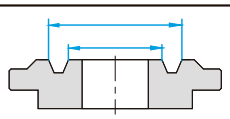


RTJ RING GROOVE DIAMETER



Digital RTJ ring groove caliper
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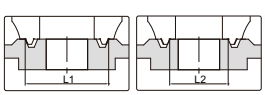
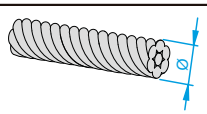


WIRE ROPE DIAMETER, RUBBER AND SPONGE THICKNESS



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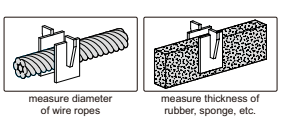
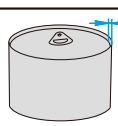


CAN SEAM



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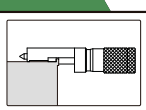
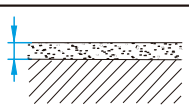
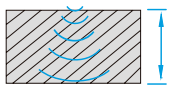


COATING THICKNESS

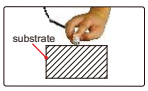


Coating thickness gage
ISO-2000FN,
ISO-1500F **(PAGE 318-319)**

MEASURING THICKNESS FROM ONE SIDE



Ultrasonic thickness gage (through coating)
ISU-300D **(PAGE 320)**



Ultrasonic thickness gage
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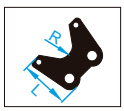

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ISM-WF200, ISM-PM200SB/600SB/PM160LA
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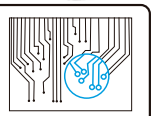
Portable measuring microscope
ISM-PM20/40/50/100
(PAGE 303)

VISION INSPECTION



Digital microscope
ISM-WF200/PM200SB/PM600SB
/PM160LA/TV200/TV200W
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High magnification microscope
ISM-M600-P/M1000/M2000
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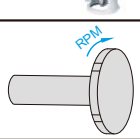
ROTARY SPEED



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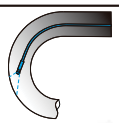

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VP60/RV/E10/E20**(PAGE 304-309)**

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Borescope
ISV-1Hxxx/HF4030/HR6032/HMxxx/HPxxx
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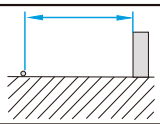

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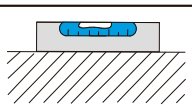

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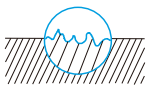

Roughness tester
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Roughness specimen
ISR-RSxxx, ISR-CS130, ISR-CSxxx
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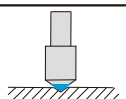

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Rockwell (portable)
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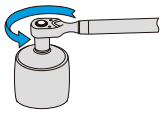

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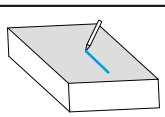

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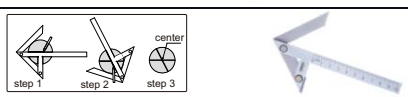

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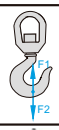

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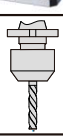

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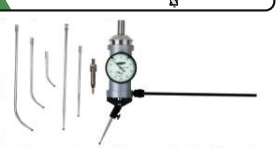

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