



MEASURING INSTRUMENTS

CATALOG NO. US26

ALL PRODUCTS IN THIS CATALOG ARE USUALLY STOCKED AT INSIZE IN GEORGIA
Please see our full line catalog US303 or visit www.insizeus.com

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INSIDE
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DIGITAL CHAMFER
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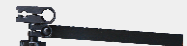
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DIAL TEST
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INDICATORS



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DIGITAL HEIGHT GAGES

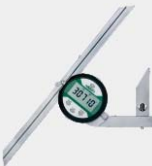


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STRAIGHT EDGES



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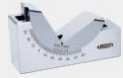
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INDUCTIVE MOISTURE METER



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TORQUE WRENCHES

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DIAL CALIPERS



VERNIER CALIPERS



OUTSIDE MICROMETERS



BORE GAGES



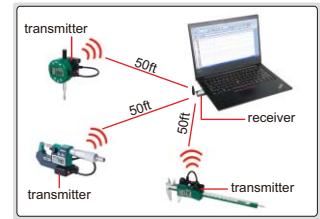
DIAL TEST INDICATORS



DIAL INDICATORS

WIRELESS DATA TRANSMISSION SYSTEM

- Through wireless transmission, the measurement data can be transmitted to computers or mobile phones
- Wireless zigbee protocol, conforming to IEEE802, 2.4GHz band
- Transmission distance is 50ft (under the condition of no obstruction and no electromagnetic interference)



Transmitter

- Connecting to digital measuring tools such as calipers, micrometers and indicators
- CR2032 battery

Part No.	Description	Transmitter	Connecting with measuring tool	Transmit data
7315-21	transmitter for digital calipers			<ul style="list-style-type: none"> Press the transmit button on the plug of cable, can also press the transmit button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once
7315-22	transmitter for large digital calipers			<ul style="list-style-type: none"> Press the transmit button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once
7315-30	transmitter for digital micrometers			<ul style="list-style-type: none"> Press the "data" button of digital micrometer, can also press the transmit button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once, at the same time, the signal light on the digital micrometer flashes once
7315-31	transmitter for digital micrometers		 	<ul style="list-style-type: none"> Press the "data" button of digital micrometer Data is transmitted once, the signal light on the digital micrometer flashes once
7315-50M	transmitter for digital indicators		 for 2108, 2138, 2139 series digital indicators	<ul style="list-style-type: none"> Press the "DATA" button of digital indicator, can also press the transmit button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once, at the same time, the signal light on digital indicator flashes once
			 for other digital indicators	<ul style="list-style-type: none"> Press the transmit button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once

To be continued

Continued from previous page

Part No.	Description	Transmitter	Connecting with measuring tool	Transmit data
7315-60	transmitter for high precision digital indicators			<ul style="list-style-type: none"> Press the transmit button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once

Receiver (keyboard signal)

- For computers and mobile phones
- Recognized as HID keyboard device, the transmitted data is recognized by computers or mobile phones as keyboard input data and press enter, such as 12.34✓.
- No need to install drivers and softwares
- Data can be transmitted to excel, word, txt etc.
- For any softwares which can receive keyboard signal

Part No.	Product	Description	Remark
7315-3	USB port	single channel receiver	connected with 1 transmitter only
7315-6	USB port	multichannel receiver	connected with 6 transmitters, each channel has status indicator
7315-7	type-C port		
7315-8	micro USB port		
7315-9	lightning port		

Receiver (text format, virtual com port)

- For computers with windows system
- Text format virtual com port, converted to keyboard format with supplied software
- Supplied with EXCEL directional input software
- Measurement data can be transmitted to excel, word, txt etc. and any software which receives keyboard signal

Part No.	Product	Description	Remark
7315-2	antenna USB port	multichannel receiver	connected with maximum 16 transmitters, each of them has unique identification code

EXCEL directional input software

- Supplied with 7315-2 receiver
- The measurement data of multiple measuring tools can be transmitted to the designated area of excel, which facilitates data management and improves efficiency

Excel directional input software (included in 7315-2), application example 1

Set the display area of caliper at B4-B9, the readings of caliper are displayed at B4, B5...B9.
Set the display area of micrometer at C4-C9, the readings of micrometer are displayed at C4, C5... C9.
Set the display area of height gage at D4-D9, the readings of height gage are displayed at D4, D5... D9.

	A	B	C	D
1	Project	Length	Width	Height
2	Dimension and Tolerance	50±0.05	24±0.01	10+0.05-0.06
3	Measuring tool	Caliper	Micrometer	Height gage
4	1	50.02	24.004	9.98
5	2	50.01	24.010	10.01
6	3	49.99	23.990	10.02
7	4	50.00	23.996	9.99
8	5	50.04	24.000	10.01
9	6	Channel 1	Channel 2	Channel 3

serial of workpieces the next data display area is indicated in green

Excel directional input software (included in 7315-2), application example 2

Set the display area of micrometer at B4-C9, data input is from the left to the right, the readings of micrometer are displayed at B4, C4, B5, C5... B9, C9.
Set the display area of caliper at D4-D9, the readings of caliper are displayed at D4, D5... D9.
Set the display area of depth gage at E4-E9, the readings of depth gage are displayed at E4, E5... E9.

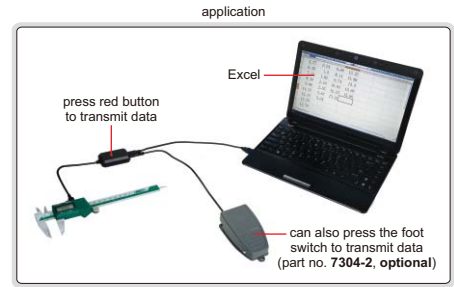
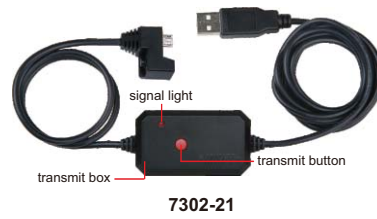
	A	B	C	D	E
1	Project	External diameter1	External diameter2	Length	Depth
2	Dimension and Tolerance	Φ23+0.01/-0.02	Φ21+0.01/-0.02	50±0.04	28±0.05
3	Measuring tool	Micrometer	Micrometer	Caliper	Depth gage
4	1	23.010	21.008	49.98	28.01
5	2	23.010	21.000	49.98	27.98
6	3	22.999	21.000	50	28
7	4	23.007	20.998	50	28
8	5	23.000	20.985	50.01	28.01
9	6	23.008	Channel 1	Channel 2	Channel 3

serial of workpieces the next data display area is indicated in green

DATA OUTPUT CABLES (KEYBOARD FORMAT)



- Recognized as HID keyboard device by computer, no need to install drivers and softwares
- Data can be transmitted to Excel, Word, txt and other files (press transmit button, which is recognized by the computer as keyboard input data and press enter, such as 1.34 \angle)
- For any softwares which can receive keyboard signal
- Optional accessory: foot switch (part no. **7304-2**), hub (part no. **7324-HUB4**, **7324-HUB7**), extension cables (part no. **7325-ADD5**, **7325-ADD10**)



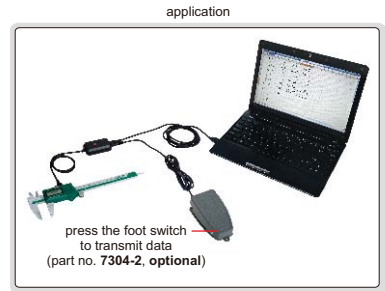
Part No.	Description	Plug	Connecting with measuring tool	Transmit data
7302-21	cable for digital calipers (length 120")			<ul style="list-style-type: none"> ■ Press the transmit button on the plug of cable, can also press the transmit button of the transmit box, or press the foot switch ■ Data is transmitted once, the signal light of the transmit box flashes once
7302-22	cable for large digital calipers (length 100")			<ul style="list-style-type: none"> ■ Press the transmit button of the transmit box, or press the foot switch ■ Data is transmitted once, the signal light of the transmit box flashes once
7302-30	cable for digital micrometers (length 100")			<ul style="list-style-type: none"> ■ Press the "data" button of digital micrometer, can also press the transmit button of the transmit box, or press the foot switch ■ Data is transmitted once, the signal light of the transmit box flashes once, at the same time, the signal light on the digital micrometer flashes once
7302-40M	cable for digital indicators (length 100")		<p>for 2108, 2138, 2139 series digital indicators</p>	<ul style="list-style-type: none"> ■ Press the "DATA" button of digital indicator, can also press the transmit button of the transmit box, or press the foot switch ■ Data is transmitted once, the signal light of the transmit box flashes once, at the same time, the signal light on digital indicator flashes once <p>Note: long press transmit button to zero the digital indicators</p>
			<p>for other digital indicators</p>	<ul style="list-style-type: none"> ■ Press the transmit button of the transmit box, or press the foot switch ■ Data is transmitted once, the signal light of the transmit box flashes once <p>Note: long press transmit button to zero the digital indicators</p>
7302-50M	cable for digital gages (length 100")			<ul style="list-style-type: none"> ■ Press the transmit button of the transmit box, or press the foot switch ■ Data is transmitted once, the signal light of the transmit box flashes once
7302-60	cable for high precision digital indicators (length 100")			<ul style="list-style-type: none"> ■ Press the "DATA" button of high precision digital indicator, can also press the transmit button of the transmit box, or press the foot switch ■ Data is transmitted once, the signal light of the transmit box flashes once

FOOT SWITCH

- For data transmission



7304-2



Part No.	Description	Applicable products
7304-2	data transmission foot switch with cable (length 80")	7302 series data cables 7305 series data cables

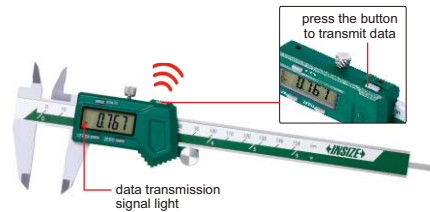
WIRELESS DIGITAL CALIPERS



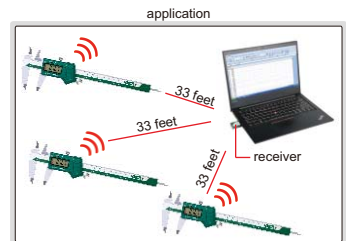
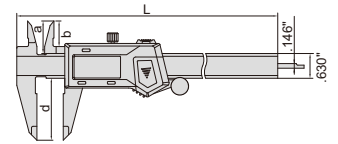
ATTENTION: THE WORKING LIFE OF A BATTERY IS ABOUT 3-5 MONTHS



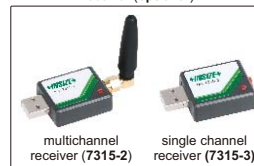
- Non waterproof
- Built-in wireless data transmission module, Zigbee signal
- Transmission distance is 33 feet (under the condition of no obstruction and no electromagnetic interference)
- Resolution .0005"/0.01mm
- Accuracy: ±.0015"
- Buttons: on/off, zero, inch/mm, data transmission
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: receiver (part no. 7315-2/3/6/7/8/9)



1113-150



receiver (optional)



Part No.	Range	L	a	b	d
1113-150*	0-6"/0-150mm	9.291"	.827"	.630"	1.575"
1113-200*	0-8"/0-200mm	11.260"	.945"	.748"	1.969"
1113-300*	0-12"/0-300mm	15.748"	.984"	.807"	2.362"

*Supplied with manufacturer inspection certificate

IP67 WATERPROOF DIGITAL CALIPERS

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

ATTENTION: NO DATA OUTPUT

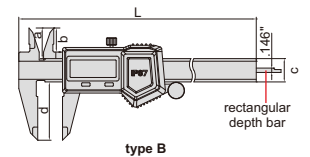
IP67
WATERPROOF



- IP67 dust/waterproof
- Resolution .0005"/0.01mm
- Accuracy: ±.0015"
- Button function: zero, on/off, inch/mm, ABS/REL, hold
- Battery CR2032
- Made of stainless steel



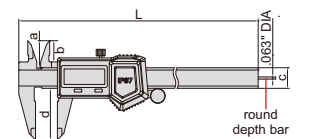
1118-150B



type B



1118-150R



type R

Part No.	Range	Type	L	a	b	c	d
1118-150B*	0-6"/0-150mm	B	9.291"	.827"	.630"	.630"	1.575"
1118-200B*	0-8"/0-200mm	B	11.260"	.945"	.748"	.630"	1.969"
1118-300B*	0-12"/0-300mm	B	15.748"	.984"	.807"	.630"	2.362"
1118-150R*	0-6"/0-150mm	R	9.291"	.827"	.630"	.630"	1.575"

*Supplied with manufacturer inspection certificate

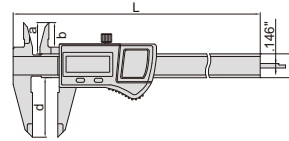
IP67 WATERPROOF DIGITAL CALIPERS

IP67
WATERPROOF

ATTENTION: NO
DATA OUTPUT



1115-150



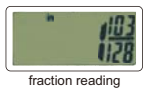
- IP67 dust/waterproof
- Resolution .0005"/0.01mm
- Button function: zero, on/off, inch/mm
- Battery CR2032
- Automatic power off
- Made of stainless steel

Part No.	Range	Accuracy	L	a	b	c	d
1115-150*	0-6"/0-150mm	±.0015"	9.252"	.787"	.591"	.630"	1.575"
1115-200*	0-8"/0-200mm	±.0015"	11.299"	.945"	.748"	.630"	1.969"
1115-300*	0-12"/0-300mm	±.0015"	15.276"	1.024"	.827"	.630"	2.362"

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS (FRACTION READING)

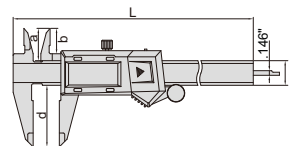
ATTENTION: NO
DATA OUTPUT



fraction reading



1102-150



- Non waterproof
- Resolution: 0.01mm, .0005", 1/128"
- Buttons: unit (mm/in/fraction), ABS, on/off, zero
- Absolute and incremental measurement
- Battery CR2032
- Automatic power off
- Made of stainless steel

Part No.	Range	Accuracy	L	a	b	d
1102-150*	0-6"/0-150mm	±.0015"	9.213"	.787"	.630"	1.575"
1102-200*	0-8"/0-200mm	±.0015"	11.260"	.945"	.748"	1.969"
1102-300*	0-12"/0-300mm	±.0015"	15.354"	1.024"	.846"	2.362"

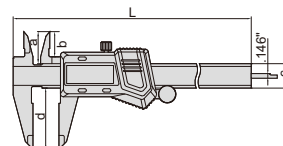
*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS

ATTENTION: NO
DATA OUTPUT



1114-150A



- Non waterproof
- Accuracy: ±.0015"
- Zinc alloy housing for digital unit
- Resolution .0005"/0.01mm
- Buttons: zero, on/off, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel

Part No.	Range	Accuracy	L	a	b	c	d
1114-150A*	0-6"/0-150mm	±.0015"	9.291"	.827"	.630"	.630"	1.575"
1114-200A*	0-8"/0-200mm	±.0015"	11.260"	.945"	.748"	.630"	1.969"
1114-300A*	0-12"/0-300mm	±.0015"	15.748"	.984"	.807"	.669"	2.362"

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS (STANDARD TYPE)

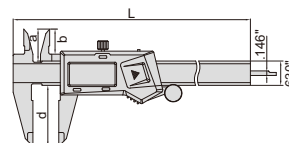
DATA
OUTPUT

INSIZE
ISO17025 CERTIFICATE
AVAILABLE AT
EXTRA CHARGE
(REFER TO BACK COVER)

POPULAR
MODEL



1108-150



- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)

Part No.	Range	Accuracy	L	a	b	d
1108-150*	0-6"/0-150mm	±.0010"	9.291"	.827"	.630"	1.575"
1108-200*	0-8"/0-200mm	±.0015"	11.260"	.945"	.748"	1.969"
1108-300*	0-12"/0-300mm	±.0015"	15.748"	.984"	.807"	2.362"

*Supplied with manufacturer inspection certificate

HEAVY DUTY 12" DIGITAL CALIPER

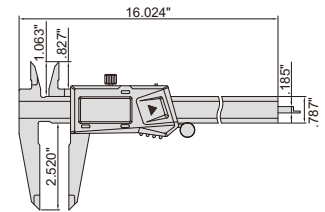
INSPECTION
CERTIFICATE

DATA
OUTPUT

- Non waterproof
- Resolution .0005"/0.01mm
- Accuracy: $\pm 0.015"$
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)



1196-300



Part No.	Range
1196-300*	0-12"/0-300mm

*Supplied with manufacturer inspection certificate

DIGITAL CALIPER WITH ROUND DEPTH BAR

DATA
OUTPUT

INSPECTION
CERTIFICATE

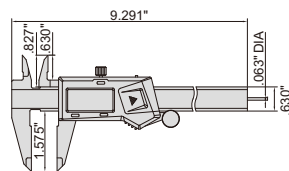


round depth bar .063" DIA



1119-150

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1119-150*	0-6"/0-150mm	$\pm 0.015"$

*Supplied with manufacturer inspection certificate

LEFT HAND DIGITAL CALIPERS

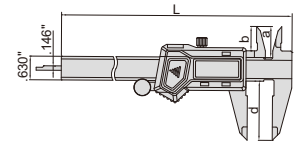
INSPECTION
CERTIFICATE

DATA
OUTPUT



1130-150

- Non waterproof
- Designed for left handed users
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)



Part No.	Range	Accuracy	L	a	b	d
1130-150*	0-6"/0-150mm	$\pm 0.015"$	9.291"	.827"	.630"	1.575"
1130-200*	0-8"/0-200mm	$\pm 0.015"$	11.260"	.945"	.748"	1.969"
1130-300*	0-12"/0-300mm	$\pm 0.015"$	15.748"	.984"	.807"	2.362"

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS WITH CARBIDE TIPPED JAWS

DATA
OUTPUT

INSPECTION
CERTIFICATE

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1110-150A



1110-150B

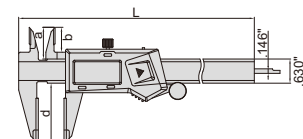
Carbide tipped upper and lower jaws

Part No.	Range	Accuracy	L	a	b	d
1110-150A*	0-6"/0-150mm	$\pm 0.015"$	9.291"	.827"	.630"	1.575"
1110-200A*	0-8"/0-200mm	$\pm 0.015"$	11.260"	.945"	.748"	1.969"
1110-300A*	0-12"/0-300mm	$\pm 0.015"$	15.748"	.984"	.807"	2.362"

Carbide tipped lower jaws

Part No.	Range	Accuracy	L	a	b	d
1110-150B*	0-6"/0-150mm	$\pm 0.015"$	9.291"	.827"	.630"	1.575"
1110-200B*	0-8"/0-200mm	$\pm 0.015"$	11.260"	.945"	.748"	1.969"
1110-300B*	0-12"/0-300mm	$\pm 0.015"$	15.748"	.984"	.807"	2.362"

*Supplied with manufacturer inspection certificate



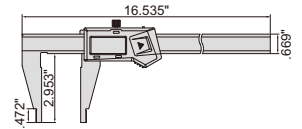
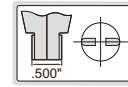
DIGITAL CALIPER

DATA OUTPUT

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1522-127



Part No.	Range	Accuracy
1522-127	0-12"/0-300mm	±.0025"

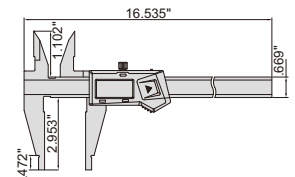
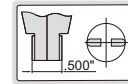
DIGITAL CALIPER

DATA OUTPUT

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1523-127



Part No.	Range	Accuracy
1523-127	0-12"/0-300mm	±.0025"

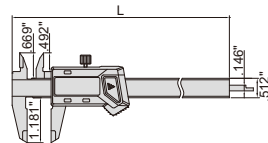
MINI DIGITAL CALIPERS

ATTENTION: NO DATA OUTPUT



1111-100A

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: zero, inch/mm, on/off
- Automatic power off, move the digital unit to turn on power
- Battery LR44
- Made of stainless steel



Part No.	Range	Accuracy	L
1111-75A	0-3"/0-75mm	±.0010"	5.669"
1111-100A	0-4"/0-100mm	±.0010"	6.693"

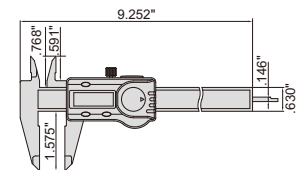
PLASTIC DIGITAL CALIPER

ATTENTION: NO DATA OUTPUT



1139-150

- Non waterproof
- Made of hard plastic, non-magnetic and non electric conductive
- Prevent workpieces from scratching by calipers
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Battery CR2032
- Automatic power off



Part No.	Range	Accuracy
1139-150	0-6"/0-150mm	±.004"

DIAL CALIPERS

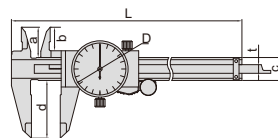
INSPECTION CERTIFICATE

SHOCK PROOF

POPULAR MODEL

INSIZE
ISO 17025 CERTIFICATE
AVAILABLE AT
EXTRA CHARGE
(REFER TO BACK COVER)

- Dial indicator graduation .001"
- Shockproof dial indicator
- Made of stainless steel



1311-6

Part No.	Range	Accuracy	L	a	b	c	d	D	t
1311-4*	0-4"	±.0012"	6.496"	.709"	.472"	.512"	1.181"	1.260" DIA	.228"
1311-6*	0-6"	±.0015"	9.252"	.827"	.650"	.630"	1.575"	1.535" DIA	.256"
1311-8*	0-8"	±.0020"	11.339"	.945"	.748"	.630"	1.890"	1.535" DIA	.256"
1311-12*	0-12"	±.0020"	16.142"	1.102"	.866"	.787"	2.441"	1.752" DIA	.295"

*Supplied with manufacturer inspection certificate

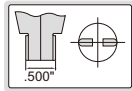
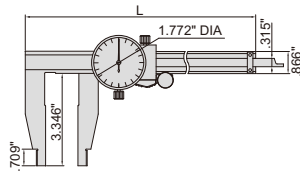
DIAL CALIPERS

SHOCK PROOF



1316-18

- Shockproof dial indicator
- Graduation .001"
- Accuracy: ± 0.020 "
- Made of stainless steel



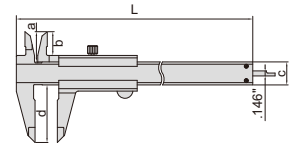
Part No.	Range	L
1316-18	0-18"	22.835"
1316-24	0-24"	28.740"

VERNIER CALIPERS



1205-1502E

- Graduation .001"/0.02mm
- Accuracy: ± 0.012 "
- Made of stainless steel
- Satin chrome plated reading surface



Part No.	Range	L	a	b	c	d
1205-1502E	0-6"/0-150mm	9.252"	.807"	.610"	.630"	1.575"
1205-2002E	0-8"/0-200mm	11.417"	.925"	.748"	.669"	1.969"

DEPTH BASE ATTACHMENTS

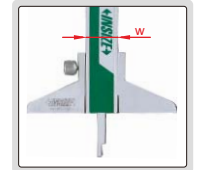
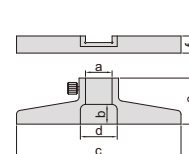
- To increase the stability of depth measurement
- Suitable for digital calipers and dial calipers
- Made of stainless steel



6140

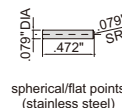
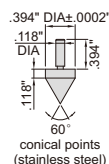
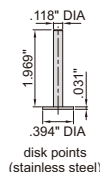
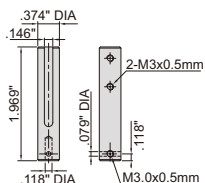


6140-16B



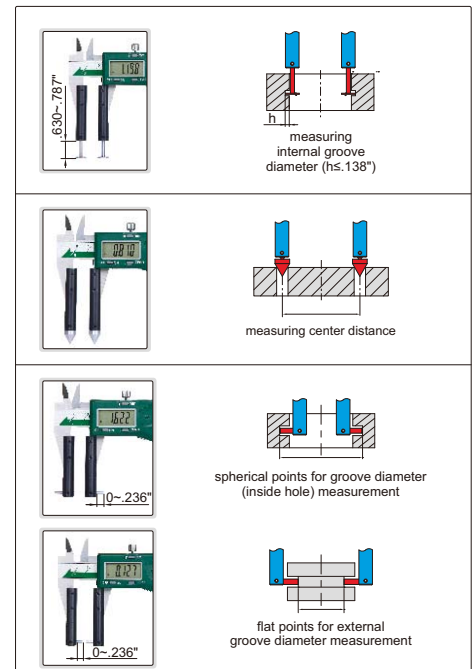
Part No.	a	b	c	d	e	f	Type	Application
6140	.650"	.354"	2.953"	.709"	1.181"	.236"	narrow base (f=.236")	suitable for calipers with beam width (w) .630"
6140-300A	.787"	.591"	4.921"	.866"	1.339"	.354"	narrow base (f=.354")	suitable for calipers with beam width (w) .787"
6140-16B	.630"	.492"	2.953"	.965"	1.181"	.433"	wide base (f=.433"), high stability	suitable for calipers with beam width (w) .630"

ACCESSORY SET FOR DIGITAL CALIPERS PART NO. 6144



- Suitable for 0-6"/0-150mm and 0-8"/0-200mm digital calipers (thickness of lower jaws ≤ 1.46 ")

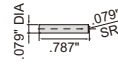
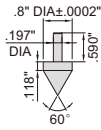
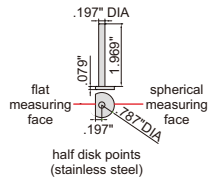
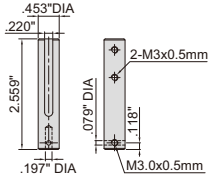
Part No.
6144



ACCESSORY SET FOR LARGE DIGITAL CALIPERS PART NO. 6145-500



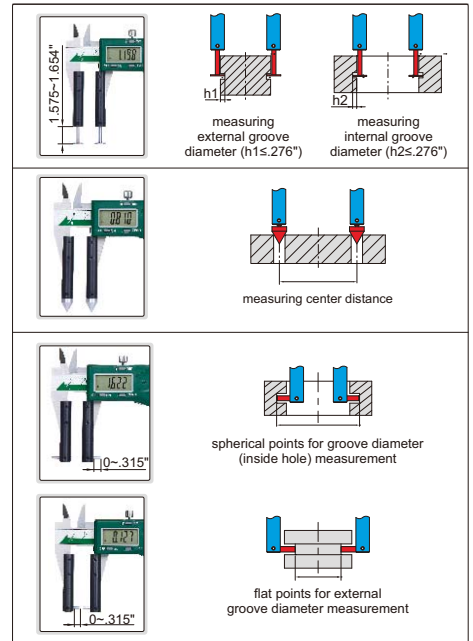
6145-500



spherical/flat points
(stainless steel)

- Suitable for 0-20"/0-500mm and 0-24"/0-600mm digital calipers (thickness of lower jaws \leq .220")

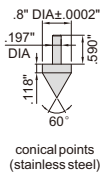
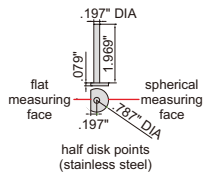
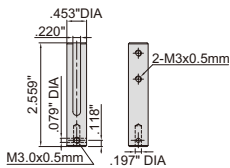
Part No.
6145-500



ACCESSORY SET FOR LARGE DIGITAL CALIPERS (WITH SIDE POINTS) PART NO. 6146-500B



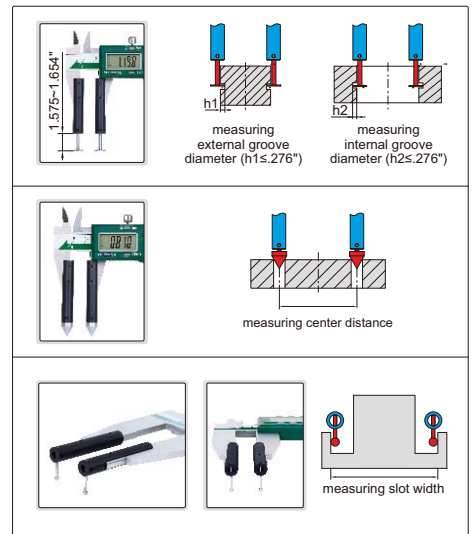
6146-500B



ball points
(stainless steel)

- Suitable for 0-20"/0-500mm and 0-24"/0-600mm digital calipers (thickness of lower jaws \leq .220")

Part No.
6146-500B



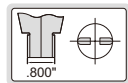
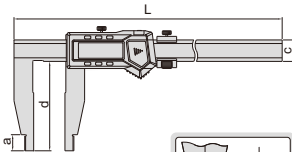
DIGITAL CALIPERS

DATA
OUTPUT



1131-24

- Non waterproof
- Resolution .0005"/0.01mm
- Button function: on/off, zero, inch/mm, ABS, data preset
- Battery CR2032
- Made of stainless steel
- Data output
- Optional accessory: data output cable (part no. 7315-22, 7302-22, for 1131-24 and 1131-40; part no. 7315-20B, 7302-SPC1A, for 1131-60)



Part No.	Range	Accuracy	a	c	d	L
1131-24	0-24"/0-600mm	\pm .0020"	.709"	.945"	3.937"	30.315"
1131-40	0-40"/0-1000mm	\pm .0030"	.945"	1.220"	5.906"	48.031"
1131-60	0-60"/0-1500mm	\pm .0045"	.945"	1.654"	5.906"	70.079"

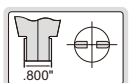
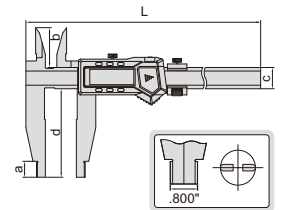
DIGITAL CALIPERS

DATA
OUTPUT



1133-24

- Non waterproof
- Resolution .0005"/0.01mm
- Button function: on/off, zero, inch/mm, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)



Part No.	Range	Accuracy	a	b	c	d	L
1133-24	0-24"/0-600mm	\pm .0020"	.709"	1.772"	.945"	3.937"	30.315"
1133-40	0-40"/0-1000mm	\pm .0030"	.945"	2.362"	1.220"	5.906"	48.031"

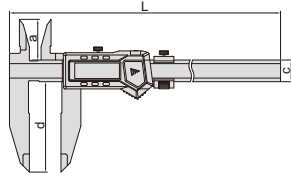
DIGITAL CALIPERS

DATA
OUTPUT



1135-601

- Non waterproof
- Resolution .0005"/0.01mm
- Button function: on/off, zero, inch/mm, ABS, data preset
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)



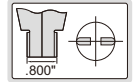
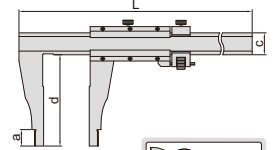
Part No.	Range	Accuracy	a	c	d	L
1135-451	0-18"/0-450mm	±.0020"	1.772"	.945"	3.937"	24.606"
1135-601	0-24"/0-600mm	±.0020"	1.772"	.945"	3.937"	30.315"
1135-1002	0-40"/0-1000mm	±.0030"	2.362"	1.220"	5.906"	48.031"

VERNIER CALIPERS (SEPARATE TYPE)



1211-24

- Graduation .001"/0.02mm
- Graduation on scale: inch on bottom, metric on top
- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface



Part No.	Range	Accuracy	a	c	d	L
1211-24	0-24"/0-600mm	±.0020"	.709"	.945"	3.937"	30.315"
1211-40	0-40"/0-1000mm	±.0031"	.945"	1.26"	5.512"	47.874"

UNIVERSAL CALIPER

DATA
OUTPUT

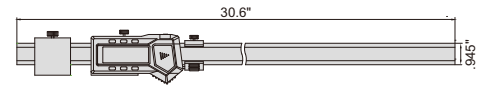


1125-600

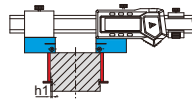
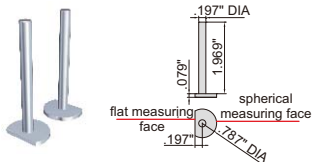
- Non waterproof
- Buttons: on/off, set, inch/mm, ABS, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)

Part No.	Range*	Resolution	Accuracy
1125-600	0-24"/0-600mm	.0005"/0.01mm	±.002"

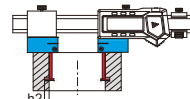
*The range changes according to different points



Half disk points (included)

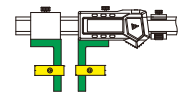
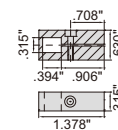


measuring external groove diameter with flat measuring face (depth h1 ± .098")

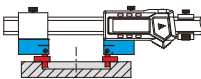
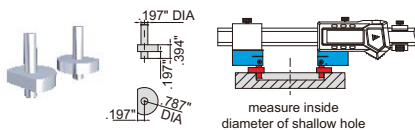


measuring internal groove diameter with spherical measuring face (depth h2 ± .295")

Depth stop (included)



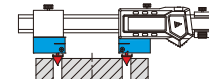
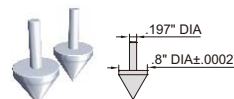
Round shoulder points (optional)



measure inside diameter of shallow hole

Part No.
1125-T102

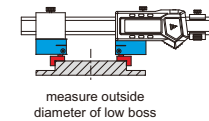
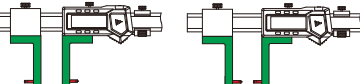
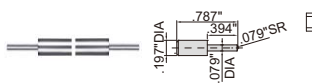
Conical points (optional)



measuring center distance

Part No.
1125-T101-1

Spherical points (included)



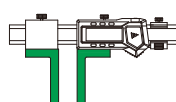
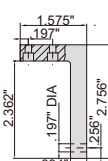
measure outside diameter of low boss

Part No.
1125-T103

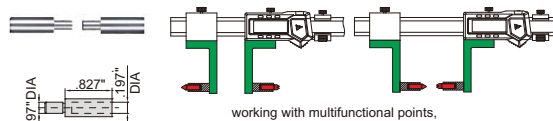
Stands (included)



Measuring jaws (included)



Point sleeve (optional)



working with multifunctional points, ball points and screw thread points

Part No.
1125-T104

Multifunctional points 7392 (optional)



Ball points 7391 (optional)



Screw thread points 7381, 7321 (optional)



**DIGITAL CALIPER WITH INTERCHANGEABLE POINTS
PART NO. 1526-200**

**DATA
OUTPUT**



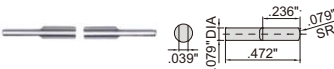
short spherical points (included)



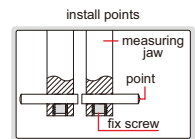
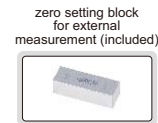
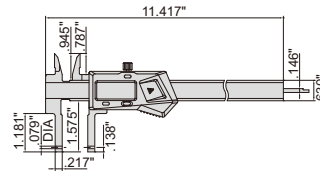
long spherical/flat points (included)



spherical blade points (included)



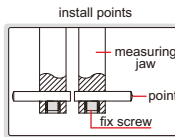
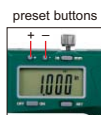
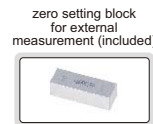
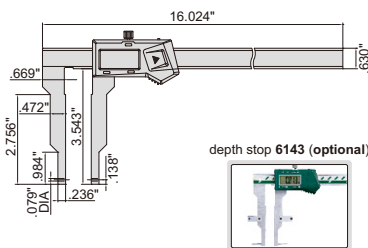
- Non waterproof
- Supplied with 3 pairs of points and zero setting block for external measurement
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: points (part no. 1526-T101, 7392, 7391, 7381, 7321), depth stop (part no. 6143), data output cable (part no. 7315-21, 7302-21)



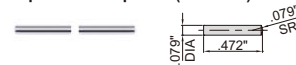
Point	Range	Accuracy	Application
short spherical points	.5-8.5"/12-212mm (internal)	±.0015"	for grooves inside small hole
long spherical/flat points	1-8.8"/24-224mm (internal) 0-7.5"/0-187mm (external)	±.0015"	spherical points for grooves inside hole flat points for external grooves
spherical blade points	1-8.8"/24-224mm (internal) 0-7.5"/0-187mm (external)	±.0015"	for narrow grooves inside hole

**DIGITAL CALIPER WITH INTERCHANGEABLE POINTS
PART NO. 1124-300A**

**DATA
OUTPUT**



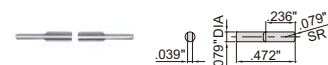
short spherical/flat points (included)



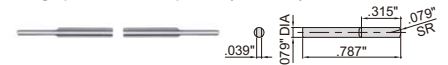
long spherical/flat points (included)



short spherical blade points (included)



long spherical blade points (included)



- Non waterproof
- Supplied with 4 pairs of points and zero setting block for external measurement
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: points, depth stop (part no. 6143), data output cable (part no. 7315-21, 7302-21)

Point	Range	Accuracy	Application
short spherical/flat points	1-12.7"/24-324mm (internal) 0-11.3"/0-288mm (external)	±.0015"	spherical points for grooves inside hole (small hole) flat points for external grooves
long spherical/flat points	1.5-13.3"/40-340mm (internal) 0-10.7"/0-272mm (external)	±.0015"	spherical points for grooves inside hole (large hole) flat points for external grooves
short spherical blade points	1-12.7"/24-324mm (internal) 0-11.3"/0-288mm (external)	±.0015"	for narrow grooves inside hole (small hole)
long spherical blade points	1.5-13.3"/40-340mm (internal) 0-10.7"/0-272mm (external)	±.0015"	for narrow grooves inside hole (large hole)

DIGITAL CALIPER WITH INTERCHANGEABLE POINTS



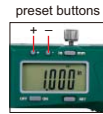
VARIOUS POINTS
ARE AVAILABLE

DATA
OUTPUT



1530-300

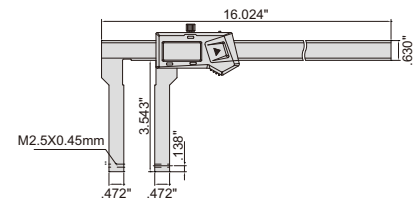
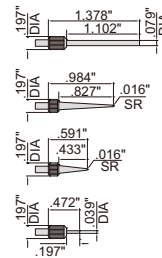
- Non waterproof
- Supplied with 4 pairs of points and zero setting block for external measurement
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: points, depth stop (part no. 6143), data output cable (part no. 7315-21, 7302-21)



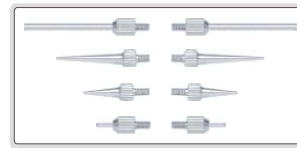
depth stop 6143
(optional)



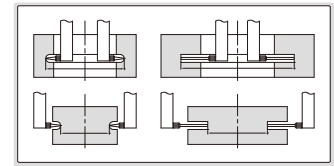
zero setting block for
external measurement
(included)



4 pairs of points (included)



measure internal and external grooves



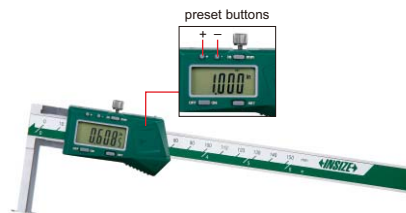
Part No.	Range*	Accuracy
1530-300	0-12"/0-300mm	±.0016"

*For different points, the measuring range changes accordingly

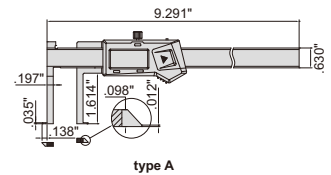
DIGITAL INSIDE GROOVE CALIPERS

- Measure diameter of grooves inside small bores
- Resolution .0005"/0.01mm
- Buttons type A: on/off, set, inch/mm, preset (+, -), type B: on/off, zero, inch/mm, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143)

depth stop 6143
(optional)



1520-150



type A

No waterproof, with data interface
(data output cable part no. 7315-21, 7302-21, optional)

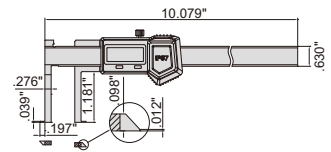
Part No.	Range	Type	Accuracy
1520-150	.43-6"/11-150mm	A	±.0015"

IP67 dust/waterproof, no automatic power off, set zero after power on each time, without data interface

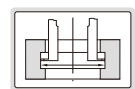
Part No.	Range	Type	Accuracy
1520-150P	.56-6"/14-150mm	B	±.0015"



1520-150P



type B



DIGITAL INSIDE POINT CALIPERS

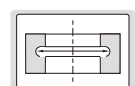
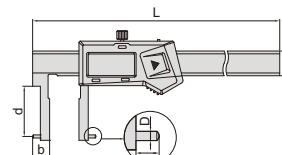
DATA
OUTPUT

- Non waterproof
- Measure groove diameter
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143, for calipers with c=.630"), data output cable (part no. 7315-21, 7302-21)

depth stop 6143
(optional)



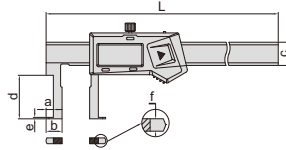
1121-150A



Part No.	Range	Accuracy	L	a	b	c	d	D
1121-150A	.9-6"/24-150mm	±.0015"	9.843"	.197"	.4724"	.630"	1.102"	.079" DIA
1121-200A	1-8"/25-200mm	±.0015"	12.205"	.197"	.4921"	.630"	1.457"	.079" DIA
1121-3001A	2-12"/50-300mm	±.0025"	16.142"	.315"	.9843"	.630"	3.031"	.118" DIA

DIGITAL INSIDE GROOVE CALIPERS

- Measure groove diameter
- Resolution .0005"/0.01mm
- Buttons type A: on/off, set, inch/mm, preset (+, -), type C: on/off, zero, inch/mm, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143, for calipers with c=.630")



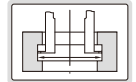
1120-150AE
type A



1120-150P
type C

No waterproof, preset (no need to add the width of the jaws on the reading), with data interface

Part No.	Range	Type	Accuracy	L	a	b	c	d	e	f	Data output cable (optional)
1120-150AE	1-6"/25.4-150mm	A	±.0015"	9.843"	.197"	.500"	.630"	1.181"	.039"	.157"	7315-21, 7302-21
1120-200A	1-8"/25-200mm	A	±.0015"	12.205"	.197"	.492"	.630"	1.575"	.039"	.157"	7315-21, 7302-21
1120-300A	1.2-12"/30-300mm	A	±.0020"	16.142"	.197"	.591"	.630"	1.969"	.059"	.157"	7315-21, 7302-21
1120-500	1.57-20"/40-500mm	A	±.0030"	26.772"	.197"	.787"	.945"	3.543"	.087"	.217"	7315-22, 7302-22



depth stop 6143
(optional)

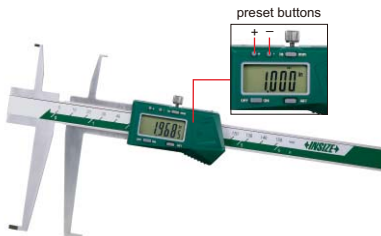


IP67 dust/waterproof, no automatic power off, set zero after power on each time, no preset (need to add the width of the jaws on the reading), without data interface

Part No.	Range	Type	Accuracy	L	a	b	c	d	e	f
1120-150P	.87-6"/22-150mm	C	±.0015"	9.843"	.197"	.433"	.630"	1.181"	.039"	.157"

DIGITAL INSIDE GROOVE CALIPERS

depth stop 6143
(optional)



1176-150



1176-150P

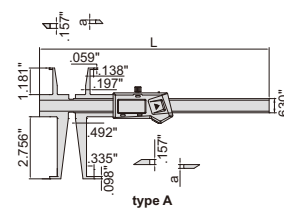
- Measure diameter of grooves inside bores
- Resolution .0005"/0.01mm
- Buttons type A: on/off, set, inch/mm, preset (+, -), type B: on/off, zero, inch/mm, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143)

No waterproof, with data interface (data output cable part no. 7315-21, 7302-21, optional)

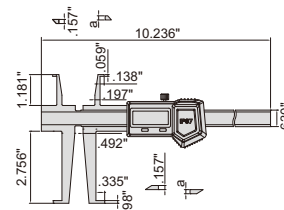
Part No.	Range of upper jaw	Range of lower jaw	Type	Accuracy	L	a
1176-150	.35-6"/9-150mm	.70-6"/17-150mm	A	±.0015"	10.236"	.118"
1176-200	.35-8"/9-200mm	.70-8"/17-200mm	A	±.0020"	12.598"	.138"

IP67 dust/waterproof, without data interface, no automatic power off, set zero after power on each time

Part No.	Range of upper jaw	Range of lower jaw	Type	Accuracy	a
1176-150P	.35-6"/9-150mm	.70-6"/17-150mm	B	±.0015"	.157"

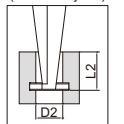


type A

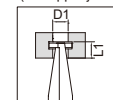


type B

sizes to be measured
(use lower jaws)



sizes to be measured
(use upper jaws)



D1	L1
.354" DIA	<.315"
.394" DIA	<.591"
.433"-8" DIA	<1.181"

D2	L2
.669" DIA	<.630"
.709" DIA	<1.102"
.748" DIA	<1.575"
.787" DIA	<1.969"
.827" DIA	<2.283"
.866"-8" DIA	<2.756"

DIGITAL DEEP HOLE INSIDE GROOVE CALIPER

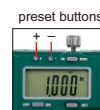
- Non waterproof
- Measure diameter of grooves inside deep holes
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143), data output cable (part no. 7315-21, 7302-21)



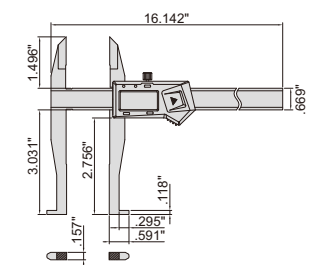
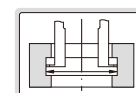
1129-300



depth stop 6143
(optional)



preset buttons

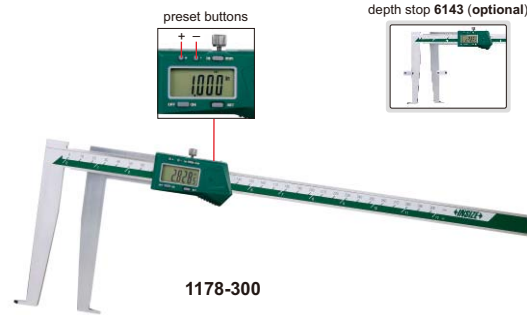


DATA
OUTPUT

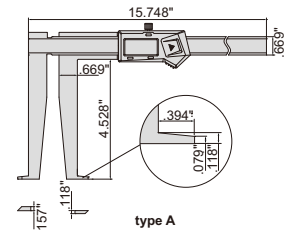
Part No.	Range of upper jaw	Range of lower jaw	Accuracy
1129-300	0-12"/0-300mm	1.2-12"/30-300mm	±.0015"

DIGITAL INSIDE GROOVE CALIPERS

- Measure diameter of grooves inside bores
- Resolution .0005"/0.01mm
- Buttons type A: on/off, set, inch/mm, preset (+, -), type B: on/off, zero, inch/mm, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143)



1178-300



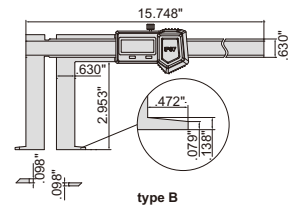
type A

No waterproof, with data interface
(data output cable part no. 7315-21, 7302-21, optional)

Part No.	Range	Type	Accuracy
1178-300	1.18-12"/25-300mm	A	±.0020"



1178-300P



type B

IP67 dust/waterproof, no automatic power off, set zero after power on each time, without data interface

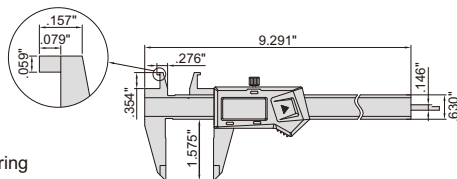
Part No.	Range	Type	Accuracy
1178-300P	1.30-12"/33-300mm	B	±.0020"

DIGITAL INSIDE GROOVE CALIPER

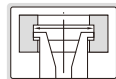
DATA OUTPUT



1191-150



- Non waterproof
- Upper jaws for measuring diameter of grooves
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



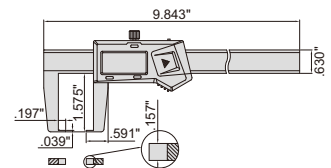
Part No.	Range of upper jaw	Range of lower jaw	Accuracy
1191-150	.3-6"/8-150mm	0-6"/0-150mm	±.0015"

DIGITAL OUTSIDE NECK CALIPER

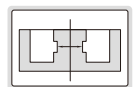
DATA OUTPUT



1187-150A



- Non waterproof
- Measure grooves and recesses
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143), data output cable (part no. 7315-21, 7302-21)



depth stop 6143 (optional)



Part No.	Range	Accuracy
1187-150A	0-6"/0-150mm	±.0015"

DIGITAL OUTSIDE POINT CALIPER

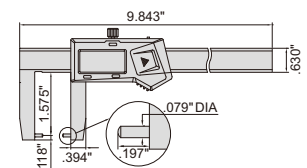
DATA OUTPUT

- Non waterproof
- Measure wall thickness inside bores and recesses
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (part no. 6143), data output cable (part no. 7315-21, 7302-21)

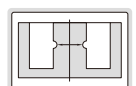


1185-150A

depth stop 6143 (optional)



Part No.	Range	Accuracy
1185-150A	0-6"/0-150mm	±.0015"



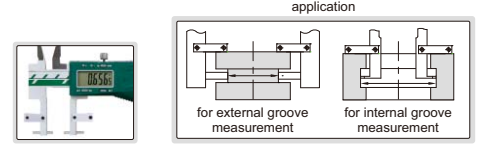
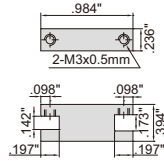
DEPTH STOP FOR CALIPERS

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

Part No.
6143



6143



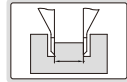
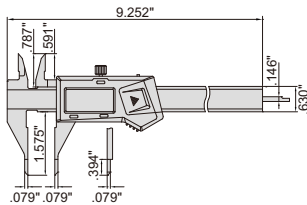
DIGITAL SMALL POINT CALIPER

DATA
OUTPUT



1169-150

- Non waterproof
- Small pointed jaws fit into small grooves and recesses
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1169-150	0-6"/0-150mm	±.0015"

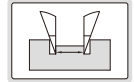
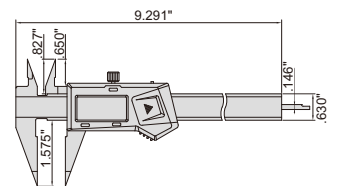
DIGITAL POINT CALIPER

DATA
OUTPUT



1183-150A

- Non waterproof
- Pointed jaws fit into small grooves and recesses
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1183-150A	0-6"/0-150mm	±.0015"

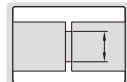
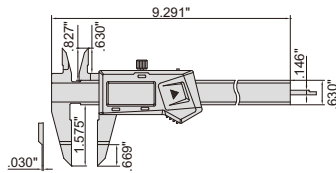
DIGITAL BLADE CALIPER

DATA
OUTPUT



1188-150A

- Non waterproof
- The blade jaws fit into small grooves
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1188-150A	0-6"/0-150mm	±.0015"

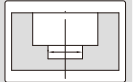
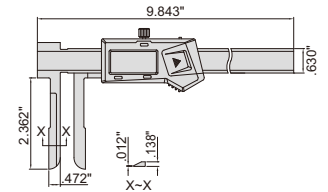
DIGITAL INSIDE KNIFE-EDGE CALIPER

DATA
OUTPUT



1123-150A

- Non waterproof
- Measure diameter of deep step holes
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1123-150A	.6-6"/15-150mm	±.0020"

DIGITAL CALIPER WITH KNIFE-EDGE LOWER JAWS

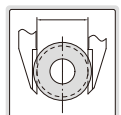
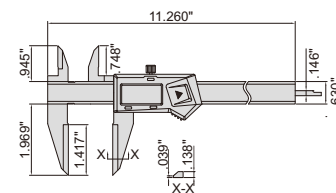
DATA
OUTPUT

- Non waterproof
- Measure diameter of narrow grooves
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1532-200

Part No.	Range	Accuracy
1532-200	0-8"/0-200mm	±.0015"



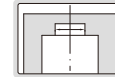
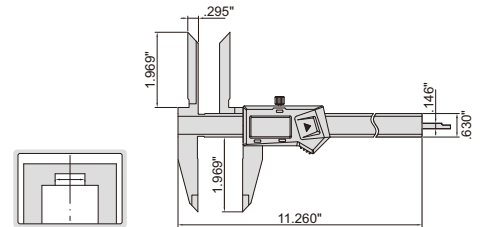
DIGITAL CALIPER WITH LONG UPPER JAWS

DATA OUTPUT

- Non waterproof
- Long upper jaws for measuring diameter of deep holes
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1138-200



Part No.	Range	Accuracy
1138-200	0-8"/0-200mm	±.0015"

DIGITAL OFFSET CENTERLINE CALIPER

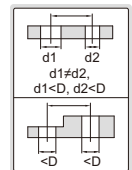
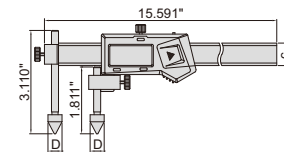
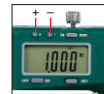
DATA OUTPUT

- Non waterproof
- Measure hole center distance in the same or offset planes
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, 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 (part no. 7315-21, 7302-21)



1192-300AE

preset buttons



Part No.	Range	Accuracy	c	D (DIA)
1192-300AE	.4-12"/10.5-300mm	±.0035"	.630"	.4"

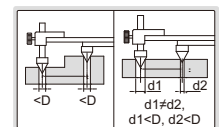
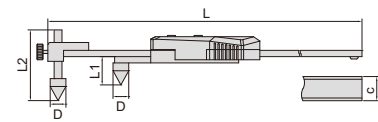
DIGITAL BACK-JAW CENTERLINE CALIPERS

DATA OUTPUT

- Non waterproof
- Measure hole center distance in the same or offset planes
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel



1177-300E



With data interface

Part No.	Range	Accuracy	c	D (DIA)	L1	L2	L	Data output cable (optional)
1177-300E	.4-12"/10.5-300mm	±.0040"	.630"	.4"	.709"	1.772"	16.142"	7315-21, 7302-21
1177-500E	.8-20"/20.5-500mm	±.0040"	.945"	.8"	1.024"	2.756"	27.244"	7315-22, 7302-22

DIGITAL BACK-JAW EDGE TO CENTER CALIPER

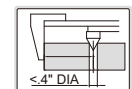
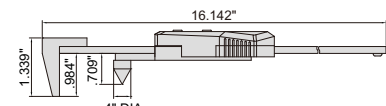
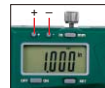
DATA OUTPUT

- Non waterproof
- Measure edge to hole center distance
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, 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 (part no. 7315-21, 7302-21)



1524-300E

preset buttons



Part No.	Range	Accuracy
1524-300E	.2-12"/5.5-300mm	±.0040"

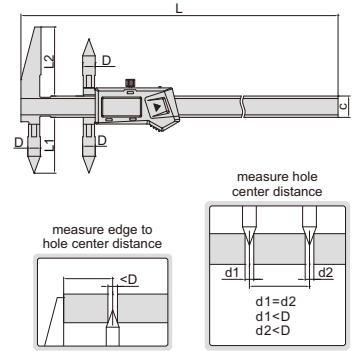
DIGITAL CENTERLINE AND EDGE TO CENTER CALIPERS

DATA OUTPUT

- Non waterproof
- Measure hole center distance or edge to hole center distance
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel



1525-300E



With data interface

Part No.	Range of upper jaw (edge to center)	Range of lower jaw (center to center)	Accuracy	c	D (DIA)	L1	L2	L	Data output cable (optional)
1525-300E	.2-12"/5.5-300mm	.4-12"/10.5-300mm	±.0030"	.669"	.4"	1.752"	2.165"	16.142"	7315-21, 7302-21
1525-500E	.4-20"/10.5-500mm	.8-20"/20.5-500mm	±.0035"	.945"	.8"	1.575"	1.969"	27.165"	7315-22, 7302-22

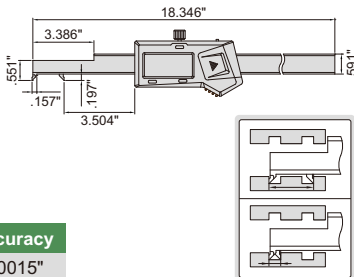
DIGITAL HOOK CALIPER

DATA OUTPUT



1122-300

- Non waterproof
- Measure width and distance of grooves inside bores
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1122-300	.16-12"/4-300mm	±.0015"

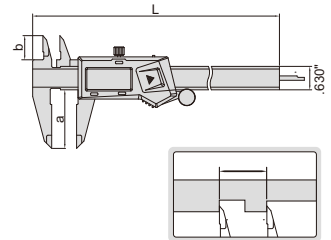
DIGITAL CALIPER WITH ONE DIRECTION UPPER JAWS

DATA OUTPUT



1184-150

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: zero, power on/off, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



jaws with same height used for measuring the distance in same level

Jaws with same height

Part No.	Range	Accuracy	L	a	b
1184-150	0-6"/0-150mm	±.0015"	9.291"	1.575"	.669"

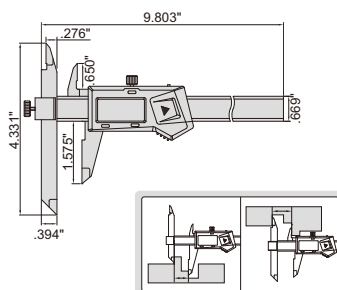
DIGITAL OFFSET CALIPER

DATA OUTPUT



1186-150A

- Non waterproof
- The left jaw can slide up and down to facilitate measurement of stepped sections
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1186-150A	0-6"/0-150mm	±.0015"

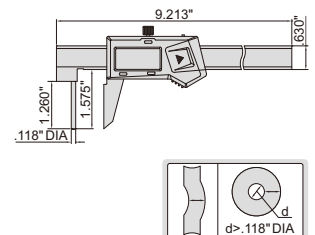
DIGITAL TUBE THICKNESS CALIPER

DATA OUTPUT



1161-150A

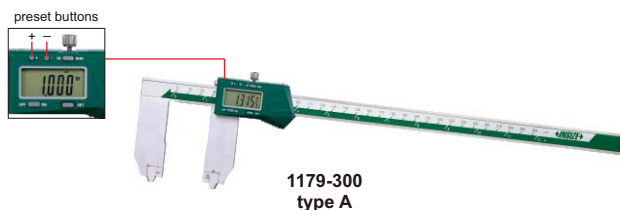
- Non waterproof
- Measure wall thickness of tubes
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1161-150A	0-6"/0-150mm	±.0020"

DIGITAL RTJ RING GROOVE CALIPERS

- Non waterproof
- Measure ring grooves of flange
- Resolution .0005"/0.01mm
- Button function: on/off, set, zero, inch/mm, data preset
- Battery CR2032, data output
- Made of stainless steel



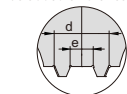
1179-300
type A



1179-600
type B

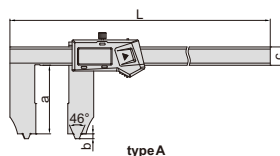
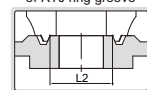
applicable for RTJ ring grooves with angle 23°

d and e need to be added on the reading

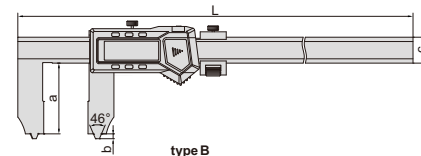


measure outside diameter of RTJ ring groove

measure inside diameter of RTJ ring groove



type A

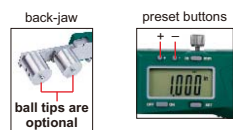


type B

Part No.	Range (inside diameter of RTJ ring groove)	Range (outside diameter of RTJ ring groove)	Angle of RTJ ring groove	Accuracy	Type	L	a	b	c	d	e	Data output cable (optional)
1179-300	.4-12"/10-300mm	1-12"/25-300mm	23°	±.0025"	A	16.142"	2.500"	.177"	.669"	.984"	.394"	7315-21, 7302-21
1179-600	.4-24"/10-600mm	1-24"/25-600mm	23°	±.0030"	B	30.315"	2.579"	.177"	.945"	.984"	.394"	7315-22, 7302-22

DATA OUTPUT

DIGITAL CALIPER WITH INTERCHANGEABLE BALL TIPS



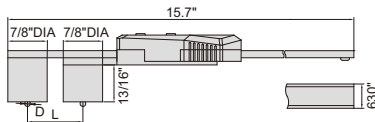
back-jaw
ball tips are optional



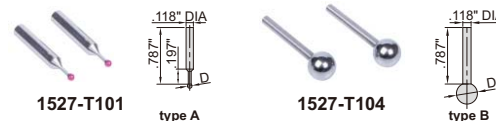
- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: ball tips, data output cable (part no. 7315-21, 7302-21)



1527-3001



ball tips (optional, supplied in pair)



1527-T101

type A

1527-T104

type B

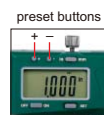
Part No.	Diameter (D)	Accuracy of diameter	Type	Material
1527-T101	1/16" DIA	.0002"	A	ruby
1527-T102	1/8" DIA	.0002"	B	stainless steel
1527-T103	3/16" DIA	.0002"	B	stainless steel
1527-T104	1/4" DIA	.0002"	B	stainless steel
1527-T105	3/8" DIA	.0002"	B	stainless steel
1527-T106	1/2" DIA	.0002"	B	stainless steel

Part No.	Range	Accuracy
1527-3001	(7/8"+D)~12"*	±.0015"

*"D" is the diameter of ball tips.

DATA OUTPUT

DIGITAL CALIPER WITH INTERCHANGEABLE BALL TIPS

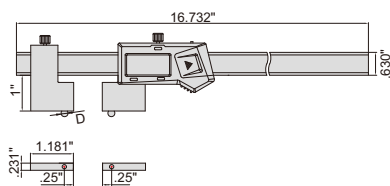


preset buttons

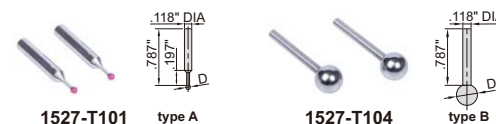


ball tips are optional

1528-3001



ball tips (optional, supplied in pair)



1527-T101

type A

1527-T104

type B

Part No.	Diameter (D)	Accuracy of diameter	Type	Material
1527-T101	1/16" DIA	.0002"	A	ruby
1527-T102	1/8" DIA	.0002"	B	stainless steel
1527-T103	3/16" DIA	.0002"	B	stainless steel
1527-T104	1/4" DIA	.0002"	B	stainless steel
1527-T105	3/8" DIA	.0002"	B	stainless steel
1527-T106	1/2" DIA	.0002"	B	stainless steel

Part No.	Range	Accuracy
1528-3001	(.5"+D)~12"*	±.0015"

*"D" is the diameter of ball tips.

DATA OUTPUT

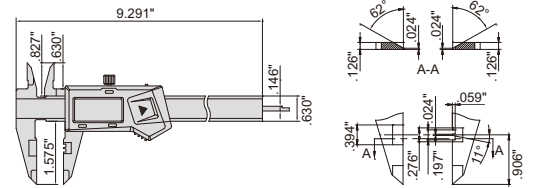
DIGITAL CRIMP HEIGHT CALIPER

DATA OUTPUT

- Non waterproof
- Measure crimp height
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1165-150A



Part No.	Range	Resolution	Accuracy
1165-150A	0-6"/0-150mm	.0005"/0.01mm	±.0015"

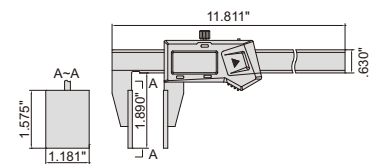
DIGITAL CALIPER WITH LARGE MEASURING FACES

DATA OUTPUT

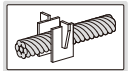
- Non waterproof
- Measure diameter of wire ropes, and thickness of soft materials like rubber, sponge, etc.
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



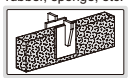
1172-200



measure diameter of wire ropes



measure thickness of rubber, sponge, etc.



Part No.	Range	Accuracy
1172-200	0-8"/0-200mm	±.0030"

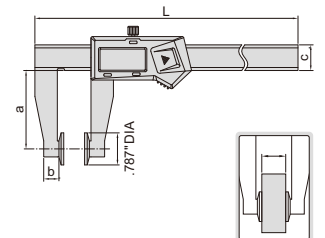
DIGITAL CALIPER WITH DISK FACES

DATA OUTPUT

- Non waterproof
- Measure thickness of soft sheets
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1533-150



Part No.	Range	Accuracy	L	a	b	c
1533-150	0-6"/0-150mm	±.0015"	9.646"	1.969"	.433"	.630"

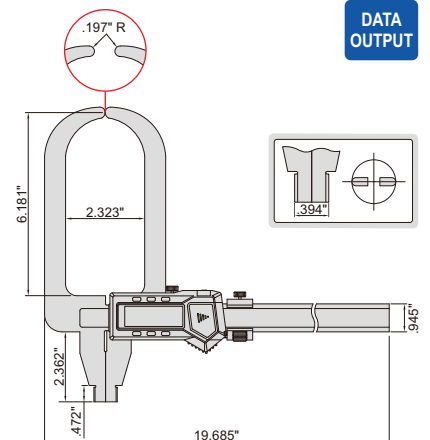
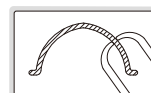
DIGITAL WALL THICKNESS CALIPER

DATA OUTPUT

- Non waterproof
- Measure wall thickness of helmets, domes and curved pots
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm, ABS, data 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 (part no. 7315-22, 7302-22)



1536-300



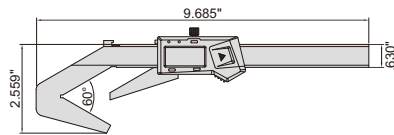
Part No.	Range	Accuracy
1536-300	0-12"/0-300mm	±.0020"

DIGITAL V SHAPE CALIPER

ATTENTION: ACTUAL DIAMETER IS 2/3 OF THE READING



1539-3



- Non waterproof
- Measure outside diameter of three number of flutes (such as taps, reamers, end mills and gears)
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Battery CR2032
- Automatic power off, move the digital unit to turn on power
- Data output
- Made of stainless steel

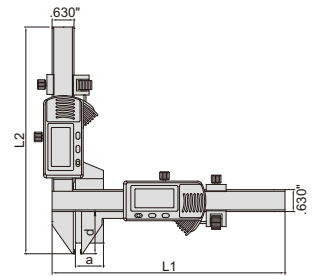
Part No.	Range	Accuracy
1539-3	.16-1.58" DIA/Ø4-40mm	±.0015"

DIGITAL GEAR TOOTH CALIPERS

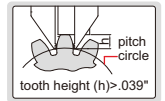
ATTENTION: NO DATA OUTPUT



1181-M25A



- Non waterproof
- Resolution .0005"/0.01mm
- Carbide tips
- Measure the tooth thickness by positioning the tooth height (for tooth height > .039")
- Buttons: zero, on/off, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel



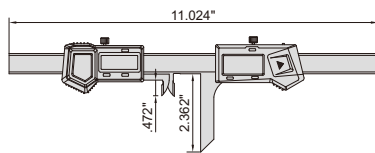
Part No.	Range	Accuracy	L1	L2	a	d
1181-M25A	P1-P24	±.0015"	6.693"	6.516"	.827"	1.201"
1181-M50A	P1/2-P5	±.0015"	8.661"	7.480"	1.988"	2.165"

KEYWAY SYMMETRY DIGITAL CALIPERS

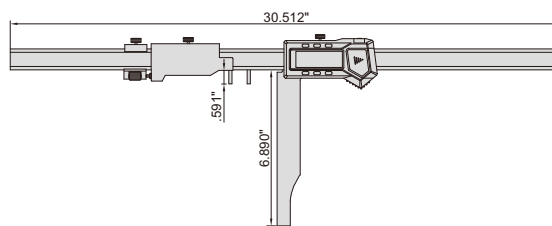
DATA OUTPUT



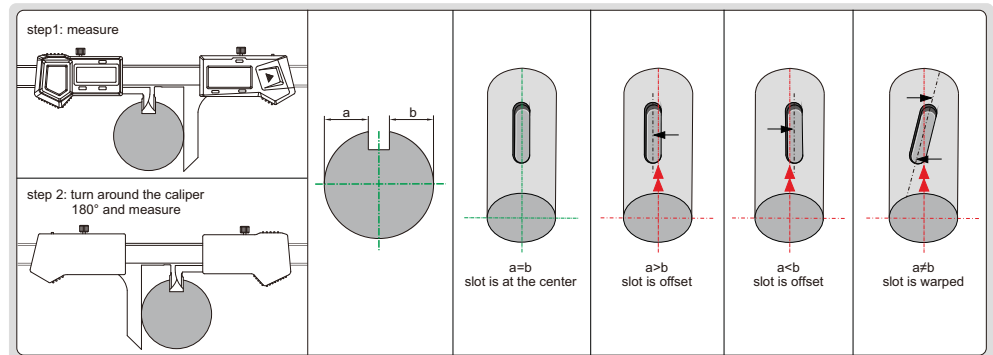
1531-60



1531-200



- Non waterproof
- Used to measure the symmetry of shaft keyways
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)

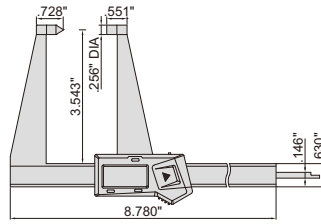


Part No.	Width of keyway	Diameter of shaft	Accuracy	Remarks
1531-60	.24-1.77"	.40-4.72" DIA	±.0020"	can measure keyway width
1531-200	.12-9.84"	.24-13.77" DIA	±.0020"	cannot measure keyway width

DIGITAL DISK BRAKE CALIPER

DATA OUTPUT

- Non waterproof
- Measure thickness of disk brakes
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1162-125A



Part No.	Range	Accuracy
1162-125A	0-5"/0-125mm	±.0020"

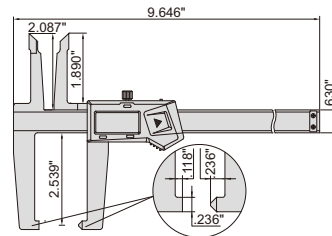
DIGITAL DISK BRAKE AND PAD CALIPER

DATA OUTPUT

- Non waterproof
- Measure thickness of disk brakes and pad wear
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1167-150A



Part No.	Range	Accuracy
1167-150A	0-6"/0-150mm	±.0030"

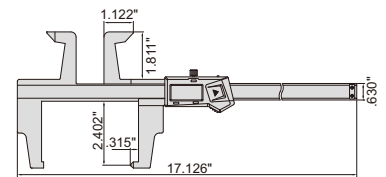
DIGITAL DRUM BRAKE CALIPER

DATA OUTPUT

- Non waterproof
- Measure internal and external diameter of drum brakes
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1168-300A

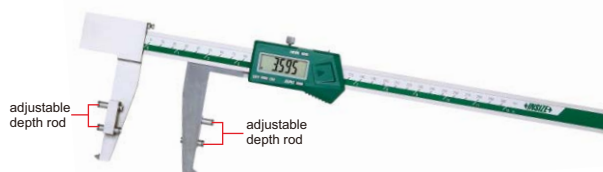


Part No.	Range	Accuracy
1168-300A	0-12"/0-300mm	±.0030"

DIGITAL DRUM BRAKE CALIPER

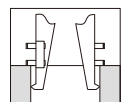
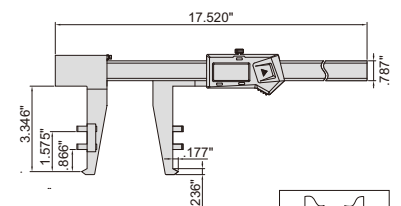
DATA OUTPUT

- Non waterproof
- Measure internal diameter of drum brakes
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)



1538-300

calibration block (included)



Part No.	Range	Accuracy
1538-300	1.2-12"/30-300mm	±.0020"

IP67 WATERPROOF DIGITAL DEPTH GAGES

IP67
WATERPROOF

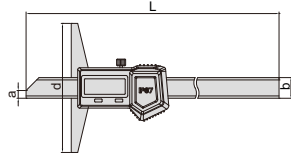
ATTENTION: IT IS NECESSARY TO SET ZERO AFTER POWER ON EACH TIME

ATTENTION: NO DATA OUTPUT



1149-150

- IP67 dust/waterproof
- Resolution .0005"/0.01mm
- Button function: zero, on/off, inch/mm, ABS/REL, hold
- Battery CR2032
- Made of stainless steel



Part No.	Range	Accuracy	L	a	b	d
1149-150	0-6"/0-150mm	±.0015"	9.449"	.236"	.630"	3.937"
1149-200	0-8"/0-200mm	±.0015"	11.417"	.236"	.630"	3.937"
1149-300	0-12"/0-300mm	±.0015"	15.354"	.236"	.630"	5.906"

DIGITAL DEPTH GAGES (STANDARD TYPE)

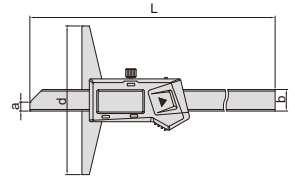
DATA OUTPUT

POPULAR MODEL



1141-150A

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel



With data interface (data output cable part no. 7315-21, 7302-21, optional)

Part No.	Range	Accuracy	L	a	b	d
1141-150A	0-6"/0-150mm	±.0015"	9.055"	.236"	.571"	3.937"
1141-200A	0-8"/0-200mm	±.0015"	11.024"	.236"	.571"	3.937"
1141-300A	0-12"/0-300mm	±.0015"	14.961"	.236"	.571"	5.906"

With data interface (data output cable part no. 7315-22, 7302-22, optional)

Part No.	Range	Accuracy	L	a	b	d
1141-500A	0-20"/0-500mm	±.0020"	23.031"	.276"	.591"	5.906"

DIGITAL DEPTH GAGES WITH MOUNTING HOLES FOR EXTENSION BASE

DATA OUTPUT

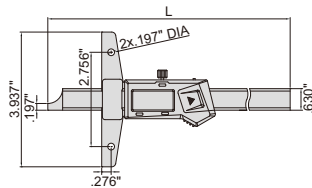


1147-300

extension base (optional)



- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21), extension base (part no. 6141)



Part No.	Range	Accuracy	L
1147-150	0-6"/0-150mm	±.0015"	9.331"
1147-200	0-8"/0-200mm	±.0015"	11.299"
1147-300	0-12"/0-300mm	±.0015"	15.866"

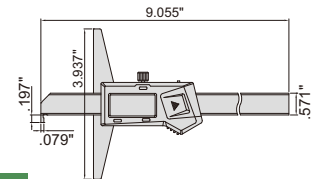
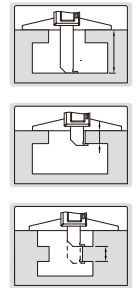
DIGITAL HOOK DEPTH GAGE

DATA OUTPUT



1142-150A

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy
1142-150A	0-6"/0-150mm	±.0015"

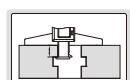
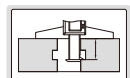
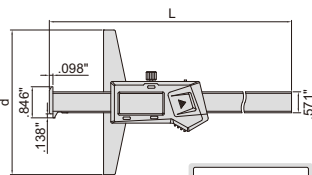
DIGITAL DOUBLE HOOK DEPTH GAGES

DATA OUTPUT



1144-150A

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy	L	d
1144-150A	0-6"/0-150mm	±.0015"	9.173"	3.937"
1144-200A	0-8"/0-200mm	±.0015"	11.142"	3.937"
1144-300A	0-12"/0-300mm	±.0015"	15.079"	5.906"

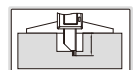
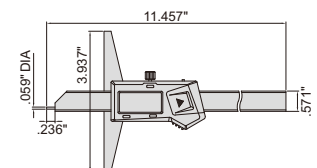
DIGITAL POINT DEPTH GAGE

DATA OUTPUT



1143-200A

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



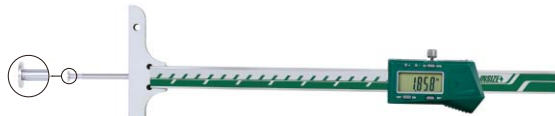
Part No.	Range	Accuracy
1143-200A	0-8"/0-200mm	±.0015"

DIGITAL DEPTH GAGES WITH ROUND DEPTH BAR

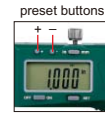
DATA OUTPUT

MEASURE WIDTH AND DEPTH OF GROOVES INSIDE BORE

MEASURE DEPTH OF SMALL HOLES (>.157" DIA)



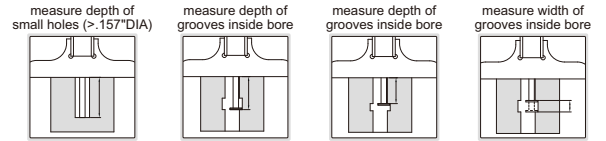
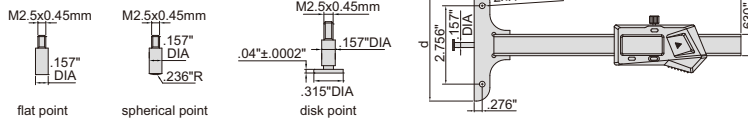
1148-200E



presets buttons



extension base for 1148-200E (optional)
6141 series



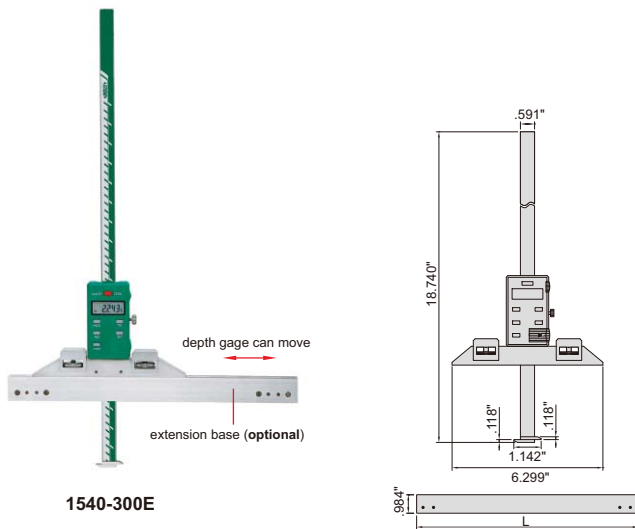
- Non waterproof
- Resolution .0005"/0.01mm
- Supplied with three interchangeable points (flat, spherical, disk)
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21), extension base (part no. 6141, for 1148-200E)

Part No.	Range *	Accuracy	L	d	Remark
1148-100E	0-4"/0-100mm	±.0010"	7.874"	3.346"	
1148-200E	0-8"/0-200mm	±.0015"	11.811"	3.976"	with mounting holes for extension base

*When disk points are used, the range is reduced by .394"

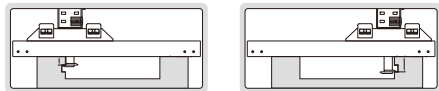
DIGITAL DOUBLE HOOK DEPTH GAGE

DATA OUTPUT



1540-300E

gage block for zero setting (included)



- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm, ABS/INC, data hold, TOL, set
- ABS/INC is for absolute and incremental measurement
- TOL is for tolerance measurement
- Made of stainless steel
- LR44 battery, data output
- Supplied with gage block for zero setting
- Optional accessory: extension base, wireless transmitter (part no. 7315-1150), data output cable (part no. 7302-SPC7, keyboard format)

extension base (optional)

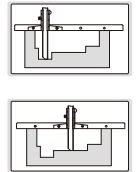
Part No.	L
1540-L300	11.811"
1540-L400	15.748"
1540-L500	19.685"
1540-L600	23.622"
1540-L800	31.496"

Part No.	Range	Accuracy
1540-300E	0-12"/0-300mm	±.0015"

EXTENSION BASES

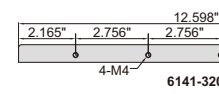
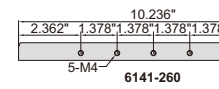
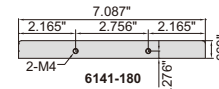


6141-260



- Supplied with two screws
- Made of stainless steel
- Suitable for depth gages series 1147 and 1148

Part No.	Length
6141-180	7.087"
6141-260	10.236"
6141-320	12.598"

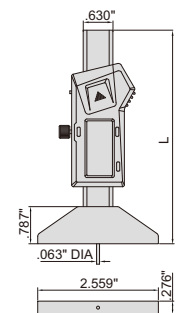


MINI DIGITAL DEPTH GAGES WITH ROUND BAR

DATA OUTPUT



1140-25

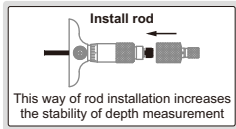


- Non waterproof
- Measure depth of small groove and hole
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)

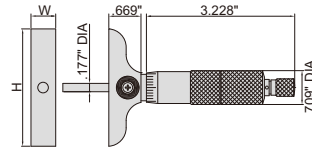
Part No.	Range	Accuracy	L
1140-25	0-1"/0-25mm	±.0010"	4.488"
1140-50	0-2"/0-50mm	±.0010"	5.512"
1140-100	0-4"/0-100mm	±.0010"	7.480"
1140-150	0-6"/0-150mm	±.0015"	9.291"



DEPTH MICROMETERS



3241-4



Base: H x W=2.480 x .669"

Part No.	Range	Rods
3241-B1	0-1"	1 pc
3241-B4	0-4"	4 pcs

Base: H x W=3.996 x .669"

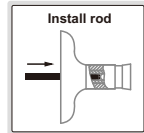
Part No.	Range	Rods
3241-1	0-1"	1 pc
3241-2	0-2"	2 pcs
3241-4	0-4"	4 pcs
3241-6	0-6"	6 pcs
3241-12	0-12"	12 pcs

- Graduation .001"
- Micrometer head accuracy: $\pm .00012$ "
- Rod accuracy: $\pm [.001 + .0005(L/3)]$ ", L is the measuring range in inch
- Rods with flat end
- Ratchet stop

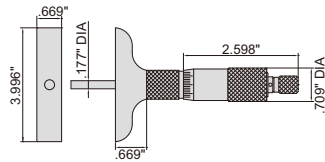
DEPTH MICROMETER



3240-6



- Graduation .001"
- Micrometer head accuracy: $\pm .00012$ "
- Rod accuracy: $\pm [.001 + .0005(L/3)]$ ", L is the measuring range in inch
- Rods with flat end
- Ratchet stop

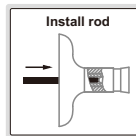


Part No.	Range	Rods
3240-6	0-6"	6 pcs

DIGITAL DEPTH MICROMETERS

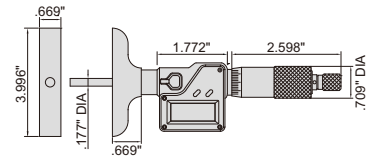
IP65
WATERPROOF

DATA
OUTPUT



3540-150E

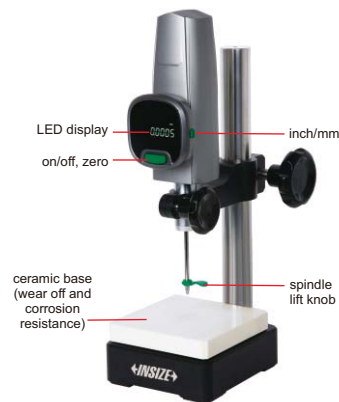
- Resolution .00005"/0.001mm
- Micrometer head accuracy: $\pm .00012$ "
- Rod accuracy: $\pm [.001 + .0005(L/3)]$ ", L is the measuring range in inch
- Button function: on/off, set, inch/mm, data transmit
- IP65 dust/waterproof
- Data output
- Automatic power off
- Rods with flat end
- Ratchet stop
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



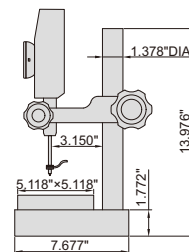
Part No.	Range	Rods
3540-150E	0-6"/0-150mm	6 pcs
3540-300E	0-12"/0-300mm	12 pcs

HIGH PRECISION DIGITAL HEIGHT GAGES

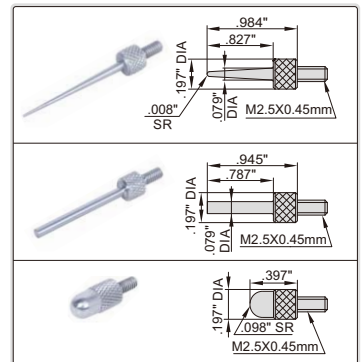
DATA
OUTPUT



1155-505



measuring tips (included)



- Power supply: 5V/1A (adapter or charge pal)
- High stability, high precision, high response speed (200"/s)
- High brightness LED display
- Ceramic base flatness: 39 μ m



Part No.	Range	Resolution	Accuracy (68°F)	Measuring force	Output
1155-505	0~2"	.00002"/.5 μ m (can switch to .00005"/1 μ m)	59 μ m	.18lbf~.27lbf	USB
1155-510	0~2"	.000005"/.1 μ m (can switch to .00005"/1 μ m)	39 μ m	.18lbf~.27lbf	USB

STANDARD DELIVERY

Main unit	1 pc
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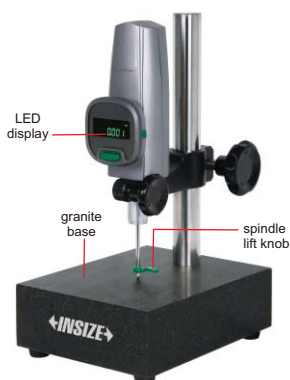
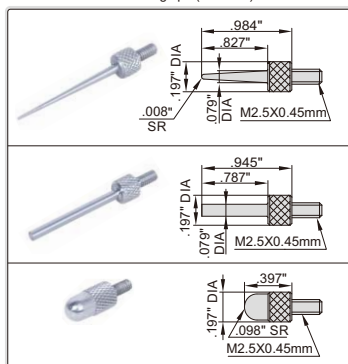
OPTIONAL ACCESSORY

Contact point	part no. 6282
Charge pal	1155-5-POB
Data output cable (including foot switch)	1155-5-FOS

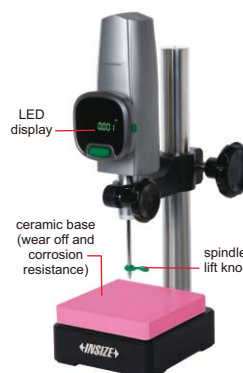
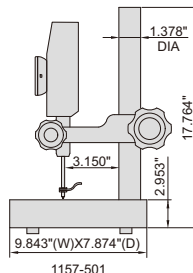
DIGITAL HEIGHT GAGES

DATA OUTPUT

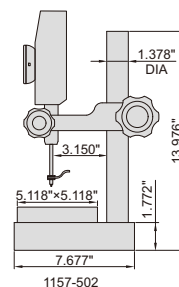
measuring tips (included)



1157-501



1157-502



- Accuracy (68°F): 118µin
- Measuring force .18lbf~.27lbf
- Power supply: 5V/1A (adapter or charge pal)
- Buttons: on/off, zero, inch/mm, mix/min/mix-min
- High response speed (200"/s)
- High brightness LED display

Part No.	Range	Resolution	Output	Base
1157-501	0~2"	.00005"/1µm	USB	granite (flatness: 78µin)
1157-502	0~2"	.00005"/1µm	USB	ceramic (flatness: 39µin)

OPTIONAL ACCESSORY

Contact point	part no. 6282
Charge pal	1155-5-POB
Data output cable (including foot switch)	1155-5-FOS

STANDARD DELIVERY

Main unit	1 pc
-----------	------



foot switch

data transmitted to Excel without software; short press the foot switch to transmit data, long press to zero

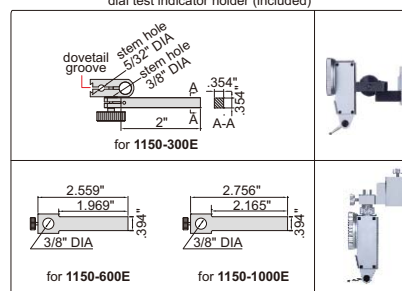


power supplied by charge pal

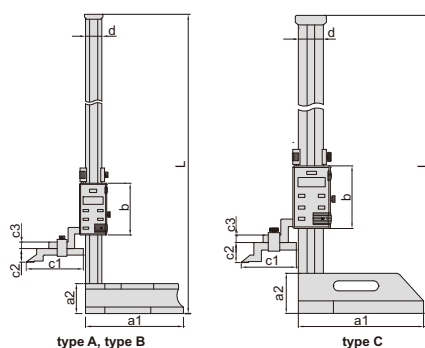
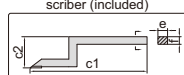
DIGITAL HEIGHT GAGES

DATA OUTPUT

dial test indicator holder (included)



scraper (included)



type A, type B

type C

clamp for protractors (optional) for 1150-300E



2372-CLAMP

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm, 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
- Supplied with dust cover
- Optional accessory: wireless transmitter (part no. 7315-1150), data output cable (part no. 7302-SPC7, keyboard format), clamp for protractors (part no. 2372-CLAMP, for 1150-300E)



1150-300E

1150-600E

1150-1000E

Part No.	Range	Type	Accuracy	L	a1	a2	b	c1	c2	c3	d	e	f
1150-300E	0-12"/0-300mm	A	±.0015"	19.094"	5.433"	1.772"	3.740"	3.150"	1.181"	.394"	1.102"	.354"	.354"
1150-600E	0-24"/0-600mm	B	±.0025"	32.283"	7.087"	2.165"	3.740"	4.055"	.984"	.472"	1.181"	.394"	.472"
1150-1000E	0-40"/0-1000mm	C	±.0030"	50.197"	9.843"	3.150"	4.921"	4.331"	1.535"	.591"	1.969"	.394"	.591"

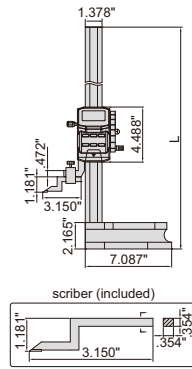
DIGITAL HEIGHT GAGES WITH DRIVING WHEEL

POPULAR MODEL

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm, preset +, preset -, ABS/INC
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steel
- Battery CR2032, data output
- Supplied with dust cover
- With dial test indicator holder
- Optional accessory: data output cable (part no. 7315-22, 7302-22), clamp for protractors (part no. 2372-CLAMP)

Part No.	Range	Accuracy	L
1156-300	0-12"/0-300mm	±.0015"	20.276"
1156-600	0-24"/0-600mm	±.0020"	32.867"

*Supplied with manufacturer inspection certificate



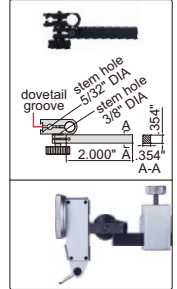
1156-300

clamp for protractors (optional)



2372-CLAMP

dial test indicator holder (included)



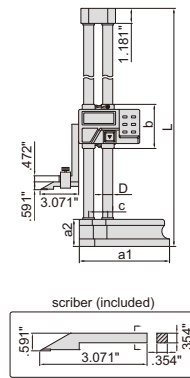
DIGITAL HEIGHT GAGES

DATA OUTPUT

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm, data hold, ABS/INC, preset
- ABS/INC is for absolute and incremental measurement
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steel
- Battery CR2032, data output
- With driving wheel
- With dial test indicator holder
- Supplied with dust cover
- Optional accessory: clamp for protractors (part no. 2372-CLAMP), wireless transmitter (part no. 7315-1151), data output cable (part no. 7302-1151, keyboard format)

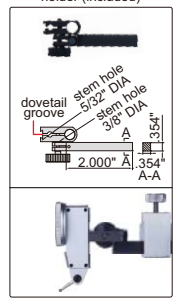


driving wheel on the back



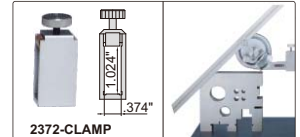
1151-300AE

dial test indicator holder (included)



Part No.	Range	Accuracy	L	a1	a2	b	c	D
1151-300AE	0-12"/0-300mm	±.0015"	18.701"	5.315"	1.693"	3.307"	1.299"	.591" DIA
1151-600AE	0-24"/0-600mm	±.0020"	31.890"	7.087"	2.126"	3.465"	1.496"	.787" DIA

clamp for protractors (optional)



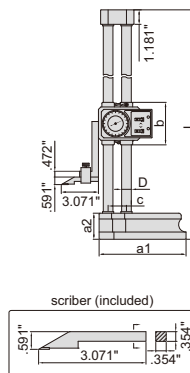
2372-CLAMP

DIAL HEIGHT GAGES

- Dial indicator graduation .001"
- 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
- With dial test indicator holder
- Supplied with dust cover
- Optional accessory: clamp for protractors (part no. 2372-CLAMP)

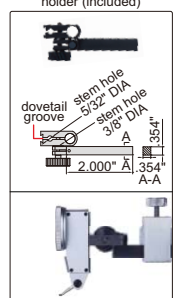


driving wheel on the back



1351-12

dial test indicator holder (included)



Part No.	Range	Accuracy	L	a1	a2	b	c	D
1351-12	0-12"	±.0016"	18.701"	5.315"	1.693"	3.307"	1.299"	.591" DIA
1351-18	0-18"	±.0020"	25.984"	7.087"	2.126"	3.465"	1.496"	.787" DIA

clamp for protractors (optional)



2372-CLAMP

MINI DIGITAL HEIGHT GAGES

DATA
OUTPUT

- Non waterproof
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- With fine adjustment
- Made of stainless steel
- Battery CR2032
- Optional accessory:
dial test indicator holder (part no. 7151-CL1)

With data interface
(data output cable part no. 7315-21, 7302-21, optional)

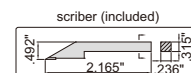
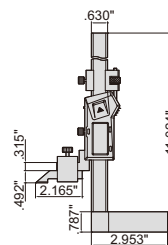
Part No.	Range	Resolution	Accuracy
1154-150	0-6"/0-150mm	.0005"/0.01mm	±.0015"

Built-in wireless (receiver part no. 7315-2/3/6/7/8/9 is required)

Part No.	Range	Resolution	Accuracy
1154-150WL	0-6"/0-150mm	.0005"/0.01mm	±.0015"

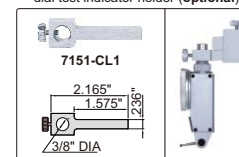


1154-150



scriber (included)

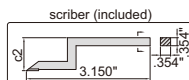
dial test indicator holder (optional)



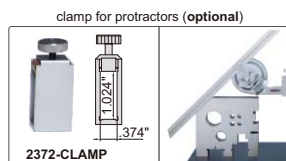
7151-CL1

VERNIER HEIGHT GAGES

- Graduation .001"/0.02mm
- 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
- Supplied with dust cover
- Optional accessory:
dial test indicator holder (part no. 6293-7),
clamp for protractors (part no. 2372-CLAMP)

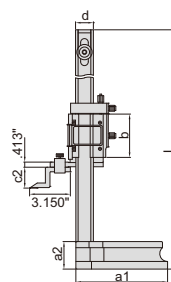


scriber (included)



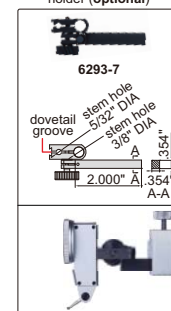
clamp for protractors (optional)

2372-CLAMP



1250-300

dial test indicator holder (optional)

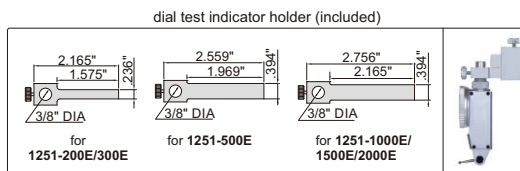


6293-7

Part No.	Range	Accuracy	L	a1	a2	b	c2	d
1250-300	0-12"/0-300mm	±.0016"	21.457"	5.315"	1.693"	2.953"	1.181"	1.102"
1250-600	0-24"/0-600mm	±.0020"	34.252"	7.087"	2.126"	3.346"	1.614"	1.378"

VERNIER HEIGHT GAGES (BASIC TYPE)

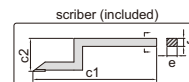
- Graduation .001"/0.02mm
- Carbide tipped scriber
- Made of stainless steel (except the base)
- Satin chrome plated scale
- With dial test indicator holder
- Supplied with dust cover



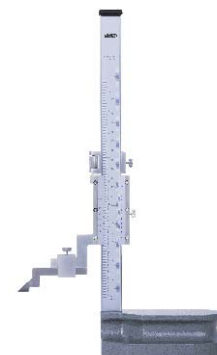
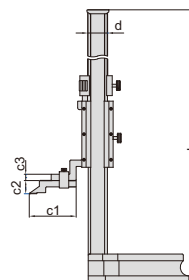
for 1251-200E/300E

for 1251-500E

for 1251-1000E/
1500E/2000E



scriber (included)

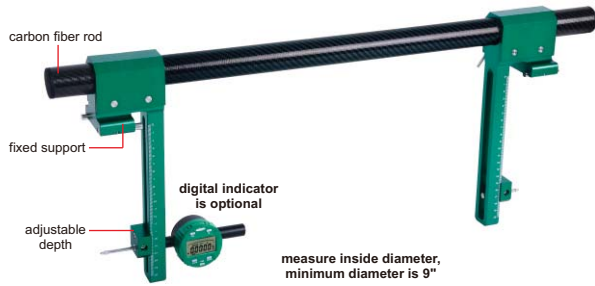
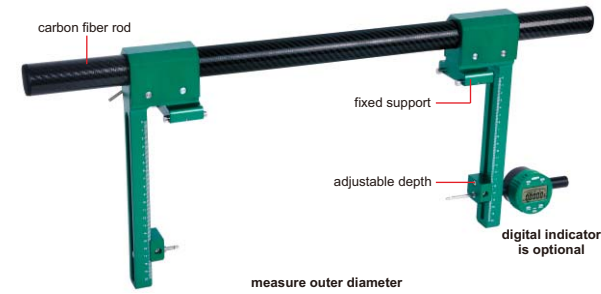


1251-200E

Part No.	Range	Accuracy	L	c1	c2	c3	d	e	f
1251-200E	0-8"/0-200mm	±.0012"	14.567"	2.992"	.984"	.394"	.906"	.236"	.315"
1251-300E	0-12"/0-300mm	±.0016"	18.504"	2.992"	.984"	.394"	.906"	.236"	.315"
1251-500E	0-20"/0-500mm	±.0020"	28.346"	4.134"	.984"	.472"	1.181"	.394"	.472"
1251-1000E	0-40"/0-1000mm	±.0028"	50.197"	4.331"	1.535"	.591"	1.969"	.394"	.591"
1251-1500E	0-60"/0-1500mm	±.0043"	70.472"	4.331"	1.535"	.591"	1.969"	.394"	.591"
1251-2000E	0-80"/0-2000mm	±.0055"	90.157"	4.331"	1.535"	.591"	1.969"	.394"	.591"

CARBON FIBER COMPARISON GAGES

CARBON FIBER RODS, LIGHT WEIGHT, NOT EASY TO DEFORM, NO TEMPERATURE EXPAND, SUITABLE FOR THIN-WALL WORKPIECES AND LARGE-SIZE WORKPIECES

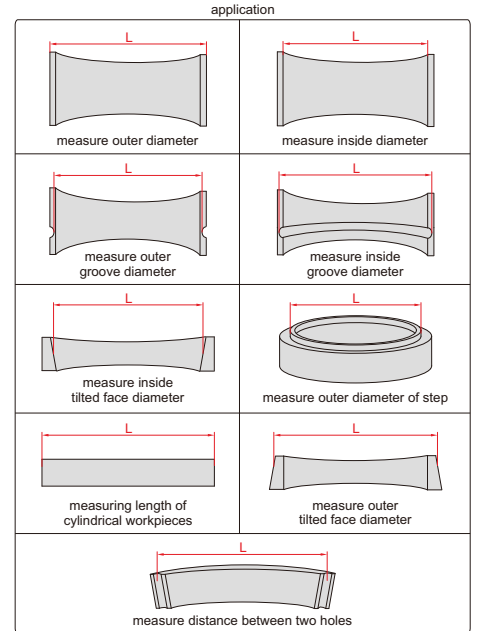
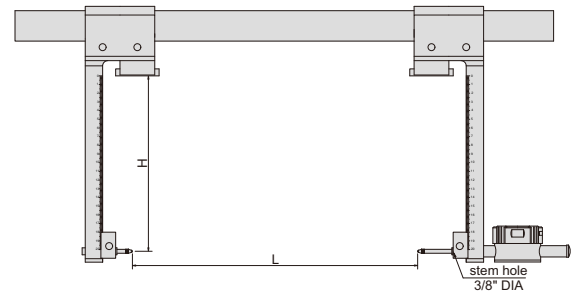


2931-D2000BE

- Measure outer diameter, inside diameter, holes distance and cylindrical workpiece length
- Carbon fiber rods, light weight, not easy to deform, no temperature expand
- Optional accessory: cylinder gage blocks (part no. 4001), digital indicators



Part No.	Maximum measuring range (L)	Measuring depth (H)	Repeatability	Weight
2931-D1000AE	40"	0-4"	.0002"	4.41lb
2931-D2000BE	80"	0-8"	.0008"	6.39lb
2931-D3000BE	120"	0-8"	.0012"	7.72lb
2931-D3000CE	120"	0-12"	.0024"	8.38lb
2931-D4000CE	160"	0-12"	.0026"	9.70lb



DIGITAL MICROMETERS/SNAP GAGES

ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

MEASUREMENT ACCURACY IS NOT AFFECTED BY THE USE OF SLEEVE

IP65 WATERPROOF

DATA OUTPUT

- Absolute encoder, the original data remains after power off
- Resolution .00005"/0.001mm
- One turn of sleeve makes .4" spindle feed
- Measurement accuracy is not affected by the use of sleeve
- Press the fork, the spindle retracts .12"
- Carbide spindle and anvil
- Measuring force 5-10N
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, inch/mm
- Supplied with gage blocks for zero setting (except 0-1"/0-25mm)
- Power: rechargeable battery, for 24 hours continuous working

ONE TURN OF SLEEVE MAKES .4" SPINDLE FEED, PRESS THE FORK, THE SPINDLE RETRACTS .12"

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF



3358-25

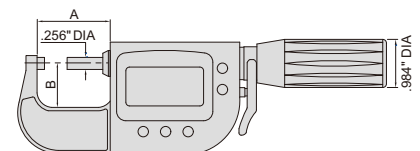
NON-ROTATING SPINDLE

INSPECTION CERTIFICATE

With data interface

Optional accessory:
wireless transmitter, part no. 7315-3350
data output cable (keyboard format), part no. 7302-3350

Part No.	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3358-25*	0-1"/0-25mm	±.00010"	.00005"	.00002"	.00005"	1.496"	.945"
3358-50*	1-2"/25-50mm	±.00010"	.00005"	.00002"	.00005"	2.520"	1.280"



Built-in wireless

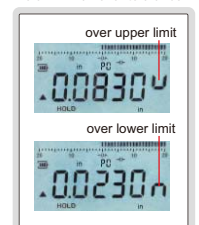
Optional accessory:
wireless receiver (keyboard format, connect up to 15 digital indicators), part no. 2134-R1
wireless receiver (serial port format, connect up to 15 digital indicators), part no. 2134-R2

Part No.	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3358-25WL*	0-1"/0-25mm	±.00010"	.00005"	.00002"	.00005"	1.496"	.945"
3358-50WL*	1-2"/25-50mm	±.00010"	.00005"	.00002"	.00005"	2.520"	1.280"

*Supplied with manufacturer inspection certificate



alarm when over tolerance





HIGH PRECISION DIGITAL MICROMETERS/SNAP GAGES

ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

MEASUREMENT ACCURACY IS NOT AFFECTED BY THE USE OF SLEEVE

IP65 WATERPROOF

NON-ROTATING SPINDLE

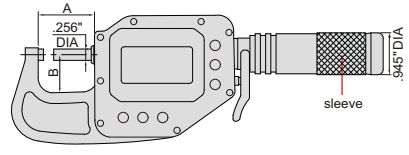
DATA OUTPUT

ONE TURN OF SLEEVE MAKES .2" SPINDLE FEED, PRESS THE FORK, THE SPINDLE RETRACTS .12"

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF



3350-25

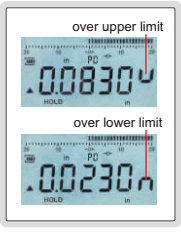


- Absolute encoder, the original data remains after power off
- Adjustable resolution .00001"/0.0002mm
.00005"/0.001mm
.0005"/0.01mm
- One turn of sleeve makes .2" spindle feed
- Measurement accuracy is not affected by the use of sleeve
- Press the fork, the spindle retracts .12"
- Linear ball bearings for ten million times use
- Carbide spindle and anvil
- Measuring force 7-10N.
Customizable measuring force range 2-12N.
Attention: small measuring force will reduce the dustproof and waterproof level
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, inch/mm, adjust resolution
- Supplied with gage blocks for zero setting (except 0-1"/0-25mm)
- Power: rechargeable battery, for 24 hours continuous working

wireless receiver
2134-R1, 2134-R2 (optional)



alarm when over tolerance



With data interface

Optional accessory:
wireless transmitter, part no. 7315-3350
data output cable (keyboard format), part no. 7302-3350

Part No.	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3350-25*	0-1"/0-25mm	±.00005"	.00002"	.00002"	.00004"	1.496"	.945"
3350-50*	1-2"/25-50mm	±.00006"	.00004"	.00002"	.00004"	2.480"	1.102"
3350-75*	2-3"/50-75mm	±.00007"	.00004"	.00002"	.00004"	3.464"	1.772"
3350-100*	3-4"/75-100mm	±.00008"	.00004"	.00002"	.00004"	4.449"	2.244"

Built-in wireless

Optional accessory:
wireless receiver (keyboard format, connect up to 15 digital indicators), part no. 2134-R1
wireless receiver (serial port format, connect up to 15 digital indicators), part no. 2134-R2

Part No.	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3350-25WL*	0-1"/0-25mm	±.00005"	.00002"	.00002"	.00004"	1.496"	.945"
3350-50WL*	1-2"/25-50mm	±.00006"	.00004"	.00002"	.00004"	2.480"	1.102"
3350-75WL*	2-3"/50-75mm	±.00007"	.00004"	.00002"	.00004"	3.464"	1.772"
3350-100WL*	3-4"/75-100mm	±.00008"	.00004"	.00002"	.00004"	4.449"	2.244"

*Supplied with manufacturer inspection certificate

HIGH PRECISION DIGITAL MICROMETERS/SNAP GAGES

ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

MEASUREMENT ACCURACY IS NOT AFFECTED BY THE USE OF SLEEVE

IP65 WATERPROOF

DATA OUTPUT



VIDEO

- Absolute encoder, the original data remains after power off
- Adjustable resolution .00001"/0.0002mm (when the reading exceeds 10", .00001" is automatically switched to .0001")
- .00005"/0.001mm (when the reading exceeds 10", .00005" is automatically switched to .0001")
- .0005"/0.01mm
- One turn of sleeve makes .2" spindle feed
- Measurement accuracy is not affected by the use of sleeve
- Press the fork, the spindle retracts .12"
- Linear ball bearings for ten million times use
- Carbide spindle and anvil
- Measuring force 5-8N
- Customizable measuring force range 2-12N
- Attention: small measuring force will reduce the dustproof and waterproof level
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, inch/mm, adjust resolution
- Supplied with gage blocks for zero setting
- Power: rechargeable battery, for 24 hours continuous working

With data interface

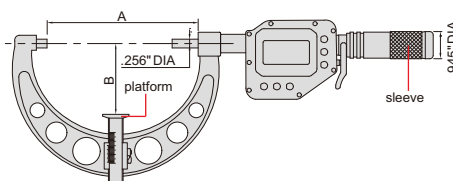
Optional accessory:
wireless transmitter, part no. **7315-3350**
data output cable (keyboard format), part no. **7302-3350**

ONE TURN OF SLEEVE MAKES .2" SPINDLE FEED, PRESS THE FORK, THE SPINDLE RETRACTS .12"

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF



3351-125



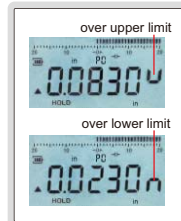
NON-ROTATING SPINDLE

INSPECTION CERTIFICATE

gage blocks for zero setting (included)



alarm when over tolerance



wireless receiver 2134-R1, 2134-R2 (optional)



Part No.	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3351-125*	4-5"/100-125mm	±.00012"	.00004"	.00002"	.00008"	5.039"	2.461"
3351-150*	5-6"/125-150mm	±.00012"	.00004"	.00002"	.00008"	6.024"	2.953"
3351-175*	6-7"/150-175mm	±.00016"	.00004"	.00002"	.00010"	7.008"	3.445"
3351-200*	7-8"/175-200mm	±.00016"	.00004"	.00002"	.00010"	7.992"	3.937"

*Supplied with manufacturer inspection certificate

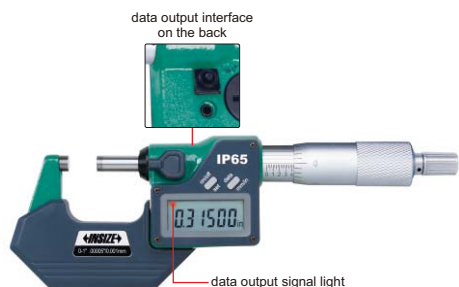
WATERPROOF DIGITAL OUTSIDE MICROMETERS (WITH DATA OUTPUT INTERFACE)

INSPECTION CERTIFICATE

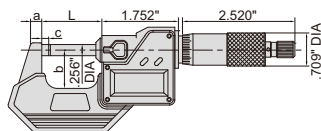
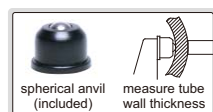
POPULAR MODEL

IP65 WATERPROOF

DATA OUTPUT



3101-25E



Individual

Part No.	Range	Accuracy	L	a	b	c
3101-25E*	0-1"/0-25mm	±.00010"	1.358"	.236"	.984"	.118"
3101-50E*	1-2"/25-50mm	±.00010"	2.343"	.315"	1.260"	.118"
3101-75E*	2-3"/50-75mm	±.00015"	3.327"	.315"	1.752"	.118"
3101-100E*	3-4"/75-100mm	±.00015"	4.311"	.315"	2.244"	.118"
3101-125E	4-5"/100-125mm	±.00015"	5.315"	.394"	2.756"	.118"
3101-150E	5-6"/125-150mm	±.00015"	6.319"	.394"	3.228"	.118"
3101-175E	6-7"/150-175mm	±.00020"	7.323"	.472"	3.720"	.217"



3101-33E



3101-66E

Set

Part No.	Range	Micrometers included	Packaging
3101-33E*	0-3"/0-75mm	3101-25E, 3101-50E, 3101-75E	blow mould case
3101-44E*	0-4"/0-100mm	3101-25E, 3101-50E, 3101-75E, 3101-100E	blow mould case
3101-66E	0-6"/0-150mm	3101-25E, 3101-50E, 3101-75E, 3101-100E, 3101-125E, 3101-150E	aluminum box

*Supplied with manufacturer inspection certificate

- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Automatic power off
- Carbide measuring faces
- Supplied with spherical anvil
- Setting standards are included (except 0-1"/0-25mm)
- Optional accessory: data output cable (part no. **7315-31, 7302-31**)

WATERPROOF DIGITAL OUTSIDE MICROMETERS (WITHOUT DATA OUTPUT)

INSPECTION CERTIFICATE

ATTENTION: NO DATA OUTPUT

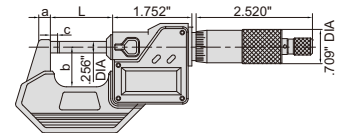
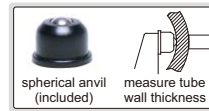
IP65 WATERPROOF

- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, ABS/INC
- No data output
- Automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with spherical anvil
- Setting standards are included (except 0-1"/0-25mm)



3108-1

Part No.	Range	Accuracy	L	a	b	c
3108-1*	0-1"/0-25mm	±.00010"	1.358"	.236"	.984"	.118"
3108-2*	1-2"/25-50mm	±.00010"	2.343"	.315"	1.260"	.118"
3108-3*	2-3"/50-75mm	±.00015"	3.327"	.315"	1.752"	.118"
3108-4*	3-4"/75-100mm	±.00015"	4.311"	.315"	2.244"	.118"



*Supplied with manufacturer inspection certificate

DIGITAL OUTSIDE MICROMETERS (BASIC TYPE, WITHOUT DATA OUTPUT)

INSPECTION CERTIFICATE

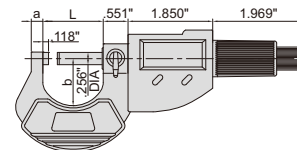
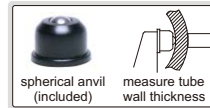
ATTENTION: NO DATA OUTPUT



- Resolution .00005"/0.001mm
- Button function: on/off, set, inch/mm, ABS/INC
- No data output
- Automatic power off
- Carbide measuring faces
- Friction thimble
- Supplied with spherical anvil
- Setting standards are included (except 0-1"/0-25mm)



3109-25E



POPULAR MODEL



3109-33E



3109-66E

Individual

Part No.	Range	Accuracy	L	a	b
3109-25E*	0-1"/0-25mm	±.00010"	1.260"	.236"	1.083"
3109-50E*	1-2"/25-50mm	±.00010"	2.244"	.315"	1.457"
3109-75E*	2-3"/50-75mm	±.00015"	3.228"	.315"	1.969"
3109-100E*	3-4"/75-100mm	±.00015"	4.213"	.394"	2.402"
3109-125E	4-5"/100-125mm	±.00015"	5.197"	.394"	2.874"
3109-150E	5-6"/125-150mm	±.00015"	6.181"	.394"	3.346"

*Supplied with manufacturer inspection certificate

Set

Part No.	Range	Micrometers included	Packaging
3109-33E*	0-3"/0-75mm	3109-25E, 3109-50E, 3109-75E	blow mould case
3109-44E*	0-4"/0-100mm	3109-25E, 3109-50E, 3109-75E, 3109-100E	blow mould case
3109-66E	0-6"/0-150mm	3109-25E, 3109-50E, 3109-75E, 3109-100E, 3109-125E, 3109-150E	aluminum box

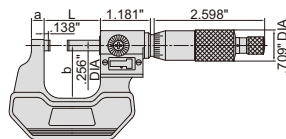
OUTSIDE MICROMETERS WITH COUNTER



3400-1

INSPECTION CERTIFICATE

- Counter resolution .001"
- Thimble graduation .0001"
- Carbide measuring faces
- Ratchet stop
- Supplied with setting standards (except 0-1")



Part No.	Range	Accuracy	L	a	b
3400-1*	0-1"	.00015"	1.260"	.236"	1.024"
3400-2*	1-2"	.00015"	2.244"	.315"	1.260"
3400-3*	2-3"	.00020"	3.228"	.315"	1.752"
3400-4*	3-4"	.00020"	4.213"	.315"	2.244"

*Supplied with manufacturer inspection certificate

-Size available up to 11-12"

OUTSIDE MICROMETER FOR LEFT OR RIGHT HANDERS

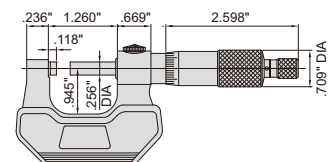


front

back

3236-1B

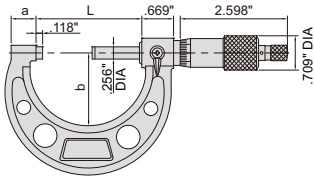
- Graduation .001"
- Graduations on two sides
- Ratchet stop
- Carbide measuring faces



Part No.	Range	Accuracy
3236-1B	0-1"	.00015"

OUTSIDE MICROMETERS

POPULAR MODEL



3203-2A

- Graduation .0001"
- Carbide measuring faces
- Ratchet stop type
- Supplied with setting standards (except 0-1")

Individual

Part No.	Range	Accuracy	L	a	b
3203-1A *	0-1"	.00015"	1.260"	.354"	1.102"
3203-2A *	1-2"	.00015"	2.244"	.551"	1.496"
3203-3A *	2-3"	.00020"	3.228"	.591"	1.929"
3203-4A *	3-4"	.00020"	4.213"	.591"	2.362"
3203-5A *	4-5"	.00025"	5.236"	.650"	2.874"
3203-6A *	5-6"	.00025"	6.220"	.650"	3.346"
3203-7A	6-7"	.00030"	7.205"	.764"	4.094"
3203-8A	7-8"	.00030"	8.228"	.764"	4.606"
3203-9A	8-9"	.00030"	9.213"	.764"	5.118"
3203-10A	9-10"	.00030"	10.236"	.764"	5.591"
3203-11A	10-11"	.00035"	11.220"	.764"	6.102"
3203-12A	11-12"	.00035"	12.205"	.764"	6.614"

Set

Part No.	Range	Micrometers included	Packaging
3203-33A *	0-3"	3203-1A, 3203-2A, 3203-3A	blow mould case
3203-44A *	0-4"	3203-1A, 3203-2A, 3203-3A, 3203-4A	blow mould case
3203-66A *	0-6"	3203-1A, 3203-2A, 3203-3A, 3203-4A, 3203-5A, 3203-6A	blow mould case
3203-126A	6-12"	3203-7A, 3203-8A, 3203-9A, 3203-10A, 3203-11A, 3203-12A	aluminum box
3203-1212A	0-12"	3203-1A, 3203-2A, 3203-3A, 3203-4A, 3203-5A, 3203-6A, 3203-7A, 3203-8A, 3203-9A, 3203-10A, 3203-11A, 3203-12A	aluminum box



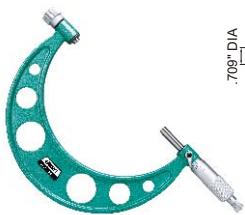
3203-44A



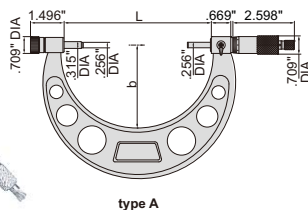
3203-126A

* Supplied with manufacturer inspection certificate

OUTSIDE MICROMETERS WITH INTERCHANGEABLE ANVILS



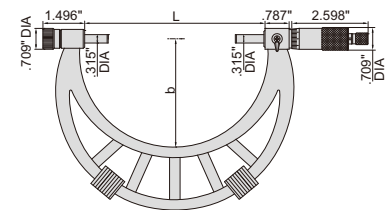
3206-6



type A



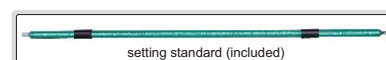
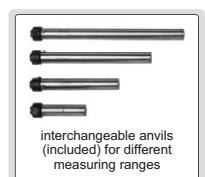
3206-16



type B

Part No.	Range	Type	Accuracy	L	b	Setting standard (included)
3206-4	0-4"	A	.00020"	4.252"	2.244"	1", 2", 3"
3206-6	0-6"	A	.00025"	6.220"	3.228"	1", 2", 3", 4", 5"
3206-8	4-8"	A	.00030"	8.189"	4.488"	4", 5", 6", 7"
3206-12	6-12"	A	.00035"	12.126"	6.496"	6", 7", 8", 9", 10", 11"
3206-121	8-12"	A	.00035"	12.126"	6.496"	8", 9", 10", 11"
3206-16	12-16"	B	.00045"	16.102"	8.819"	13", 15"
3206-20	16-20"	B	.00050"	20.039"	10.827"	17", 19"
3206-24	20-24"	B	.00055"	23.976"	12.638"	21", 23"
3206-28	24-28"	B	.00065"	27.913"	14.606"	25", 27"
3206-32	28-32"	B	.00070"	31.850"	16.772"	29", 31"
3206-36	32-36"	B	.00080"	35.787"	18.740"	33", 35"
3206-40	36-40"	B	.00085"	39.724"	22.677"	37", 39"

- Graduation .0001" (within 12")
.001" (over 12")
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards



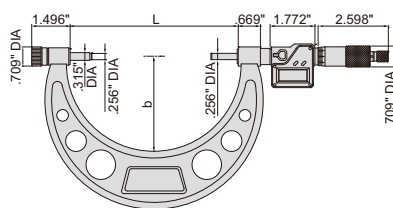
DIGITAL OUTSIDE MICROMETERS WITH INTERCHANGEABLE ANVILS

DATA
OUTPUT

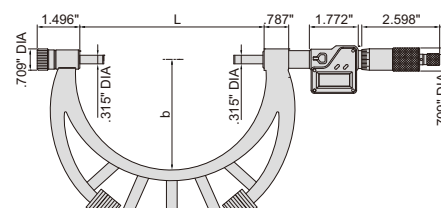
IP65
WATERPROOF



3506-400E



type A



type B

- Resolution .0001"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



Part No.	Range	Type	Accuracy	L	b	Setting standard (included)
3506-300E	6-12"/150-300mm	A	±.00030"	12.008"	6.496"	6", 7", 8", 9", 10"
3506-400E	12-16"/300-400mm	B	±.00035"	15.945"	8.819"	13", 15"
3506-500E	16-20"/400-500mm	B	±.00045"	19.882"	10.827"	17", 19"

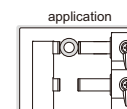
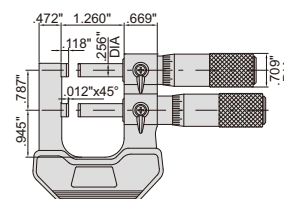


LIMIT MICROMETER

- Used as Go/No-Go gage by setting upper and lower limits
- Carbide measuring face



3235-1



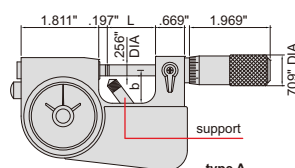
Part No.	Range	Graduation	Accuracy
3235-1	0-1"	.0001"	.00015"

INDICATING MICROMETERS

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED



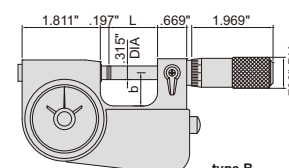
3332-1



type A



3332-1B



type B

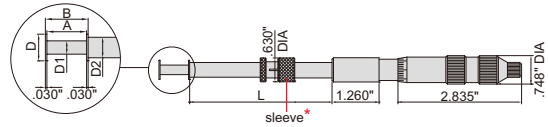
- Micrometer head graduation .0001"
- Micrometer head accuracy .00015"
- Dial indicator: range ±.0015", graduation .00005", accuracy .00005"
- Carbide measuring faces
- Optional accessory: gage blocks grade 0 (4112-A series), for zero setting

Part No.	Micrometer head range	Type	L	b	Remark
3332-1	0-1"	A	1.122"	.748"	with support
3332-2	1-2"	A	2.106"	1.181"	with support
3332-1B	0-1"	B	1.122"	.748"	without support

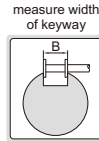
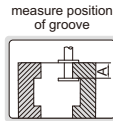
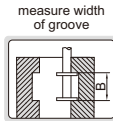
GROOVE MICROMETERS



3287-1B



- Accuracy .00039"
- Graduation .001"
- Measure width of grooves inside bores, measure width of keyway
- Non-rotating spindle
- Two graduations for inside and outside measurement
- Two-directional ratchet stop



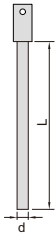
Part No.	Range (outside A)	Range (inside B)	L	D (DIA)	D1 (DIA)	D2 (DIA)
3287-1B	0-1"	.06-1.05"	4.724"	.512"	.256"	.394"
3287-2B	1-2"	1.05-2.05"	4.724"	.512"	.256"	.394"
3287-3B	2-3"	2.05-3.05"	4.724"	.512"	.256"	.394"
3287-4B	3-4"	3.05-4.05"	4.724"	.512"	.256"	.394"
3287-1AB*	0-1"	.06-1.05"	3.543"	.256"	.118"	.197"

*3287-1AB does not have sleeve

CARBIDE 3-WIRES

CUSTOMIZABLE DIAMETER d

INSPECTION CERTIFICATE



7394-76E

- When $d \leq .0118$ " DIA, length $L = .9843$ "; When $d > .0118$ " DIA, length $L = 1.7717$ "
- Made of carbide
- Hardness HRA90
- Diameter accuracy: $\pm .00002$ "
- Roundness .00002"
- Cylindricity .00004"
- Supplied with manufacturer inspection certificate

Part No.	Diameter (d)	Applicable pitch	Part No.	Diameter (d)	Applicable pitch
7394-60E	.0108" DIA	.0125"	7394-77E	.0481" DIA	.0556"
7394-61E	.0120" DIA	.0139"	7394-78E	.0541" DIA	.0625"
7394-62E	.0135" DIA	.0156"	7394-79E	.0619" DIA	.0714"
7394-63E	.0155" DIA	.0179"	7394-80E	.0666" DIA	.0769"
7394-64E	.0173" DIA	.0200"	7394-81E	.0722" DIA	.0833"
7394-65E	.0180" DIA	.0208"	7394-82E	.0753" DIA	.0870"
7394-66E	.0197" DIA	.0227"	7394-83E	.0787" DIA	.0910"
7394-67E	.0217" DIA	.0250"	7394-84E	.0866" DIA	.1000"
7394-68E	.0241" DIA	.0278"	7394-85E	.0962" DIA	.1111"
7394-69E	.0271" DIA	.0313"	7394-86E	.1083" DIA	.1250"
7394-70E	.0289" DIA	.0333"	7394-87E	.1155" DIA	.1333"
7394-71E	.0309" DIA	.0357"	7394-88E	.1237" DIA	.1429"
7394-72E	.0321" DIA	.0370"	7394-89E	.1443" DIA	.1667"
7394-73E	.0333" DIA	.0385"	7394-90E	.1575" DIA	.1818"
7394-74E	.0361" DIA	.0625"	7394-91E	.1732" DIA	.2000"
7394-75E	.0394" DIA	.0455"	7394-92E	.1925" DIA	.2222"
7394-76E	.0433" DIA	.0500"	7394-93E	.2165" DIA	.2500"

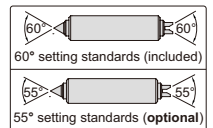
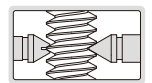
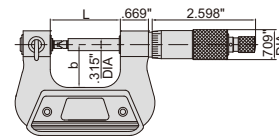
SCREW THREAD MICROMETERS

NON-ROTATING SPINDLE

- Measures pitch diameter of screw threads
- Graduation .001"
- Non-rotating spindle
- Ratchet stop
- Supplied with 60° setting standards (except 0-1")
- Optional accessory: 55° setting standards, measuring tips (part no. 7381)



3281-1 (measuring tips are optional)



Measuring tips are optional

Part No.	Range	L	b	55° setting standard (optional)
3281-1	0-1"	1.654"	1.024"	-
3281-2	1-2"	2.638"	1.496"	3281-SPE1
3281-3	2-3"	3.622"	1.969"	3281-SPE2
3281-4	3-4"	4.630"	2.441"	3281-SPE3
3281-5	4-5"	5.630"	2.756"	3281-SPE4
3281-6	5-6"	6.622"	3.228"	3281-SPE5
3281-7	6-7"	7.559"	3.720"	3281-SPE6

accuracy of micrometers with tips

Pitch	Range					
	0-1"	1-2"	2-3"	3-4"	4-5"	5-8"
64~48TPI	$\pm .00040$ "	-	-	-	-	-
44~32TPI	$\pm .00040$ "	$\pm .00050$ "	-	-	-	-
28~20TPI	$\pm .00045$ "	$\pm .00060$ "	$\pm .00065$ "	$\pm .00065$ "	-	-
18~13TPI	$\pm .00055$ "	$\pm .00065$ "	$\pm .00075$ "	$\pm .00075$ "	$\pm .00080$ "	$\pm .00090$ "
12~7TPI	$\pm .00065$ "	$\pm .00075$ "	$\pm .00085$ "	$\pm .00085$ "	$\pm .00090$ "	$\pm .00100$ "
6~3.5TPI	-	$\pm .00085$ "	$\pm .00090$ "	$\pm .00090$ "	$\pm .00100$ "	$\pm .00110$ "

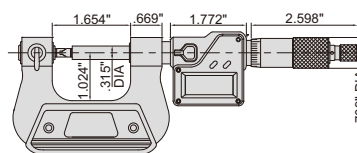
DIGITAL SCREW THREAD MICROMETER

NON-ROTATING SPINDLE

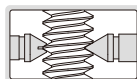
DATA OUTPUT



3581-25E
(measuring tips are optional)



- Measure pitch diameter of screw threads
- Resolution .00005"/0.001mm
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Non-rotating spindle
- Ratchet stop
- Optional accessory: 55° setting standards, measuring tips (part no. 7381), data output cable (part no. 7315-31, 7302-31)



Measuring tips are optional

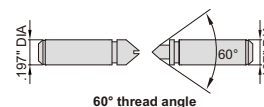
Part No.	Range
3581-25E	0-1"/0-25mm

accuracy of micrometer with tips

Pitch	Range (0-1")
64-48TPI	±.00040"
44-32TPI	±.00040"
28-20TPI	±.00045"
18-13TPI	±.00055"
12-7TPI	±.00065"

MEASURING TIPS FOR SCREW THREAD MICROMETERS

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



Unified and metric thread (60° thread angle)

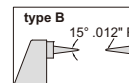
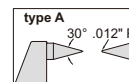
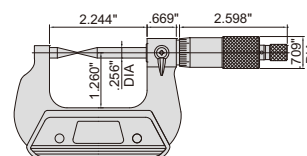
Part No.	Pitch
7381-TS	6 pairs/set: 64-48TPI/0.4-0.5mm, 44-28TPI/0.6-0.9mm, 24-14TPI/1-1.75mm, 13-9TPI/2-3mm, 8-5TPI/3.5-5mm, 4.5-3.5TPI/5.5-7mm

POINT MICROMETERS

- Measure the web thickness of drills, small grooves and keyways
- Ratchet stop
- Carbide tips



3230-1



Part No.	Range	Type	Accuracy	Graduation
3230-1	0-1"	A	.00015"	.0001"
3230-1B	0-1"	B	.00015"	.0001"

DIGITAL POINT MICROMETER

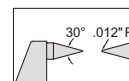
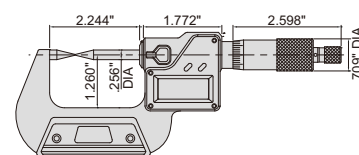
DATA OUTPUT

IP65 WATERPROOF

- Measure the web thickness of drills, small grooves and keyways
- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop, carbide tips
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



3530-25E



Part No.	Range	Accuracy
3530-25E	0-1"/0-25mm	±.00015"

BLADE MICROMETERS

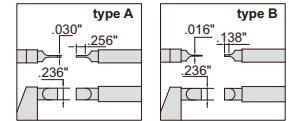
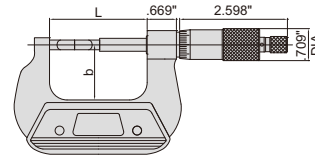
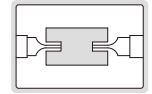
NON-ROTATING SPINDLE

- Measure the groove diameter of shafts and keyways
- Non-rotating spindle
- Ratchet stop
- Supplied with setting standards (except 0-1")

Part No.	Range	Type	Accuracy	Graduation	L	b
3232-1	0-1"	A	.00015"	.0001"	2.244"	1.260"
3232-2	1-2"	A	.00015"	.0001"	3.228"	1.752"
3232-3	2-3"	A	.00020"	.0001"	4.213"	2.244"
3232-4	3-4"	A	.00020"	.0001"	5.220"	2.736"
3232-5	4-5"	A	.00025"	.0001"	6.220"	3.228"
3232-6	5-6"	A	.00025"	.0001"	7.220"	3.720"
3232-7	6-7"	A	.00030"	.0001"	8.220"	4.213"
3232-1B	0-1"	B	.00015"	.0001"	2.244"	1.260"



3232-1



DIGITAL BLADE MICROMETERS

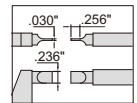
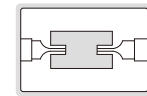
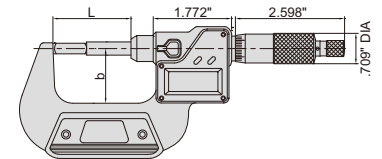
NON-ROTATING SPINDLE

DATA OUTPUT

- Measure the groove diameter of shafts and keyways
- Resolution .00005"/0.001mm
- Non-rotating spindle
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Supplied with setting standards (except 0-1"/0-25mm)
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



3532-25E



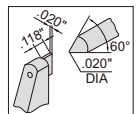
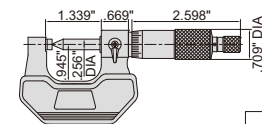
Part No.	Range	Accuracy	L	b
3532-25E	0-1"/0-25mm	±.00015"	2.244"	1.260"
3532-50E	1-2"/25-50mm	±.00015"	3.228"	1.752"

CRIMP HEIGHT MICROMETER

- Measure the height of crimp contact
- Graduation .0001"
- Ratchet stop



3266-1B



Part No.	Range	Accuracy
3266-1B	0-1"	.00015"



DIGITAL CRIMP HEIGHT MICROMETER

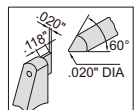
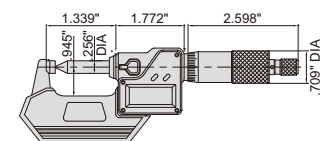
DATA OUTPUT

IP65 WATERPROOF

- Measure the height of crimp contact
- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



3566-25BE



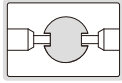
Part No.	Range	Accuracy
3566-25BE	0-1"/0-25mm	±.00015"



SPLINE MICROMETER

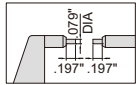
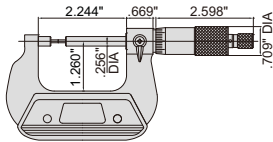


3233-1



- Measure splined shafts, slots and keyways
- Graduation .0001"
- Ratchet stop
- Carbide measuring faces

Part No.	Range	Accuracy
3233-1	0-1"	.00015"



DIGITAL SPLINE MICROMETER

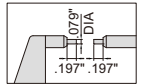
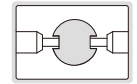
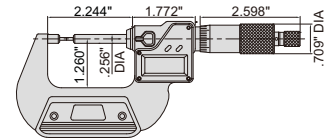
IP65
WATERPROOF

DATA
OUTPUT



3533-25E

- Measure splined shafts, slots and keyways
- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output cable (part no. 7315-31, 7302-31)

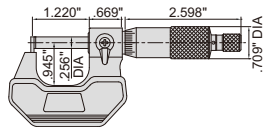


Part No.	Range	Accuracy
3533-25E	0-1"/0-25mm	±.00015"

CYLINDRICAL ANVIL TUBE MICROMETER

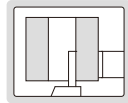
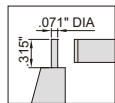


3261-1



- Measure wall thickness of tubes
- Graduation .0001"
- Ratchet stop
- Carbide spindle tip

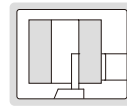
Part No.	Range	Accuracy
3261-1	0-1"	.00025"



DIGITAL CYLINDRICAL ANVIL TUBE MICROMETER

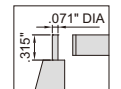
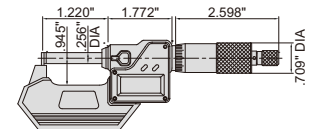
DATA
OUTPUT

IP65
WATERPROOF



3561-25E

- Measure wall thickness of tubes
- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide spindle tip
- Optional accessory: data output cable (part no. 7315-31, 7302-31)

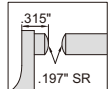
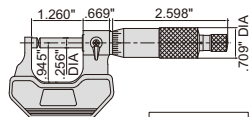


Part No.	Range	Accuracy
3561-25E	0-1"/0-25mm	±.00025"

SPHERICAL ANVIL TUBE MICROMETER

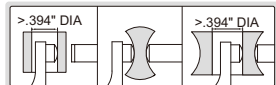


3260-1S



- Measure wall thickness of tubes
- Ratchet stop
- Carbide measuring faces

Part No.	Range	Accuracy	Graduation
3260-1S	0-1"	.00015"	.0001"



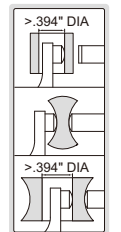
DIGITAL SPHERICAL ANVIL TUBE MICROMETERS

IP65
WATERPROOF

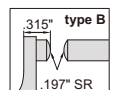
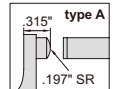
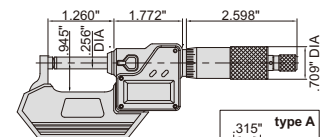
DATA
OUTPUT



3560-25E



- Measure wall thickness of tubes
- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output cable (part no. 7315-31, 7302-31)

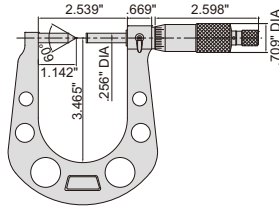


Part No.	Range	Type	Accuracy
3560-25E	0-1"/0-25mm	A	±.00015"
3560-25SE	0-1"/0-25mm	B	±.00015"

DISK BRAKE MICROMETER



3288-1



- Measure thickness of disk brakes
- Graduation .0001"
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards



Part No.	Range	Accuracy
3288-1	.3-1.3"	.00020"

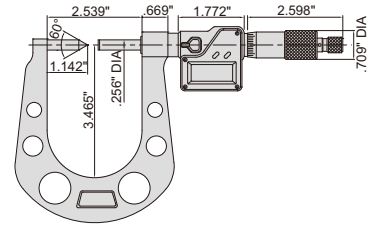
DIGITAL DISK BRAKE MICROMETER

IP65
WATERPROOF

DATA
OUTPUT



3588-33E



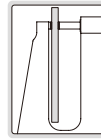
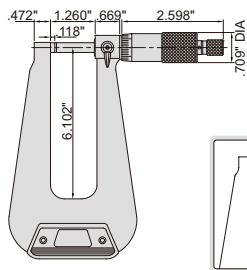
- Measure thickness of disk brakes
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (part no. 7315-31, 7302-31)

Part No.	Range	Resolution	Accuracy
3588-33E	.3-1.3"/7.6-33mm	.00005"/0.001mm	±.00020"

SHEET METAL MICROMETER



3239-13



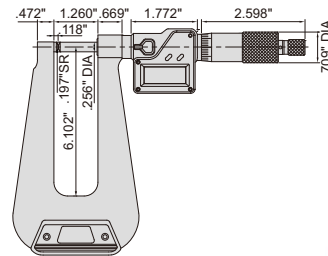
- Deep frame suitable for sheet metal, paper and plastic
- Ratchet stop
- Carbide measuring faces

Part No.	Range	Accuracy	Graduation
3239-13	0-1"	.00030"	.0001"

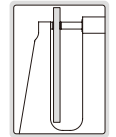
DIGITAL SHEET METAL MICROMETER

IP65
WATERPROOF

DATA
OUTPUT



3539-253SE



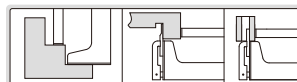
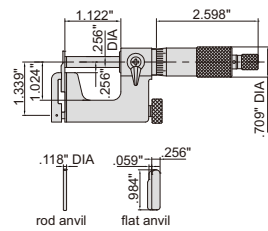
- Deep frame suitable for sheet metal, paper and plastic
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output cable (part no. 7315-31, 7302-31)

Part No.	Range	Accuracy	Resolution
3539-253SE	0-1"/0-25mm	±.00030"	.00005"/0.001mm

INTERCHANGEABLE ANVIL MICROMETER



3262-1



- Measure tube thickness, shoulder edge distance, rivet head height, etc.
- Supplied with flat anvil and rod anvil
- Graduation .0001"
- Ratchet stop
- Carbide spindle tip

Part No.	Range	Accuracy
3262-1	0-1"	.00015"

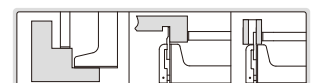
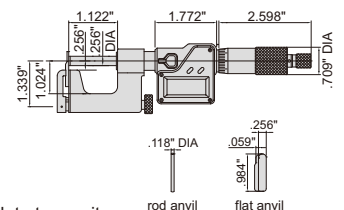
DIGITAL INTERCHANGEABLE ANVIL MICROMETER

IP65
WATERPROOF

DATA
OUTPUT



3562-25E



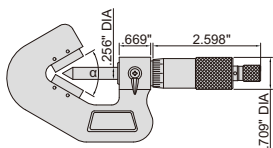
- Measure tube thickness, shoulder edge distance, rivet head height, etc.
- Supplied with flat anvil and rod anvil
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide spindle tip
- Optional accessory: data output cable (part no. 7315-31, 7302-31)

Part No.	Range	Resolution	Accuracy
3562-25E	0-1"/0-25mm	.00005"/0.001mm	±.00015"

V-ANVIL MICROMETER



3290-063



- Measure the diameter of parts or cutting tools with odd grooves, such as taps, reamers and end mills
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards

Part No.	Range	Flutes	α	Accuracy	Graduation
3290-063	.04-.6"	3	60°	.00015"	.0001"

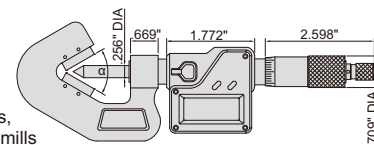
DIGITAL V-ANVIL MICROMETER

IP65
WATERPROOF

DATA
OUTPUT



3590-153E



- Resolution .00005"/0.001mm
- Measure the diameter of parts or cutting tools with odd grooves, such as taps, reamers and end mills
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (part no. 7315-31, 7302-31)

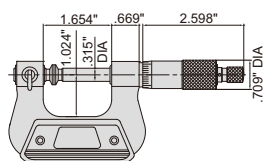
Part No.	Range	Flutes	α	Accuracy
3590-153E	.04-.6"/1-15mm	3	60°	±.00015"

NON-ROTATING SPINDLE UNIVERSAL MICROMETER

NON-ROTATING
SPINDLE



3280-1



Part No.	Range
3280-1	0-1"

- Accuracy .00015"
- Graduation .0001"
- Non-rotating spindle
- Ratchet stop
- Supplied with 7 pairs of anvil/spindle tip
- Optional accessory: 55° anvil/spindle tip

55° anvil/spindle tip (optional)

Part No. 3280-SP1 Knife-edge		
Part No. 3280-SP2 Point		

Anvil/spindle tip (included)

Flat		
Spherical		
Spline		
Disk		
Blade		
Knife-edge		
Point		

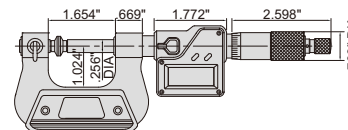
DIGITAL UNIVERSAL MICROMETER

NON-ROTATING
SPINDLE

DATA
OUTPUT



3580-25E



- Accuracy ±.00015"
- Resolution .00005"/0.001mm
- Non-rotating spindle
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Supplied with 7 pairs of anvil/spindle tip
- Optional accessory: 55° anvil/spindle tip part no. 3280-SP1 and 3280-SP2, data output cable (part no. 7315-31, 7302-31)

Part No.	Range
3580-25E	0-1"/0-25mm

55° anvil/spindle tip (optional)

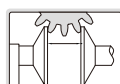
Part No. 3280-SP1 Knife-edge		
Part No. 3280-SP2 Point		

Anvil/spindle tip (included)

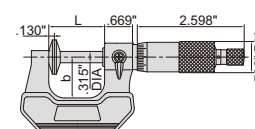
Flat		
Spherical		
Spline		
Disk		
Blade		
Knife-edge		
Point		

DISK MICROMETERS

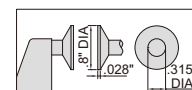
- Measure root tangent length of gear
- Ratchet stop
- Supplied with setting standards



3282-1

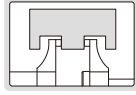


Part No.	Range	Graduation	Accuracy	Parallelism	L	b
3282-1	0-1"	.0001"	.00015"	.00020"	1.339"	.945"
3282-2	1-2"	.0001"	.00015"	.00020"	2.323"	1.260"
3282-3	2-3"	.0001"	.00020"	.00020"	3.346"	1.772"
3282-4	3-4"	.0001"	.00020"	.00020"	4.331"	2.244"

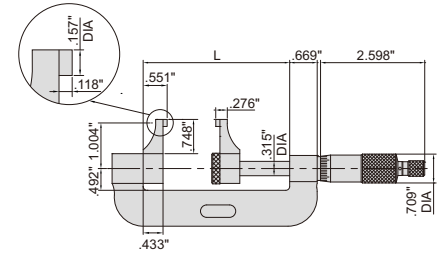


CALIPER TYPE MICROMETER

- Graduation .001"
- Non-rotating spindle
- Ratchet stop
- Carbide measuring faces



3238-1



Part No.	Range	Accuracy	L
3238-1	0-1"	.00040"	2.205"

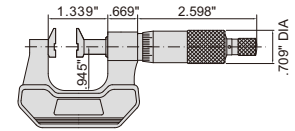
JAW TYPE MICROMETER

NON-ROTATING SPINDLE

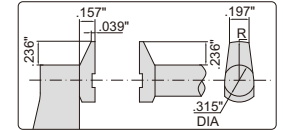
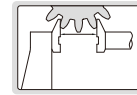
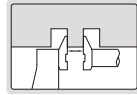
- Graduation .0001"
- Non-rotating spindle
- Ratchet stop



3283-1



Part No.	Range	Accuracy	R
3283-1	0-1"	.00015"	.394"



DIGITAL JAW TYPE MICROMETER

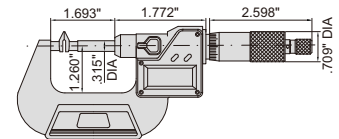
NON-ROTATING SPINDLE

DATA OUTPUT

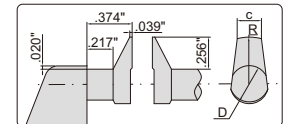
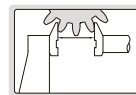
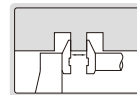
- Resolution .00005"/0.001mm
- Non-rotating spindle
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



3583-25AE



Part No.	Range	Accuracy	C	R	D
3583-25AE	0-1"/0-25mm	±.00015"	.197"	.394"	.315" DIA



DIGITAL NON-ROTATING SPINDLE DISK MICROMETERS

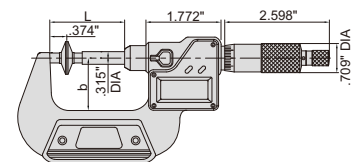
DATA OUTPUT

NON-ROTATING SPINDLE

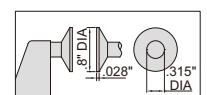
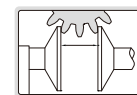
- Parallelism: ±.00020"
- Measure root tangent length of gear
- Resolution .00005"/0.001mm
- Non-rotating spindle
- Button function: on/off, set, inch/mm, data transmit
- Data output, automatic power off
- Ratchet stop
- Supplied with setting standards
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



3594-1

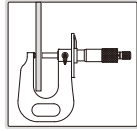


Part No.	Range	Accuracy	L	b
3594-1	0-1"/0-25mm	±.00015"	1.693"	1.260"
3594-2	1-2"/25-50mm	±.00015"	2.677"	1.752"
3594-3	2-3"/50-75mm	±.00020"	3.661"	2.244"
3594-4	3-4"/75-100mm	±.00020"	4.665"	2.756"

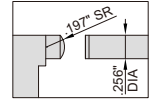
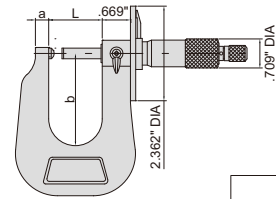


SHEET METAL MICROMETER

- Measure thickness of sheet metal, paper, plastic and rubber parts
- Graduation .001"
- Ratchet stop
- Carbide measuring faces



3263-1



Part No.	Range	Accuracy	L	a	b
3263-1	0-1"	.00015"	1.260"	.315"	1.969"

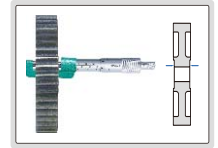
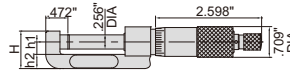
HUB MICROMETERS

- Measure hub thickness and shoulder inside a bore
- Graduation .0001"
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-1")



3292-1

Part No.	Range	Accuracy	h1	h2	H
3292-1	0-1"	.00015"	.236"	.354"	.736"
3292-2	1-2"	.00015"	.256"	.433"	.835"
3292-3	2-3"	.00020"	.256"	.433"	.835"
3292-4	3-4"	.00020"	.256"	.433"	.835"



CAN SEAM MICROMETERS



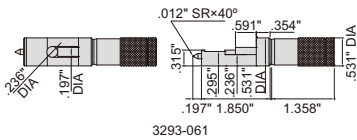
3293-061



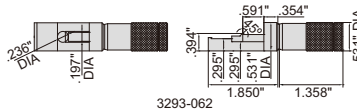
3293-062



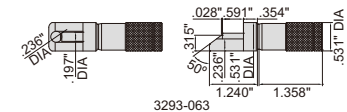
3293-063



3293-061



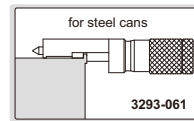
3293-062



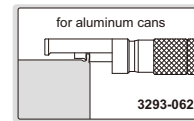
3293-063

Part No.	Range	Accuracy
3293-061	0-.5"	.00015"
3293-062	0-.5"	.00015"
3293-063	0-.5"	.00015"

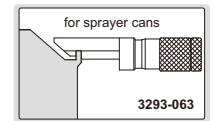
- Measure the width, height and depth of can seams
- Graduation .001"



3293-061



3293-062



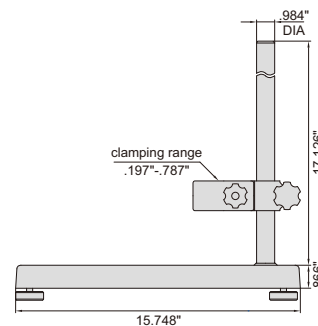
3293-063

MICROMETER STAND

- Suitable for 4-12" outside micrometers (except 3675 series)



6302



Part No.
6302

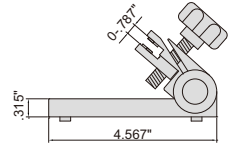
MICROMETER STAND

- Suitable for outside micrometers up to 4"

Part No.
6300



6300



MICROMETER STAND



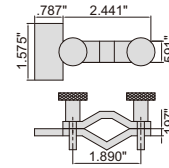
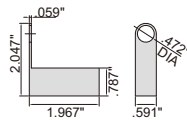
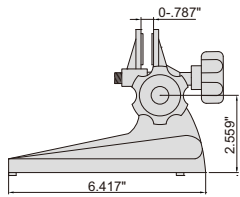
6301



6301-1



6301-2



- Suitable for inside micrometers

- Suitable for three points internal micrometers

- Suitable for outside micrometers up to 4"

Part No.
6301



Part No.	Description	Applicable products
6301-1	clamp for inside micrometers	all sizes of 3220 series

Part No.	Description	Applicable products
6301-2	clamp for three points internal micrometers	up to 4" of 3127 and 3227 series

MICROMETER SETTING STANDARDS



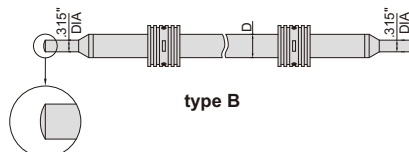
6311-4



6311-12



type A



type B

Part No.	Length	Type	Accuracy	D (DIA)
6311-1	1"	A	±.00006"	.276"
6311-2	2"	A	±.00008"	.276"
6311-3	3"	A	±.00010"	.276"
6311-4	4"	A	±.00012"	.315"
6311-5	5"	A	±.00014"	.315"
6311-6	6"	A	±.00016"	.315"
6311-7	7"	A	±.00018"	.315"
6311-8	8"	A	±.00020"	.315"
6311-9	9"	A	±.00022"	.315"
6311-10	10"	A	±.00024"	.315"
6311-11	11"	A	±.00026"	.315"
6311-12	12"	B	±.00028"	.630"

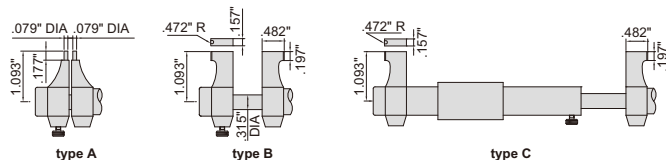
INSIDE MICROMETERS (ECONOMIC TYPE)

ATTENTION: LOW PARALLELISM OF TWO MEASURING FACES



3220-2

micrometer stand with clamp (optional)



- Graduation .001"
- Ratchet stop
- Carbide measuring faces
- Optional accessory: setting ring (part no. 6313), micrometer stand and clamp (part no. 6301 and 6301-1)

Part No.	Range	Type	Setting ring	Accuracy
3220-1	.2-1.2"	A	.2" DIA (included)	.00030"
3220-2	1-2"	B	1" DIA (included)	.00035"
3220-3	2-3"	B	2" DIA (optional)	.00035"
3220-4	3-4"	C	3" DIA (optional)	.00040"

DIGITAL INSIDE MICROMETERS (ECONOMIC TYPE)

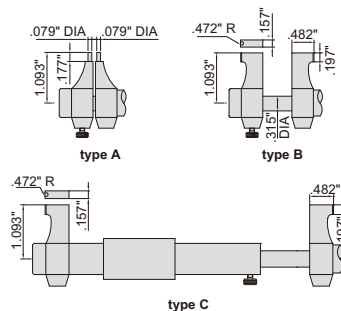
ATTENTION: LOW PARALLELISM OF TWO MEASURING FACES



3520-30E

DATA OUTPUT

- Resolution .00005"/0.001mm
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output cable (part no. 7315-31, 7302-31), setting ring (part no. 6313)



Part No.	Range	Type	Setting ring	Accuracy
3520-30E	.2-1.2"/5-30mm	A	.2" DIA (included)	±.00020"
3520-50E	1-2"/25-50mm	B	1" DIA (included)	±.00025"
3520-75E	2-3"/50-75mm	B	2" DIA (optional)	±.00030"
3520-100E	3-4"/75-100mm	C	3" DIA (optional)	±.00035"

DIGITAL TUBULAR INSIDE MICROMETERS

IP65 WATERPROOF

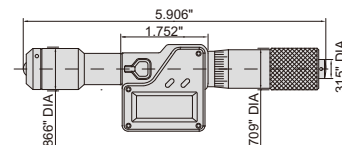
DATA OUTPUT

- Micrometer head: 6-7"
- Graduation .00005"/0.001mm
- Accuracy: $[\pm.00005(3+n+L/2)]$
n=number of rods
L=maximum measuring length (inch)
- Carbide measuring faces
- The diameter of extension rods is .866"
- IP65 dust/waterproof
- Button function: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Supplied with setting standards
- Optional accessory: data output cable (part no. 7315-31, 7302-31)



3521-40

Part No.	Range	Travel of micrometer head	Extension rods
3521-7	6-7"	1"	—
3521-40	6-40"	1"	1", 2" (2 pcs), 4", 8", 16"
3521-60	6-60"	1"	1", 2" (2 pcs), 4" (2 pcs), 8", 16" (2 pcs)



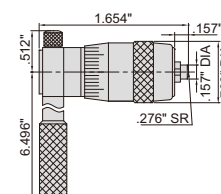
TUBULAR INSIDE MICROMETERS

- Graduation .001"
- Accuracy: $[\pm.0003+\pm.00005(L/2)]$
L=maximum measuring length (inch)
- Optional accessory: setting ring (part no. 6313), gage block accessory (part no. 6881), cylinder gage block (part no. 4001), caliper/height gage checker (part no. 6884)



3221-8

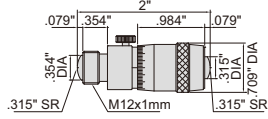
Part No.	Range	Travel of micrometer head	Extension rods
3221-8	2-8"	.5"	6 pcs
3221-12	2-12"	.5"	10 pcs
3221-20	8-20"	1"	3 pcs
3221-40	8-40"	1"	8 pcs



application



TUBULAR INSIDE MICROMETERS



3222-6

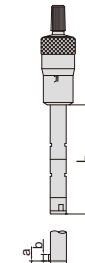
- Micrometer head 2-6"
- Graduation .001"
- Accuracy: $[(.00005(3+n+L/2))]$
n=number of rods
L=maximum measuring length (inch)
- Travel of micrometer head .5"
- Supplied with setting standards
- Carbide measuring faces

Part No.	Range	Extension rods
3222-6	2-6"	.5", 1", 2"
3222-12	2-12"	.5", 1", 2" (2 pcs), 4"
3222-20	2-20"	.5", 1", 2" (2 pcs), 4", 8"
3222-40	2-40"	.5", 1", 2" (2 pcs), 4", 8" (2 pcs), 12"

THREE POINTS INTERNAL MICROMETERS



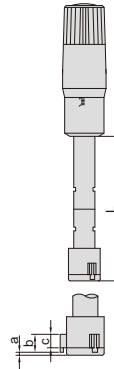
3227-E035



Type B
.275-.5", steel
measuring points
three points



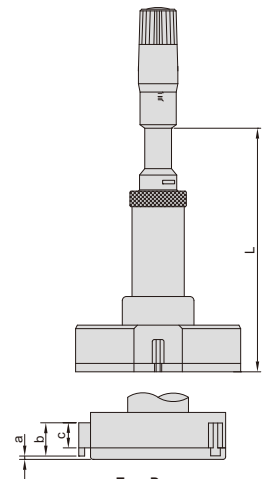
3227-E065



Type C
.5-2", carbide
measuring points
three points



3227-E4



Type D
2-6", carbide
measuring points
three points

- .275-.5": graduation .0001"
- .5-6": graduation .0002"
- Ratchet stop
- Optional accessory:
setting rings (part no. 6313),
micrometer stand and clamp (part no. 6301 and 6301-2)

Manufacturer Inspection Certificate	
Product Name: Three Points Internal Micrometer	Inspection No: 03222-41-0212-01-02221-03
Code No: 3227-E112	Country: Germany 31-68100ND-6-096010112-05
Measuring range: 1-1.2"	Inspector: Janko
Graduation: .0002"	Judgment: Passed
Serial No: 0910142541	
Standard temperature: 68 °F	
Adjusting Scale Factor:	Permissible Error:
1.0000	0
1.0000	0.0010
1.0000	0.0010

micrometer stand with clamp (optional)

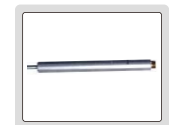


setting ring



.275-4": included
4-6": optional

extension rod



included

Individual

Part No.	Range	Type	Accuracy	Setting ring	Extension rod (included)	L	a	b	c
3227-E035 *	.275-.35"	B (three points)	.00015"	.275" DIA (included)	4"	2.146"	.059"	.098"	—
3227-E0425 *	.35-.425"	B (three points)	.00015"	.35" DIA (included)	4"	2.146"	.059"	.098"	—
3227-E05 *	.425-.5"	B (three points)	.00015"	.5" DIA (included)	4"	2.146"	.059"	.098"	—
3227-E065 *	.5-.65"	C (three points)	.00015"	.65" DIA (included)	6"	3.150"	.020"	.236"	.177"
3227-E08 *	.65-.8"	C (three points)	.00015"	.65" DIA (included)	6"	3.150"	.020"	.236"	.177"
3227-E1 *	.8-1"	C (three points)	.00015"	1" DIA (included)	6"	3.543"	.020"	.315"	.236"
3227-E112 *	1-1.2"	C (three points)	.00015"	1" DIA (included)	6"	3.543"	.020"	.315"	.236"
3227-E16 *	1.2-1.6"	C (three points)	.00015"	1.6" DIA (included)	6"	3.819"	.020"	.551"	.472"
3227-E2 *	1.6-2"	C (three points)	.00020"	1.6" DIA (included)	6"	3.819"	.020"	.551"	.472"
3227-E25 *	2-2.5"	D (three points)	.00020"	2.5" DIA (included)	6"	4.488"	.020"	.689"	.571"
3227-E3 *	2.5-3"	D (three points)	.00020"	2.5" DIA (included)	6"	4.488"	.020"	.689"	.571"
3227-E35 *	3-3.5"	D (three points)	.00020"	3.5" DIA (included)	6"	4.488"	.020"	.689"	.571"
3227-E4 *	3.5-4"	D (three points)	.00020"	3.5" DIA (included)	6"	4.488"	.020"	.689"	.571"
3227-E5 *	4-5"	D (three points)	.00025"	optional	6"	5.512"	.035"	1.142"	.984"
3227-E6 *	5-6"	D (three points)	.00025"	optional	6"	5.512"	.035"	1.142"	.984"

Set

Part No.	Range	Micrometers included	Setting ring (included)	Extension rod (included)
3227-E053 *	.275-.5"	.275-.35", .35-.425", .425-.5"	.275" DIA, .35" DIA, .5" DIA	4"
3227-E082 *	.5-.8"	.5-.65", .65-.8"	.65" DIA	6"
3227-E24 *	.8-2"	.8-1", 1-1.2", 1.2-1.6", 1.6-2"	1" DIA, 1.6" DIA	6"
3227-E44 *	2-4"	2-2.5", 2.5-3", 3-3.5", 3.5-4"	2.5" DIA, 3.5" DIA	6"



3227-E24

* Supplied with manufacturer inspection certificate

DIGITAL THREE POINTS INTERNAL MICROMETERS

DATA
OUTPUT

IP65
WATERPROOF

INSPECTION
CERTIFICATE

setting ring



.275-4": included
4-6": optional

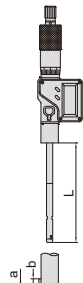
extension rod



included



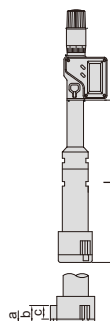
3127-E05



type B
.275-.5", steel
measuring points
three points



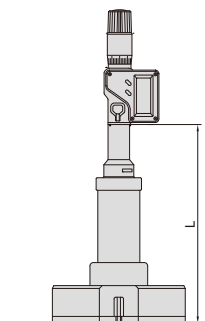
3127-E16



type C
5-2" carbide
measuring points
three points



3127-E5



type D
2-6", carbide
measuring points
three points

- Resolution .00005"/0.001mm
- IP65 dust/waterproof
- Buttons: on/off, set, inch/mm, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Optional accessory: data output cable (part no. 7315-31, 7302-31), setting ring (part no. 6313), micrometer stand and clamp (part no. 6301 and 6301-2)

Manufacturer Inspection Certificate

INSIZE Inspection Certificate	
Product Name	Electronic Three Points Internal Micrometer
Code No.	3127-E16
Measuring range	1.2" / 30-40mm
Resolution	.00005" / 0.001mm
Serial No.	000102004
Standard temperature	68°F
Actual Ring Size (inch)	Permissible Error
1.0000	.00016
1.0025	.00016
1.0050	.00016
1.0075	.00016
1.0100	.00016
1.0125	.00016
1.0150	.00016
1.0175	.00016
1.0200	.00016
1.0225	.00016
1.0250	.00016
1.0275	.00016
1.0300	.00016
1.0325	.00016
1.0350	.00016
1.0375	.00016
1.0400	.00016
1.0425	.00016
1.0450	.00016
1.0475	.00016
1.0500	.00016
1.0525	.00016
1.0550	.00016
1.0575	.00016
1.0600	.00016
1.0625	.00016
1.0650	.00016
1.0675	.00016
1.0700	.00016
1.0725	.00016
1.0750	.00016
1.0775	.00016
1.0800	.00016
1.0825	.00016
1.0850	.00016
1.0875	.00016
1.0900	.00016
1.0925	.00016
1.0950	.00016
1.0975	.00016
1.1000	.00016
1.1025	.00016
1.1050	.00016
1.1075	.00016
1.1100	.00016
1.1125	.00016
1.1150	.00016
1.1175	.00016
1.1200	.00016
1.1225	.00016
1.1250	.00016
1.1275	.00016
1.1300	.00016
1.1325	.00016
1.1350	.00016
1.1375	.00016
1.1400	.00016
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1.1475	.00016
1.1500	.00016
1.1525	.00016
1.1550	.00016
1.1575	.00016
1.1600	.00016
1.1625	.00016
1.1650	.00016
1.1675	.00016
1.1700	.00016
1.1725	.00016
1.1750	.00016
1.1775	.00016
1.1800	.00016
1.1825	.00016
1.1850	.00016
1.1875	.00016
1.1900	.00016
1.1925	.00016
1.1950	.00016
1.1975	.00016
1.2000	.00016

Individual

Part No.	Range	Type	Accuracy	Setting ring	Extension rod	L	a	b	c
3127-E035 *	.275-.35"/7-9mm	B (three points)	.00015"	.275" DIA (included)	4" (included)	2.18"	.059"	.098"	—
3127-E0425 *	.35-.425"/9-11mm	B (three points)	.00015"	.35" DIA (included)	4" (included)	2.18"	.059"	.098"	—
3127-E05 *	.425-.5"/11-13mm	B (three points)	.00015"	.5" DIA (included)	4" (included)	2.18"	.059"	.098"	—
3127-E065 *	.5-.65"/13-17mm	C (three points)	.00015"	.65" DIA (included)	6" (included)	3.2"	.020"	.236"	.177"
3127-E08 *	.65-.8"/17-20mm	C (three points)	.00015"	.65" DIA (included)	6" (included)	3.2"	.020"	.236"	.177"
3127-E1 *	.8-1"/20-25mm	C (three points)	.00015"	1" DIA (included)	6" (included)	3.6"	.020"	.315"	.236"
3127-E112 *	1-1.2"/25-30mm	C (three points)	.00015"	1" DIA (included)	6" (included)	3.6"	.020"	.315"	.236"
3127-E16 *	1.2-1.6"/30-40mm	C (three points)	.00015"	1.6" DIA (included)	6" (included)	3.88"	.020"	.551"	.472"
3127-E2 *	1.6-2"/40-51mm	C (three points)	.00020"	1.6" DIA (included)	6" (included)	3.88"	.020"	.551"	.472"
3127-E25 *	2-2.5"/51-63mm	D (three points)	.00020"	2.5" DIA (included)	6" (included)	4.56"	.020"	.689"	.571"
3127-E3 *	2.5-3"/63-76mm	D (three points)	.00020"	2.5" DIA (included)	6" (included)	4.56"	.020"	.689"	.571"
3127-E35 *	3-3.5"/76-89mm	D (three points)	.00020"	3.5" DIA (included)	6" (included)	4.56"	.020"	.689"	.571"
3127-E4 *	3.5-4"/89-101mm	D (three points)	.00020"	3.5" DIA (included)	6" (included)	4.56"	.020"	.689"	.571"
3127-E5 *	4-5"/101-127mm	D (three points)	.00025"	optional	6" (included)	6"	.035"	1.142"	.984"
3127-E6 *	5-6"/127-152mm	D (three points)	.00025"	optional	6" (included)	6"	.035"	1.142"	.984"

micrometer stand with
clamp (optional)



3127-E082

Set

Part No.	Range	Micrometers included	Setting ring (included)	Extension rod
3127-E053 *	.275-.5"/7-13mm	.275-.35"/7-9mm, .35-.425"/9-11mm, .425-.5"/11-13mm	.275" DIA, .35" DIA, .5" DIA	4" (included)
3127-E082 *	.5-.8"/13-20mm	.5-.65"/13-17mm, .65-.8"/17-20mm	.65" DIA	6" (included)
3127-E24 *	.8-2"/20-51mm	.8-1"/20-25mm, 1-1.2"/25-30mm, 1.2-1.6"/30-40mm, 1.6-2"/40-51mm	1" DIA, 1.6" DIA	6" (included)
3127-E44 *	2-4"/51-101mm	2-2.5"/51-63mm, 2.5-3"/63-76mm, 3-3.5"/76-89mm, 3.5-4"/89-101mm	2.5" DIA, 3.5" DIA	6" (included)

* Supplied with manufacturer inspection certificate

DIGITAL WIDE RANGE THREE POINTS INTERNAL MICROMETERS

INSPECTION
CERTIFICATE

DATA
OUTPUT

IP54
WATERPROOF

- Resolution .00005"/0.001mm (resolution of 3128-12 is .0001"/0.001mm)
- IP54 dust/waterproof
- Buttons: on/off, set, inch/mm, ABS/INC
- Data output
- Automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with extension rods
- Setting rings are included (except part no. 3128-12)
- Optional accessory: data output cable (part no. 7315-30, 7302-30)



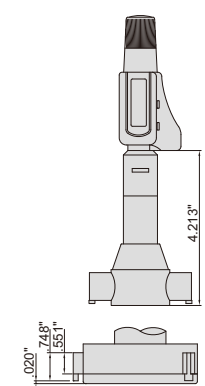
setting ring



extension rod (included)



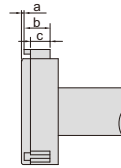
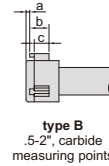
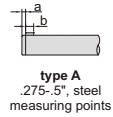
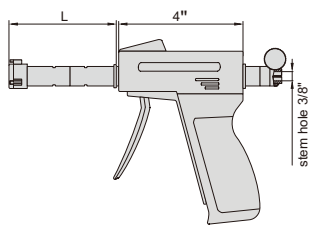
3128-28



Part No.	Range	Accuracy	Setting ring	Extension rod (included)
3128-28 *	2-2.8"/51-71mm	.00020"	2" DIA (included)	6"
3128-4 *	2.8-4"/71-101mm	.00020"	2.8" DIA (included)	6"
3128-6 *	4-6"/101-152mm	.00025"	4" DIA (included)	6"
3128-10 *	6-10"/152-254mm	.00035"	6" DIA (included)	6"
3128-12 *	8-12"/203-305mm	.00035"	8" DIA (optional)	6"

* Supplied with manufacturer inspection certificate

PISTOL GRIP THREE POINTS BORE GAGES

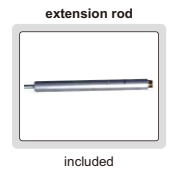


INSIZE		Inspection Certificate	
Product name	Pistol Grip Three Points Bore Gage	Manufacturer	Germany 10230214-10210-01-020210-09
Code No.	2124-E112	Inspector	Paula
Manufacturing range	1-1.2"	Judgement	Passed
Serial No.	0310142544		
Standard temperature	68 °F		
Actual Ring Size 1 INCH	Permissible Error	Measured Diameter	MIN MAX
1.0200	.0016	0	
1.0202		0.0015	
1.0207		0.0019	

- Optional accessory:
digital indicators
(part no. **2108-101EF**,
resolution .00005"/0.001mm),
setting rings (part no. **6313**)

Individual

Part No.	Range	Type	Accuracy (without digital indicator)	Setting ring	Extension rod (included)	L	a	b	c
2124-E035 *	.275-.35"	A	.00015"	.275" DIA (included)	4"	2"	.059"	.098"	—
2124-E0425 *	.35-.425"	A	.00015"	.35" DIA (included)	4"	2"	.059"	.098"	—
2124-E05 *	.425-.5"	A	.00015"	.5" DIA (included)	4"	2"	.059"	.098"	—
2124-E065 *	.5-.65"	B	.00015"	.65" DIA (included)	6"	2.6"	.020"	.236"	.177"
2124-E08 *	.65-.8"	B	.00015"	.65" DIA (included)	6"	2.6"	.020"	.236"	.177"
2124-E1 *	.8-1"	B	.00015"	1" DIA (included)	6"	3.64"	.020"	.315"	.236"
2124-E112 *	1-1.2"	B	.00015"	1" DIA (included)	6"	3.64"	.020"	.315"	.236"
2124-E16 *	1.2-1.6"	B	.00015"	1.6" DIA (included)	6"	3.88"	.020"	.551"	.472"
2124-E2 *	1.6-2"	B	.00020"	1.6" DIA (included)	6"	3.88"	.020"	.551"	.472"
2124-E25 *	2-2.5"	C	.00020"	2.5" DIA (included)	6"	4.48"	.020"	.689"	.571"
2124-E3 *	2.5-3"	C	.00020"	2.5" DIA (included)	6"	4.48"	.020"	.689"	.571"
2124-E35 *	3-3.5"	C	.00020"	3.5" DIA (included)	6"	4.48"	.020"	.689"	.571"
2124-E4 *	3.5-4"	C	.00020"	3.5" DIA (included)	6"	4.48"	.020"	.689"	.571"
2124-E5 *	4-5"	C	.00025"	optional	6"	5.51"	.035"	1.142"	.984"
2124-E6 *	5-6"	C	.00025"	optional	6"	5.51"	.035"	1.142"	.984"



Set

Part No.	Range	Probes included	Setting ring (included)	Extension rod
2124-E053 *	.275-.5"	.275-.35", .35-.425", .425-.5"	.275" DIA, .35" DIA, .5" DIA	4" (included)
2124-E082 *	.5-.8"	.5-.65", .65-.8"	.65" DIA	6" (included)
2124-E24 *	.8-2"	.8-1", 1-1.2", 1.2-1.6", 1.6-2"	1" DIA, 1.6" DIA	6" (included)
2124-E44 *	2-4"	2-2.5", 2.5-3", 3-3.5", 3.5-4"	2.5" DIA, 3.5" DIA	6" (included)

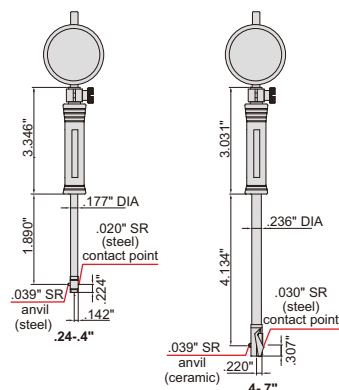


2124-E24

* Supplied with manufacturer inspection certificate

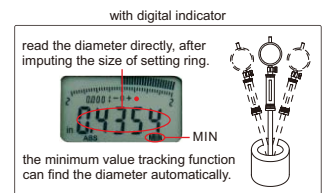
BORE GAGES FOR SMALL HOLES

ATTENTION: NOT SUITABLE FOR
.00005" OR .0001" DIAL INDICATORS



POPULAR MODEL

- Optional accessory:
setting ring (part no. **6313**),
bore gage setter



With dial indicator

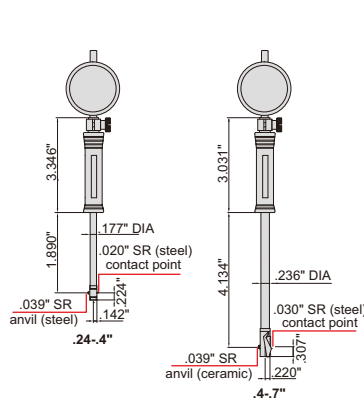
Part No.	Range	Indicator	Accuracy	Repeatability
2323-04	.24-.4"	dial indicator, range .25", graduation .0005"	±.00075"	.00015"
2323-07	.4-.7"	graduation .0005"	±.00075"	.00015"

With digital indicator (data output cable part no. 7315-50M, 7302-40M, optional)

Part No.	Range	Indicator	Accuracy	Repeatability
2123-04A	.24-.4"	digital indicator, range .5"/12.7mm, resolution .0001"/0.002mm	±.00075"	.0001"
2123-07A	.4-.7"	resolution .0001"/0.002mm (can switch to .0005"/0.01mm)	±.00075"	.0001"

PRECISION BORE GAGES FOR SMALL HOLES

- Optional accessory: setting ring (part no. 6313), bore gage setter



2721-04



ceramic anvil

2722-07

With dial indicator

Part No.	Range	Indicator	Accuracy	Repeatability
2721-04	.24-.4"	dial indicator, range .05", graduation .0001"	±.0003"	.00006"
2721-07	.4-.7"	dial indicator, range .05", graduation .0001"	±.0003"	.00006"

With digital indicator (data output cable part no. 7315-50M, 7302-40M, optional)

Part No.	Range	Indicator	Accuracy	Repeatability
2722-04	.24-.4"	digital indicator, range .5"/12.7mm, resolution .00005"/0.001mm	±.0003"	.0001"
2722-07	.4-.7"	digital indicator, range .5"/12.7mm, resolution .00005"/0.001mm	±.0003"	.0001"

with digital indicator

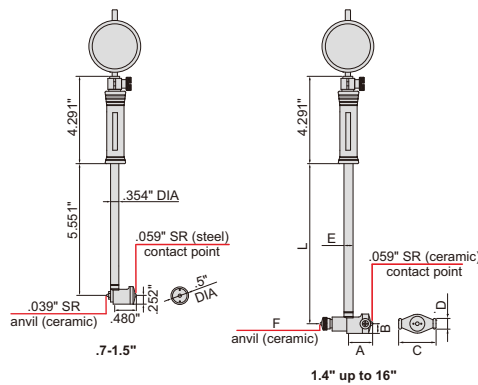
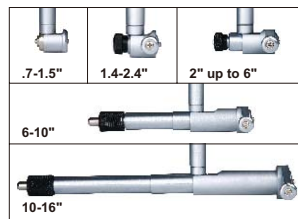
read the diameter directly, after inputting the size of setting ring.



the minimum value tracking function can find the diameter automatically.



PRECISION BORE GAGES



2826-6



2720-15

- Optional accessory: setting ring (part no. 6313), bore gage setter

With dial indicator

Part No.	Range	Indicator	Accuracy	Repeatability
2826-15	.7-1.5"	dial indicator, range .05", graduation .0001"	±.0003"	.00006"
2826-24	1.4-2.4"		±.0003"	.00006"
2826-6	2-6"		±.0003"	.00006"
2826-10	6-10"		±.0003"	.00006"
2826-16	10-16"		±.0003"	.00006"

With digital indicator

(data output cable part no. 7315-50M, 7302-40M, optional)

Part No.	Range	Indicator	Accuracy	Repeatability
2720-15	.7-1.5"	digital indicator, range .5"/12.7mm, resolution .00005"/0.001mm	±.0003"	.0001"
2720-24	1.4-2.4"		±.0003"	.0001"
2720-6	2-6"		±.0003"	.0001"
2720-10	6-10"		±.0003"	.0001"
2720-16	10-16"		±.0003"	.0001"

with digital indicator

read the diameter directly, after inputting the size of setting ring.



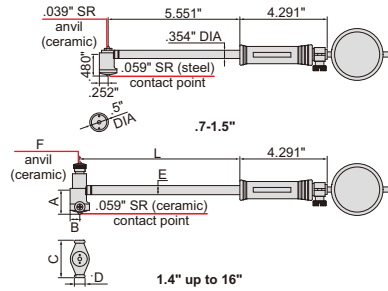
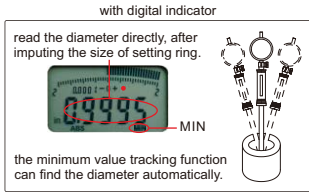
the minimum value tracking function can find the diameter automatically.



Range	A	B	C	D	E	F	L
1.4-2.4"	.866"	.354"	1.063"	.512" DIA	.504" DIA	.079" SR	5.551"
2-6"	1.024"	.354"	1.378"	.512" DIA	.504" DIA	.079" SR	5.551"
6-10"	2.224"	.512"	2.933"	.591" DIA	.571" DIA	.079" SR	9.488"
10-16"	3.406"	.591"	3.996"	.591" DIA	.571" DIA	.098" SR	9.488"

BORE GAGES

ATTENTION: NOT SUITABLE FOR .00005" OR .0001" DIAL INDICATORS



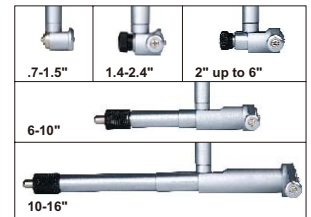
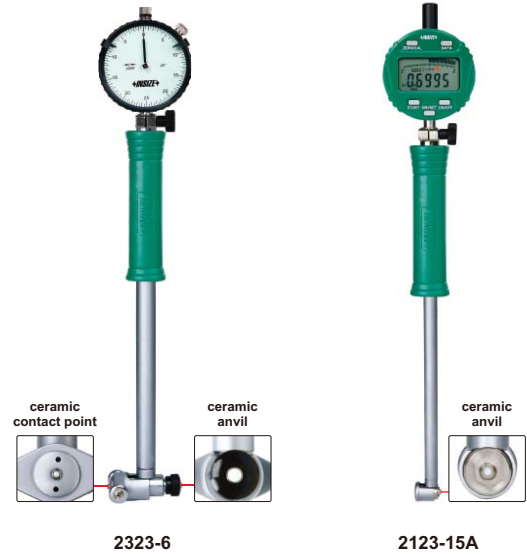
- Optional accessory: setting ring (part no. 6313), long handle (part no. 7351), bore gage setter

With dial indicator

Part No.	Range	Indicator	Accuracy	Repeatability
2323-15	.7-1.5"	dial indicator, range .25", graduation .0005"	±.00075"	.00015"
2323-24	1.4-2.4"		±.0009"	.00015"
2323-6	2-6"		±.0009"	.00015"
2323-10	6-10"		±.0009"	.00015"
2323-16	10-16"		±.0009"	.00015"

With digital indicator (data output cable part no. 7315-50M, 7302-40M, optional)

Part No.	Range	Indicator	Accuracy	Repeatability
2123-15A	.7-1.5"	digital indicator, range .5"/12.7mm, resolution .0001"/0.002mm (can switch to .0005"/0.01mm)	±.00075"	.0001"
2123-24A	1.4-2.4"		±.0009"	.0001"
2123-6A	2-6"		±.0009"	.0001"
2123-10A	6-10"		±.0009"	.0001"
2123-16A	10-16"		±.0009"	.0001"

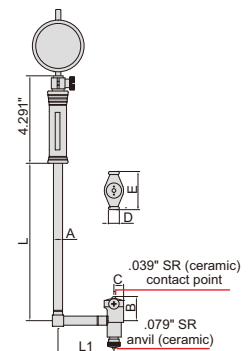
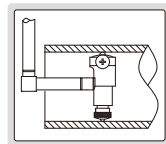


Range	A	B	C	D	E	F	L
1.4-2.4"	.866"	.354"	1.063"	.512" DIA	.504" DIA	.079" SR	5.551"
2-6"	1.024"	.354"	1.378"	.512" DIA	.504" DIA	.079" SR	5.551"
6-10"	2.224"	.512"	2.933"	.591" DIA	.504" DIA	.079" SR	9.488"
10-16"	3.406"	.591"	3.996"	.591" DIA	.571" DIA	.098" SR	9.488"

BORE GAGES

ATTENTION: NOT SUITABLE FOR .00005" OR .0001" DIAL INDICATORS

- Optional accessory: setting ring (part no. 6313), long handle (part no. 7351), bore gage setter

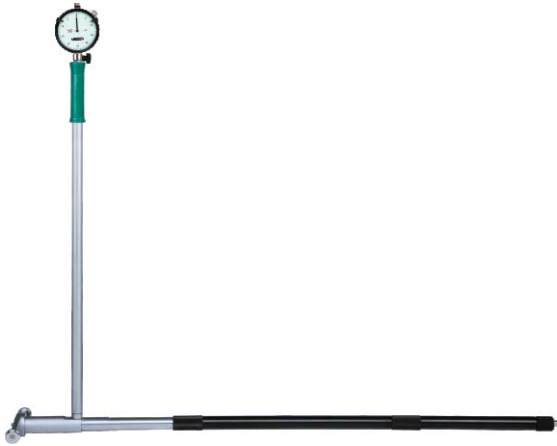


Range	A (DIA)	B	C	D (DIA)	E	L	L1
2-6"	.504"	1.122"	.362"	.512"	1.378"	5.551"	3.000"
6-10"	.571"	2.441"	.500"	.591"	2.933"	15.394"	3.937"
10-16"	.571"	3.602"	.591"	.591"	3.996"	15.394"	3.937"

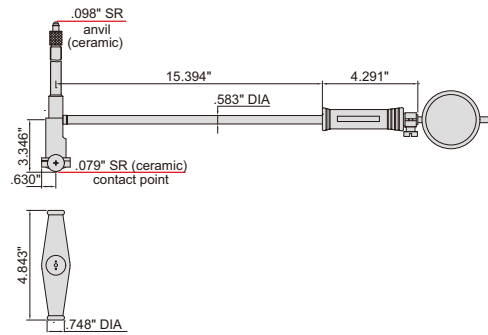
Part No.	Range	Indicator	Accuracy	Repeatability
2827-6	2-6"	dial indicator range .25", graduation .0005"	±.0009"	.00015"
2827-10	6-10"		±.0009"	.00015"
2827-16	10-16"		±.0009"	.00015"

BORE GAGE

ATTENTION: NOT SUITABLE FOR .00005" OR .0001" DIAL INDICATORS



2828-32



Part No.	Range	Indicator	Accuracy	Repeatability
2828-32	16-32"	dial indicator, range .25", graduation .0005"	±.001"	.00015"

BORE GAGE SETS

ATTENTION: NOT SUITABLE FOR .00005" OR .0001" DIAL INDICATORS



2824-S2E

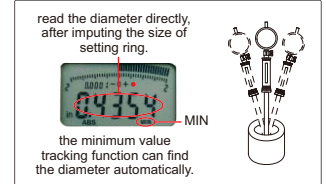
2724-S3E

packaging (part no. 2824-S3E)



- Optional accessory: setting ring (part no. 6313), long handle (part no. 7351), bore gage setter

with digital indicator



With dial indicator

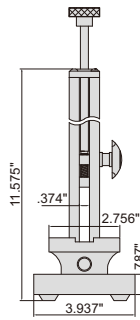
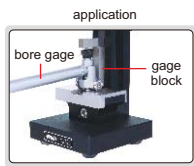
Part No.	Range	Indicator	Bore gages included	Accuracy	Repeatability
2824-S2E	1.4-6"	dial indicator range .25", graduation .0005"	① 1.4-2" (dial indicator and handle are not included) ② 2-6"	1.4-2" ±.0009" 2-6" ±.0009"	.00015"
2824-S3E	.7-6"	dial indicator range .25", graduation .0005"	① .7-1.5" ② 1.4-2.4" (dial indicator is not included) ③ 2-6" (dial indicator is not included)	.7-1.5" ±.00075" 1.4-2.4" ±.0009" 2-6" ±.0009"	.00015"

With digital indicator (data output cable part no. 7315-50M, 7302-40M, optional)

Part No.	Range	Indicator	Bore gages included	Accuracy	Repeatability
2724-S2E	1.4-6"	digital indicator, range .5"/12.7mm, resolution .0001"/0.002mm (can switch to .0005"/0.01mm)	① 1.4-2" (dial indicator and handle are not included) ② 2-6"	1.4-2" ±.0009" 2-6" ±.0009"	.0001"
2724-S3E	.7-6"	digital indicator, range .5"/12.7mm, resolution .0001"/0.002mm (can switch to .0005"/0.01mm)	① .7-1.5" ② 1.4-2.4" (dial indicator is not included) ③ 2-6" (dial indicator is not included)	.7-1.5" ±.00075" 1.4-2.4" ±.0009" 2-6" ±.0009"	.0001"



BORE GAGE SETTERS



Gage block set for 7353-6

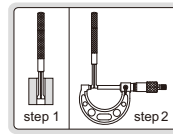
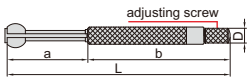
Blocks per set	Size (inch)	Step	Quantity	Remark
36	.05		1 pc	grade AS-2 (ASME B89.1.9)
	.1001-.1009	.0001"	9 pcs	
	.101-.109	.001"	9 pcs	
	.11-.19	.01"	9 pcs	
	.1-.5	.1"	5 pcs	
	1		1 pc	
2		1 pc		
4		1 pc		

- Repeatability .00005"
- Vertical and horizontal use
- To be used with gage blocks

Part No.	Range	Remark
7353-6	0-6"	with gage block set
7353-160W	0-6"	without gage block set

7353-6

SMALL HOLE GAGE SET



Range	L	a	b	D
.125-.2"	2.992"	.945"	2.047"	.197" DIA
.2-.3"	3.110"	1.063"	2.047"	.197" DIA
.3-.4"	3.465"	1.181"	2.283"	.236" DIA
.4-.5"	3.583"	1.339"	2.283"	.236" DIA

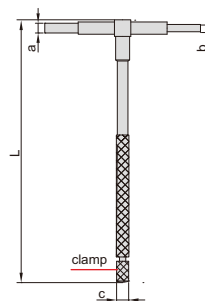
- 4 gages per set
- For small holes, slots and grooves, etc.
- Satin chrome finish

4208-1

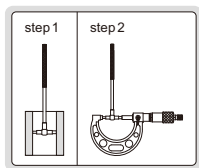
Part No.	Total range	Gages included
4208-1	.125-.5"	.125-.2", .2-.3", .3-.4", .4-.5"

TELESCOPING GAGE SET

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



Range	L	a (DIA)	b (DIA)	c (DIA)
5/16-1/2"	4.528"	.154"	.114"	.244"
1/2-3/4"	4.528"	.209"	.150"	.244"
3/4-1-1/4"	4.528"	.209"	.150"	.244"
1-1/4-2-1/8"	5.394"	.299"	.240"	.283"
2-1/8-3-1/2"	5.394"	.299"	.240"	.283"
3-1/2-6"	5.394"	.299"	.240"	.283"

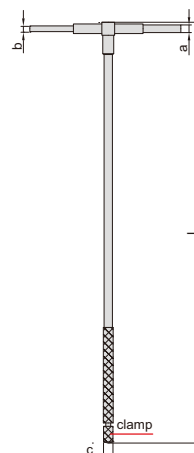
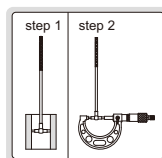


4206-1

Part No.	Total range	Gages included
4206-1	5/16-6"	5/16-1/2", 1/2-3/4", 3/4-1-1/4", 1-1/4-2-1/8", 2-1/8-3-1/2", 3-1/2-6"

LONG HANDLE TELESCOPING GAGES

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



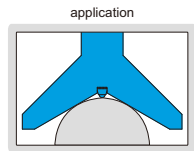
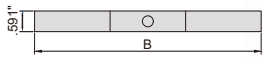
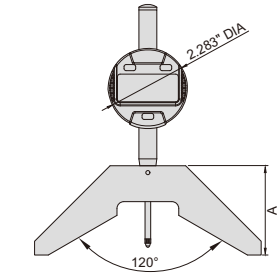
4209-6

Part No.	Range	L	a	b	c
4209-1	5/16-1/2"	11.811"	.154" DIA	.114" DIA	.244" DIA
4209-2	1/2-3/4"	11.811"	.209" DIA	.150" DIA	.244" DIA
4209-3	3/4-1-1/4"	11.811"	.209" DIA	.150" DIA	.244" DIA
4209-4	1-1/4-2-1/8"	11.811"	.299" DIA	.240" DIA	.283" DIA
4209-5	2-1/8-3-1/2"	11.811"	.299" DIA	.240" DIA	.283" DIA
4209-6	3-1/2-6"	11.811"	.299" DIA	.240" DIA	.283" DIA



DIGITAL RADIUS GAGES

DATA OUTPUT



2188-55



2188-143



2188-233



2188-323

- Measure radius of external arc, arc angle of measured surface should be larger than 60°
- Display radius value, no need to calculate
- Button function: on/off, zero, data preset, inch/mm
- Keep preset data in memory after restart
- CR2032 battery
- Automatic power off (time is adjustable), data output
- Stainless steel base
- Optional accessory: setting standards, data output cable (part no. 7315-50M, 7302-40M)

Part No.	Range (radius)	Resolution	Accuracy	A	B
2188-55	.16-2.09"/4-53mm	.0005"/0.01mm	±.001"	1.575"	2.559"
2188-143	1.89-5.63"/48-143mm	.0005"/0.01mm	±.0015"	2.559"	6.496"
2188-233	5.43-9.17"/138-233mm	.0005"/0.01mm	±.0015"	3.346"	10.039"
2188-323	8.98-12.72"/228-323mm	.0005"/0.01mm	±.002"	3.740"	13.582"

Setting standards

Part No.	Setting standards	Remark
4110-10D00	setting standard for 2188-55	included
2188-P143	setting standard for 2188-143	optional
2188-P233	setting standard for 2188-233	optional
2188-P323	setting standard for 2188-323	optional



2188-P143

setting standard application



DIGITAL RADIUS GAGE (LOW ACCURACY)

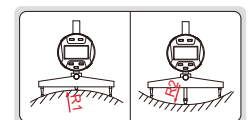
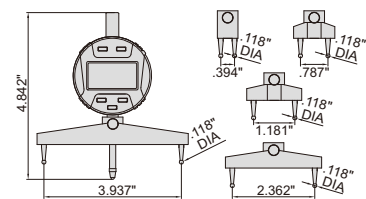
DATA OUTPUT



- Resolution .001"/0.01mm
- Buttons: on/off, hold, inch/mm, s (select jaws), zero
- Measure radius of internal or external arcs
- Display can be rotated by 320°
- Supplied with 5 jaws for different sizes of arc
- Battery CR2032
- Automatic power off (time is adjustable)
- Optional accessory: data output cable (part no. 7315-2183, 7302-2183)



2183



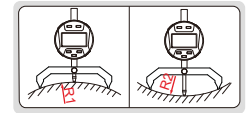
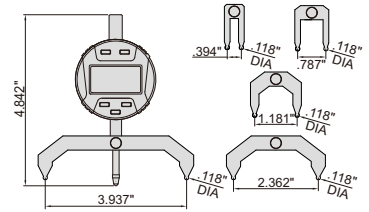
Part No.	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (inch)
2183	.2-35.83"/5-910mm	.3-35.83"/7-910mm	±0.01R*

*R is the radius to be measured. For example, radius is 4", the accuracy is ±.01x4=±.04"

DIGITAL RADIUS GAGE

DATA OUTPUT

- Resolution .001"/0.01mm
- Buttons: on/off, hold, inch/mm, s (select jaws), zero
- Measure radius of internal or external arcs
- Cylindrical measuring jaws, self-positioning
- Display can be rotated by 320°
- Supplied with 5 jaws for different sizes of arc
- Battery CR2032, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-2183, 7302-2183)

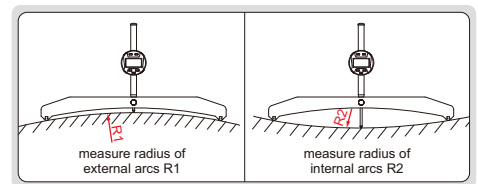
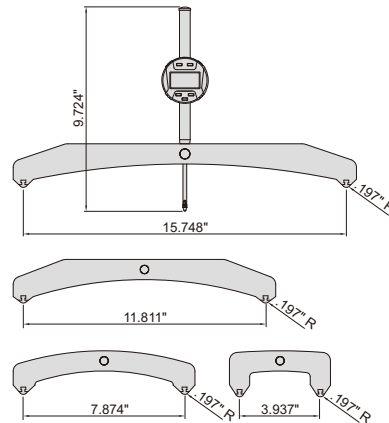


Part No.	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (inch)
2511	.2-35.83"/5-910mm	.3-35.83"/7-910mm	±.005R*

*R is the radius to be measured. For example, radius is 4", the accuracy is ±.005x4=±.02"

LARGE RANGE DIGITAL RADIUS GAGE

DATA OUTPUT



- Measure radius of internal or external arcs
- Resolution .001"/0.01mm
- Buttons: on/off, hold, inch/mm, s (select jaws), zero
- Display can be rotated by 320°
- Supplied with 4 jaws for different sizes of arc
- Data output
- Battery CR2032, automatic power off (time is adjustable)
- Optional accessory: data output cable (part no. 7315-2183, 7302-2183)

Part No.	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (inch)
2197	4-590"/100-15000mm	4-590"/100-15000mm	±.005R*

*R is the radius to be measured. For example, radius is 4", the accuracy is ±.005x4=±.02"

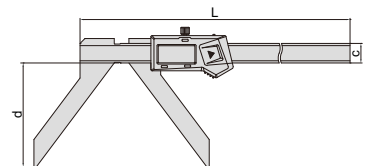
DIGITAL ARC RADIUS CALIPERS

DATA OUTPUT

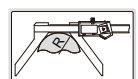
- Non waterproof
- Measure the radius of arc less than half round
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1189-200B



Part No.	Range (R)	Accuracy	L	c	d
1189-150B	.2-6"/5-150mm	±.0020"	10.354"	.630"	2.559"
1189-200B	.2-8"/5-200mm	±.0030"	12.323"	.630"	3.346"



DIGITAL RADIUS CALIPERS

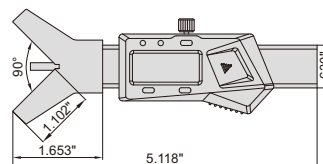
DATA OUTPUT

ATTENTION: THE ACTUAL RADIUS IS 2.414 TIMES OF THE READING

- Non waterproof
- Measure radius of external arc, arc angle of measured surface should be larger than 90°
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with pin gage for zero setting



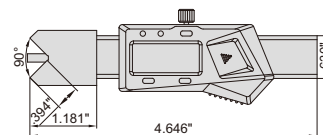
1501-25



1501-25



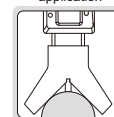
1501-10



1501-10



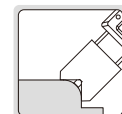
application



pin gage (included)



1501-10 can measure small workpieces or workpieces with steps



Part No.	Range (radius)	Accuracy
1501-25	.079-1"/2-25mm	±.0020"
1501-10	.079-.394"/2-10mm	±.0020"

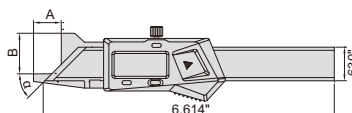
DIGITAL CHAMFER GAGES

DATA OUTPUT

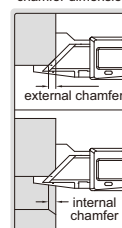
- Non waterproof
- Measure 30°/45°/60° chamfer dimension
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1180-6

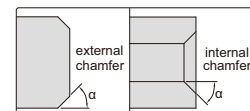
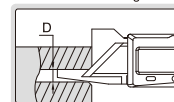


measure chamfer dimension



Part No.	Range	Accuracy	Chamfer (α)	A	B	D (DIA)
1180-6	0-.39"/0-10mm	±.0025"	45°	.591"	.866"	.276"
1180-63	0-.39"/0-10mm	±.0025"	30°	.591"	.866"	.315"
1180-66	0-.39"/0-10mm	±.0025"	60°	.551"	.827"	.276"

for internal chamfer measurement, diameter should be larger than D

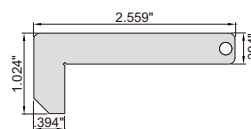


CHAMFER GAGE

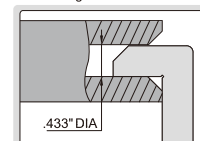
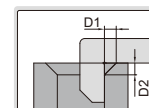
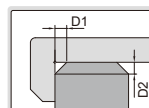
- To measure internal and external chamfers
- Made of stainless steel



4844-1E



for internal chamfer measurement, diameter should be larger than .433" DIA

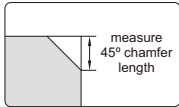


Part No.	Graduation	Accuracy
4844-1E	1/32"	±.01"

DIGITAL CHAMFER GAGES

DATA
OUTPUT

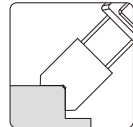
ATTENTION: CHAMFER OF
HOLES CANNOT BE MEASURED



- Non waterproof
- Measure 45° chamfer length
- Resolution .0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with pin gage for zero setting

Part No.	Range	Accuracy
1537-20	0-.787"/0-20mm	±.0020"
1537-8	0-.315"/0-8mm	±.0020"

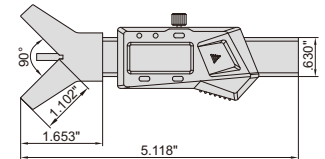
1537-8 can measure small workpieces or workpieces with steps



pin gage (included)



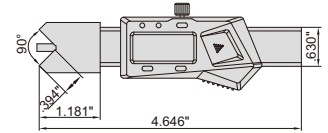
1537-20



1537-20



1537-8



1537-8

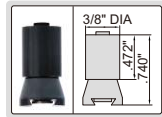
DIAL TEST INDICATOR

INSIZE PLUS
MADE IN EUROPE

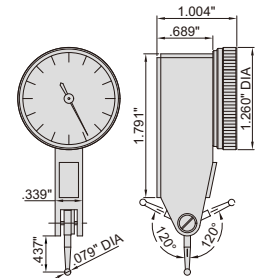
INSPECTION
CERTIFICATE

- Graduation .0005"
- Ceramic bearing
- Anti magnetic carbide contact point
- Two measuring directions
- Supplied with one clamp: 3/8" DIA
- Optional accessory: styli

clamp (included)



2835-03



Part No.	Range	Graduation	Accuracy	Range/rev	Dial reading
2835-03*	.03"	.0005"	±.0005"	.015"	0-15-0

*Supplied with manufacturer inspection certificate

DIAL TEST INDICATORS

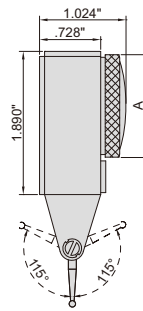
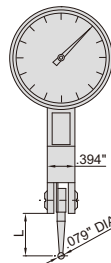
INSPECTION
CERTIFICATE

JEWELLED
BEARING

POPULAR
MODEL



2380-31



- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA
- Optional accessory: styli

clamp (included)



Dial reading: 0-15-0

Part No.	Range	Graduation	Accuracy	A (DIA)	L
2380-31*	.03"	.001"	±.001"	1.181"	.50"
2380-35*	.03"	.0005"	±.0005"	1.181"	.50"
2381-31*	.03"	.001"	±.001"	1.457"	.50"
2381-35*	.03"	.0005"	±.0005"	1.457"	.50"

Dial reading: 0-40-0

Part No.	Range	Graduation	Accuracy	A (DIA)	L
2380-301*	.008"	.0001"	±.0001"	1.181"	.563"
2381-301*	.008"	.0001"	±.0001"	1.457"	.563"

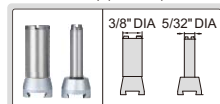
*Supplied with manufacturer inspection certificate

LONG STYLI DIAL TEST INDICATOR

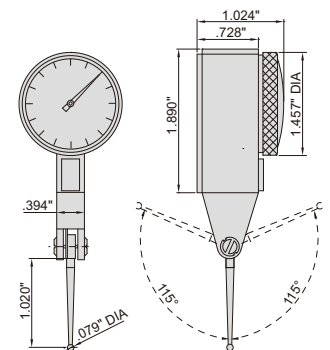
INSPECTION
CERTIFICATE

JEWELLED
BEARING

clamp (included)



2383-35A



- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA
- Optional accessory: styli

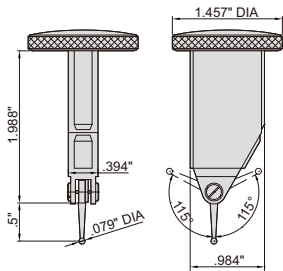
Part No.	Range	Graduation	Accuracy	Dial reading
2383-35A*	.03"	.0005"	±.0005"	0-15-0

*Supplied with manufacturer inspection certificate

VERTICAL TYPE DIAL TEST INDICATOR

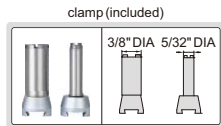
JEWELLED BEARING

INSPECTION CERTIFICATE



2398-03

- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA
- Optional accessory: styli



Part No.	Range	Graduation	Accuracy	Dial reading
2398-03*	.03"	.0005"	±.0005"	0-15-0

*Supplied with manufacturer inspection certificate

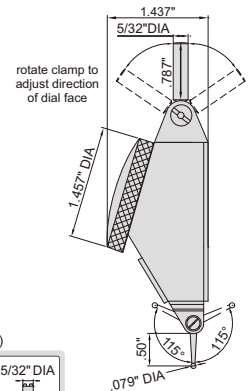
LARGE RANGE DIAL TEST INDICATOR

JEWELLED BEARING

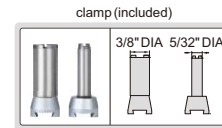
INSPECTION CERTIFICATE



2386-006A



- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA
- Optional accessory: styli



Part No.	Range	Graduation	Accuracy	Dial reading
2386-006A*	.06"	.0005"	±.0008"	0-15-0

*Supplied with manufacturer inspection certificate

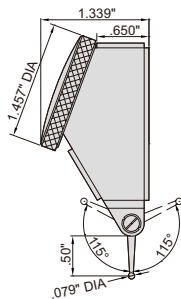
TILTED FACE TYPE DIAL TEST INDICATOR

JEWELLED BEARING

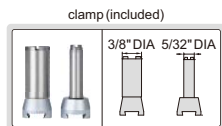
INSPECTION CERTIFICATE



2399-03



- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA
- Optional accessory: styli



Part No.	Range	Graduation	Accuracy	Dial reading
2399-03*	.03"	.0005"	±.0005"	0-15-0

*Supplied with manufacturer inspection certificate

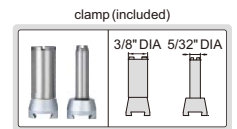
LARGE RANGE BACK PLUNGER TYPE DIAL TEST INDICATOR

INSPECTION CERTIFICATE

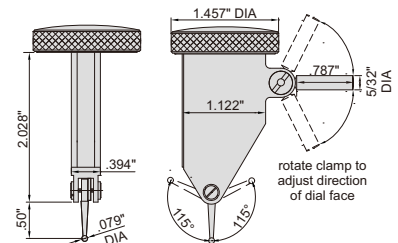
JEWELLED BEARING



2480-06



- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA
- Optional accessory: styli



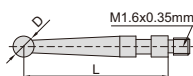
Part No.	Range	Graduation	Accuracy	Dial reading
2480-06*	.06"	.0005"	±.0008"	0-15-0

*Supplied with manufacturer inspection certificate

STYLI FOR DIAL TEST INDICATORS



6284-10



Part No.	For dial test indicator	Material of contact point	L	D (DIA)
6284-9	2380-31, 2380-35 2381-31, 2381-35 2398-03, 2399-03	steel	.50"	.039"
6284-10		carbide	.50"	.079"
6284-11		ruby	.50"	.079"
6284-12	2380-301 2381-301	carbide	.50"	.118"
6284-13		steel	.563"	.039"
6284-14		carbide	.563"	.079"
6284-15		ruby	.563"	.079"
6284-16		carbide	.563"	.118"

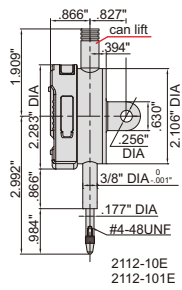
DIGITAL INDICATORS (STANDARD TYPE)

INSPECTION CERTIFICATE

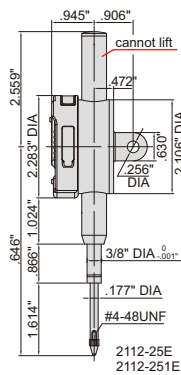
DATA OUTPUT

POPULAR MODEL

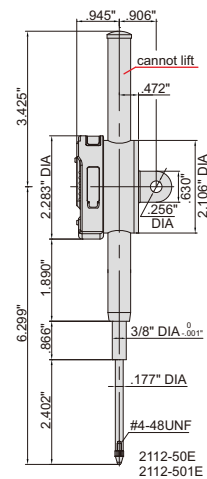
spindle lift knob is included



2112-10E



2112-251E



2112-501E

Resolution .00005"/0.001mm

Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2112-10E*	.5"/12.7mm	±.00015"	.00005"	.337lbf	lug back
2112-251E*	1"/25.4mm	±.00015"	.00005"	.495lbf	lug back
2112-501E*	2"/50.8mm	±.00015"	.00005"	.562lbf	lug back

Resolution .0005"/0.01mm

Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2112-10E*	.5"/12.7mm	±.0015"	.0005"	.337lbf	lug back
2112-25E*	1"/25.4mm	±.0015"	.0005"	.495lbf	lug back
2112-50E*	2"/50.8mm	±.0015"	.0005"	.562lbf	lug back

*Supplied with manufacturer inspection certificate

- Meet ASME B89.1.10M-2001
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Switchable high/low frequency measurement mode, high frequency mode is suitable for high speed moving of spindle and has large power consumption, low power consumption in low frequency mode
- Keep preset data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M), backs, contact points

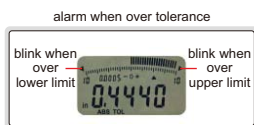
DIGITAL INDICATORS (ADVANCED TYPE)

INSPECTION CERTIFICATE

DATA OUTPUT



display can be rotated by 320°



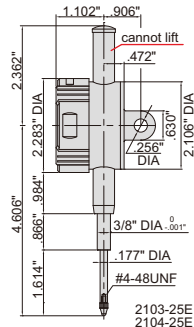
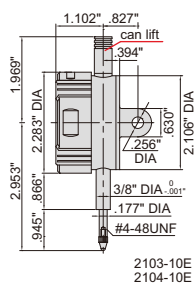
alarm when over tolerance

blink when over lower limit blink when over upper limit

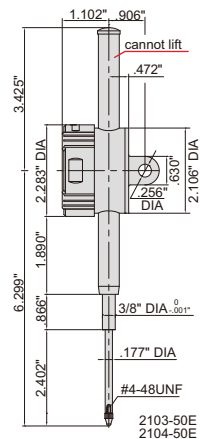
2103-10E

analog pointer

analog pointer

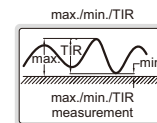


2104-25E



2103-50E

spindle lift knob is included



Resolution .00005"/0.001mm

Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2103-10E*	.5"/12.7mm	±.00015"	.00005"	.337lbf	lug back
2103-25E*	1"/25.4mm	±.00015"	.00005"	.495lbf	lug back
2103-50E*	2"/50.8mm	±.00015"	.00005"	.562lbf	lug back

Resolution .0005"/0.01mm

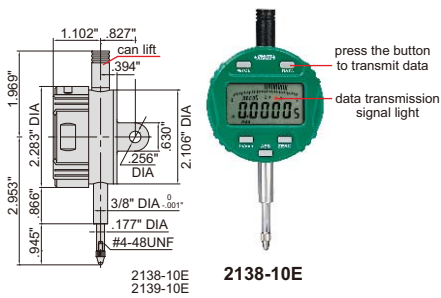
Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2104-10E*	.5"/12.7mm	±.00015"	.0005"	.337lbf	lug back
2104-25E*	1"/25.4mm	±.00015"	.0005"	.495lbf	lug back
2104-50E*	2"/50.8mm	±.00015"	.0005"	.562lbf	lug back

*Supplied with manufacturer inspection certificate

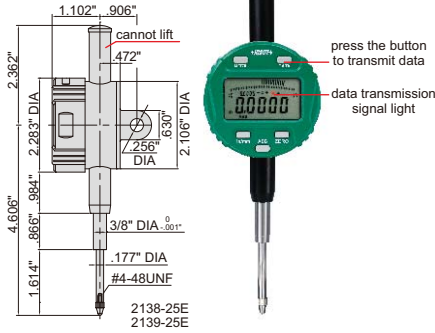
- Meet ASME B89.1.10M-2001
- Reading in digital and analog
- Display can be rotated by 320°
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M), backs, contact points

DIGITAL INDICATORS (WITH TRANSMISSION BUTTON AND SIGNAL LIGHT)

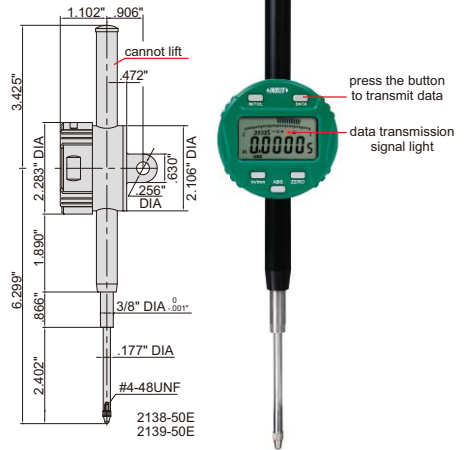
DATA OUTPUT



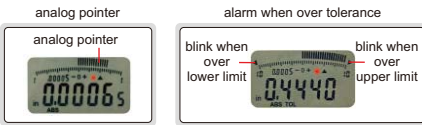
2138-10E



2139-25E



2138-50E



Resolution .00005"/0.001mm

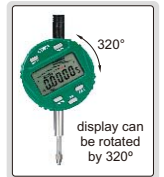
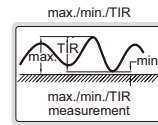
Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2138-10FE*	.5"/12.7mm	±.00015"	.00005"	.337lbf	flat back
2138-10E*	.5"/12.7mm	±.00015"	.00005"	.337lbf	lug back
2138-25E*	1"/25.4mm	±.00015"	.00005"	.495lbf	lug back
2138-50E*	2"/50.8mm	±.00015"	.00005"	.562lbf	lug back

Resolution .0005"/0.01mm

Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2139-10E*	.5"/12.7mm	±.00015"	.0005"	.337lbf	lug back
2139-25E*	1"/25.4mm	±.00015"	.0005"	.495lbf	lug back
2139-50E*	2"/50.8mm	±.00015"	.0005"	.562lbf	lug back

*Supplied with manufacturer inspection certificate

spindle lift knob is included



- Meet ASME B89.1.10M-2001
- Reading in digital and analog
- Display can be rotated by 320°
- Button function: on/off, zero, tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement, data output
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (flat back: part no. 7315-51, 7302-40M, 7305-40M; lug back: part no. 7315-50M, 7302-40M, 7305-40M), backs, contact points

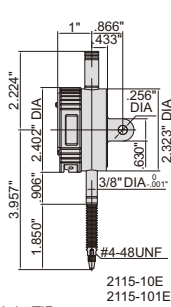
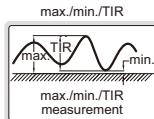
WATERPROOF DIGITAL INDICATORS

INSPECTION CERTIFICATE

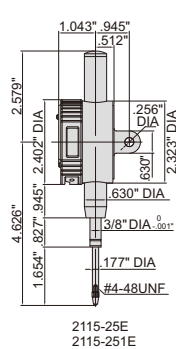
WATERPROOF

DATA OUTPUT

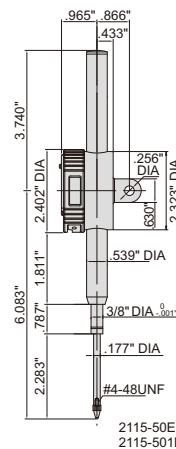
spindle lift knob is included (except 2115-10E/101E)



2115-10E



2115-25E



2115-50E

Resolution .00005"/0.001mm

Part No.	Range	Dust/waterproof	Accuracy	Hysteresis
2115-101E*	.5"/12.7mm	IP65	±.00015"	.00005"
2115-251E*	1"/25.4mm	IP54	±.00015"	.00005"
2115-501E*	2"/50.8mm	IP54	±.00015"	.00005"

Resolution .0005"/0.01mm

Part No.	Range	Dust/waterproof	Accuracy	Hysteresis
2115-10E*	.5"/12.7mm	IP65	±.0015"	.0005"
2115-25E*	1"/25.4mm	IP54	±.0015"	.0005"
2115-50E*	2"/50.8mm	IP54	±.0015"	.0005"

*Supplied with manufacturer inspection certificate

alarm when over tolerance



- Meet ASME B89.1.10M-2001
- Dust/waterproof
- Button function: on/off, zero, inch/mm, data preset, tolerance, change measuring direction, max./min./TIR measurement, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off
- Data output, with lug back
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M), backs, contact points

DIGITAL INDICATORS FOR BORE GAGES (WITH TRANSMISSION BUTTON AND SIGNAL LIGHT)

THE ORIGINAL DATA
REMAINS AFTER POWER OFF

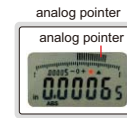
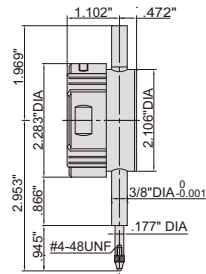
DATA
OUTPUT

INSPECTION
CERTIFICATE

- Specially designed for bore gages
- The minimum value tracking function can find the diameter automatically
- Read the diameter directly, after inputting the size of setting ring
- Display can be rotated by 320°
- Reading in digital and analog
- Button function: on/off, minimum value tracking, calibration, data preset, inch/metric conversion
- Data remains after power off, no need to recalibrate after power on
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-51, 7302-40M, 7305-40M), backs, contact points, spindle lift knob (part no. 7332)



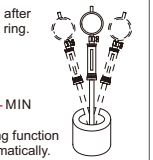
2108-10EF



Part No.	Range	Resolution	Accuracy	Hysteresis	Remark
2108-10EF*	.5"/12.7mm	.0001"/0.002mm (can switch to .0005"/0.01mm)	±.0015"	.0005"	flat back
2108-101EF*	.5"/12.7mm	.00005"/0.001mm	±.00015"	.00005"	flat back

*Supplied with manufacturer inspection certificate

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

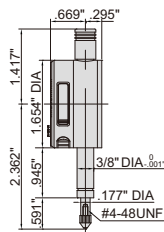


The minimum value tracking function can find the diameter automatically.

COMPACT DIGITAL INDICATORS

INSPECTION
CERTIFICATE

DATA
OUTPUT



2114-51FE

- Meet ASME B89.1.10M-2001
- 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
O/ON: short press to turn on when power is off
short press to set zero when power is on
long press to turn off
- Keep preset data in memory after restart
- CR1632 battery, automatic power off
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M), contact points

Part No.	Range	Resolution	Accuracy	Hysteresis	Remark
2114-5FE*	.2"/5mm	.0005"/0.01mm	±.0015"	.0005"	flat back
2114-51FE*	.2"/5mm	.00005"/0.001mm	±.00015"	.00005"	flat back

*Supplied with manufacturer inspection certificate

BACK PLUNGER TYPE DIGITAL INDICATOR

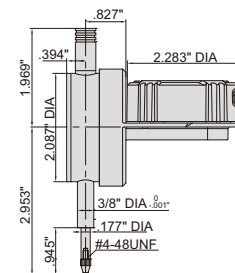
INSPECTION
CERTIFICATE

DATA
OUTPUT

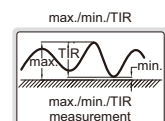
- Display can rotate 320°, and display direction is changeable
- Reading in digital and analog
- Meet ASME B89.1.10-2001
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- With flat back
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M), backs, contact points



2118-10E



spindle lift knob is included



display direction is changeable



display can rotate 320°



remark: to change above direction, 4 fixing screws on the back of display need to be removed first.

Part No.	Range	Resolution	Accuracy	Hysteresis
2118-10E*	.5"/12.7mm	.0005"/0.01mm	±.0015"	.0005"

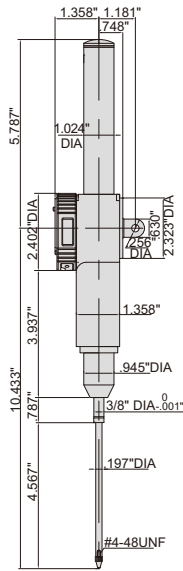
*Supplied with manufacturer inspection certificate

LARGE STROKE DIGITAL INDICATORS

DATA OUTPUT



2117-100E



alarm when over tolerance

max./min./TIR

max./min./TIR measurement

spindle lift knob is included

- Button function: on/off, zero, inch/mm, data preset, tolerance, change measuring direction, max./min./TIR measurement, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off
- Data output
- With lug back
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M), backs, contact points

Resolution .0005"/0.01mm

Part No.	Range	Accuracy	Hysteresis
2117-100E	4"/100mm	±.0015"	.0005"

Resolution .00005"/0.001mm

Part No.	Range	Accuracy	Hysteresis
2117-1001E	4"/100mm	±.00030"	.0001"

HIGH PRECISION DIGITAL INDICATOR

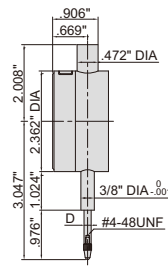
LINEAR BALL BEARINGS FOR TEN MILLION TIMES USE

DATA OUTPUT

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

INSPECTION CERTIFICATE



2133-101E

alarm when over tolerance

max./min./TIR

max./min./TIR measurement

spindle lift knob is included

analog pointer

- Linear ball bearings for ten million times use
- Absolutely encoder, the original data remains after power off
- Reading in digital and analog
- Data output
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, inch/mm, adjust resolution
- Power: rechargeable battery, for 24 hours continuous working
- Optional accessory: contact points wireless transmitter, part no. 7315-60 data output cable (keyboard format), part no. 7302-60 data output cable (serial port format), part no. 7305-G60 (cable length 10ft, optional cable length maximum 50ft; RS232 protocol, optional RS485 protocol)

High precision

Ruby probe
Adjustable resolution .00001"/0.0002mm
.00005"/0.001mm
.0005"/0.01mm

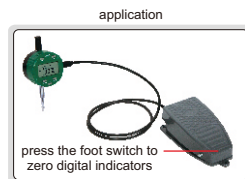
Part No.	Range	Accuracy	Hysteresis	D (DIA)	Remark
2133-101E*	.5"/12.7mm	±.00006"	.00004"	.157"	flat back

*Supplied with manufacturer inspection certificate

ZEROING FOOT SWITCH



7360-1M



- For zeroing of digital indicators

Part No.	Description	Interface of digital indicators	Applicable products
7360-1M	zeroing foot switch with cable (length 100")		for digital indicators

PRECISION DIAL INDICATOR

SHOCK PROOF

JEWELLED BEARING

INSPECTION CERTIFICATE

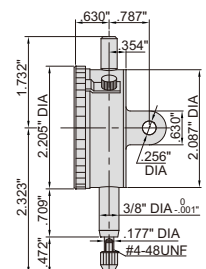
- Meet ASME B89.1.10M-2001
- Shockproof
- Jeweled bearing
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

Part No.	Range	Graduation	Accuracy		Range/rev	Dial reading
			First 2.5 rev	Overall		
2315-05*	.05"	.0001"	±.0001"	±.0003"	.01"	0-100

*Supplied with manufacturer inspection certificate



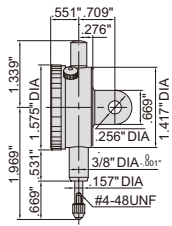
2315-05



COMPACT DIAL INDICATORS



- Meet ASME B89.1.10M-2001
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points



2304-01

Part No.	Range	Graduation	Accuracy		Range/rev	Dial reading
			First 2.5 rev	Overall		
2304-01*	.1"	.001"	—	±.001"	.1"	0-100
2304-02*	.2"	.001"	—	±.001"	.1"	0-100
2304-025*	.25"	.001"	±.001"	±.001"	.1"	0-100
2304-015*	.1"	.0005"	—	±.0005"	.05"	0-50
2304-0255*	.25"	.0005"	±.0005"	±.0015"	.05"	0-50

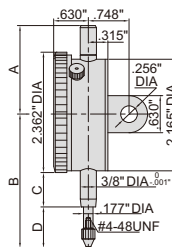
*Supplied with manufacturer inspection certificate

DIAL INDICATORS

POPULAR MODEL



- Meet ASME B89.1.10M-2001
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points



2307-1

Range	A	B	C	D
.25"	1.811"	2.953"	.787"	.984"
.5"	1.811"	2.953"	.787"	.984"
1"	1.811"	3.346"	.787"	1.378"
2"	4.370"	5.472"	1.969"	2.323"

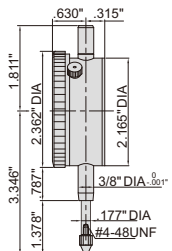
Part No.	Range	Graduation	Accuracy		Range/rev	Dial reading
			First 2.5 rev	Overall		
2307-025*	.25"	.001"	±.001"	±.001"	.1"	0-100
2307-05*	.5"	.001"	±.001"	±.002"	.1"	0-100
2307-1*	1"	.001"	±.001"	±.002"	.1"	0-100
2307-2*	2"	.001"	±.001"	±.004"	.1"	0-100
2307-0255*	.25"	.0005"	±.0005"	±.0015"	.05"	0-50
2307-055*	.5"	.0005"	±.0005"	±.0015"	.05"	0-50
2307-105*	1"	.0005"	±.0005"	±.002"	.05"	0-50

*Supplied with manufacturer inspection certificate

REVERSE READING DIAL INDICATOR



- Meet ASME B89.1.10M-2001
- With flat back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points



2307-1RF

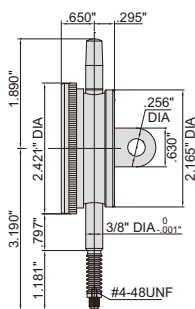
Part No.	Range	Graduation	Accuracy		Range/rev	Dial reading
			First 2.5 rev	Overall		
2307-1RF*	1"	.001"	±.001"	±.002"	.1"	100-0

*Supplied with manufacturer inspection certificate

WATERPROOF DIAL INDICATORS



- Meet ASME B89.1.10M-2001
- IP54 dust/waterproof
- With limit pointers
- Optional accessory: backs, contact points



2324-04A

Part No.	Range	Graduation	Accuracy		Range/rev	Dial reading	Remark
			First 2.5 rev	Overall			
2324-04FA*	.4"	.0005"	±.0005"	±.0015"	.05"	0-50	flat back
2324-04A*	.4"	.0005"	±.0005"	±.0015"	.05"	0-50	lug back

*Supplied with manufacturer inspection certificate

LARGE DIAL FACE DIAL INDICATORS



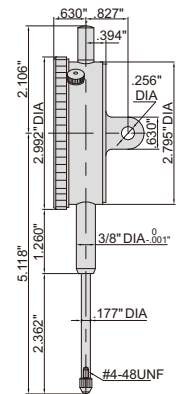
- Meet ASME B89.1.10M-2001
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: contact points

Part No.	Range	Graduation	Accuracy		Range/rev	Dial reading
			First 2.5 rev	Overall		
2312-15*	1.5"	.001"	±.001"	±.004"	.1"	0-100
2312-2*	2"	.001"	±.001"	±.004"	.1"	0-100

*Supplied with manufacturer inspection certificate



2312-15



BACK PLUNGER TYPE DIAL INDICATOR



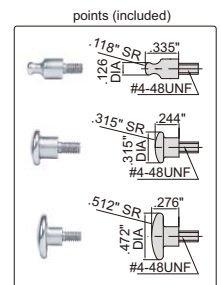
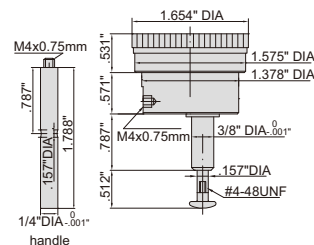
handle can be removed



- Graduation .001"
- Dial reading: 0-100
- Supplied with handle
- Optional accessory: contact points



2320-02



Part No.	Range	Accuracy	Hysteresis	Range/rev
2320-02*	.2"	±.001"	.00033"	.1"

*Supplied with manufacturer inspection certificate

BACK PLUNGER TYPE DIAL INDICATOR SET



application



- Graduation .001"

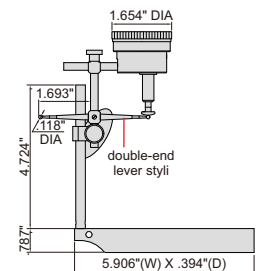
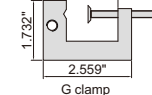
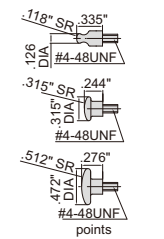
Part No.	Range**	Accuracy	Range/rev	Dial reading
2224-02*	.2"	±.001"	.1"	0-100

*Supplied with manufacturer inspection certificate

**When using double-end lever styli, the range is .1"



2224-02



LONG STROKE DIAL INDICATOR



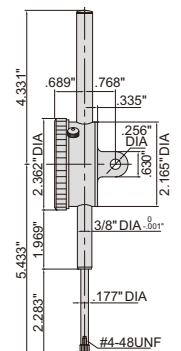
- Graduation .001"
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

Part No.	Range	Accuracy		Range/rev	Dial reading
		First 2.5 rev	Overall		
2326-2*	2"	±.001"	±.004"	.1"	0-100

*Supplied with manufacturer inspection certificate



2326-2



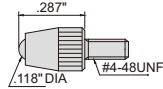
CONTACT POINTS



6282-0102

BALL POINT

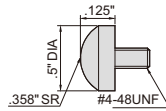
Part No.	Material of measuring face
6282-0102	carbide



6282-0402

SPHERICAL POINT

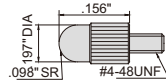
Part No.	Material of measuring face
6282-0402	steel



6282-0201

SHELL TYPE POINT

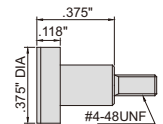
Part No.	Material of measuring face
6282-0201	steel



6282-1207

FLAT POINT

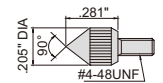
Part No.	Material of measuring face
6282-1207	steel



6282-0702

CONICAL POINT

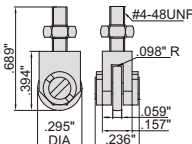
Part No.	Material of measuring face
6282-0702	steel



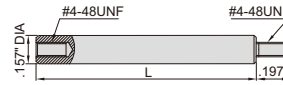
6282-1902

ROLLER POINT

Part No.	Material of measuring face
6282-1902	steel



EXTENSION RODS



6282-2018

Part No.	Material	L
6282-2018	steel	1"
6282-2019	steel	2"
6282-2020	steel	4"

MAGNETIC BACKS



front

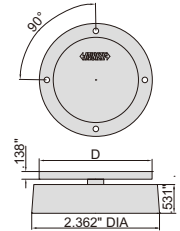


back

7331-M2



Part No.	D	For digital/ dial indicators
7331-M1	2.028" DIA	2103, 2104, 2112, 2115, 2117, 2118
7331-M2	2.126" DIA	2307

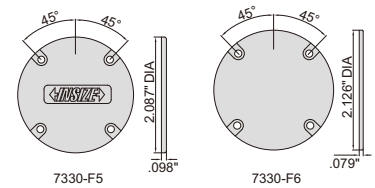


FLAT BACKS

Part No.	For digital/ dial indicators
7330-F5	2103
	2104
	2112
	2115
	2117
	2118
7330-F6	2307
	2326-2



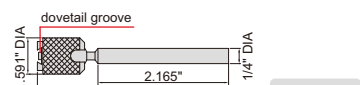
7330-F5



DIAL TEST INDICATOR UNIVERSAL HOLDER



6293-5



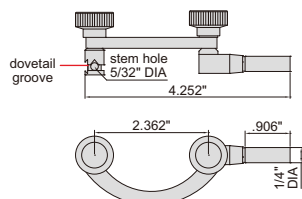
- Set the indicators at the desired attitude to the workpiece

Part No.
6293-5

DIAL TEST INDICATOR HOLDER



6291-2



- Can be used with dial test indicators

Part No.
6291-2

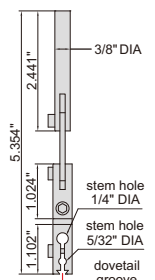
DIAL TEST INDICATOR HOLDER



6296-2

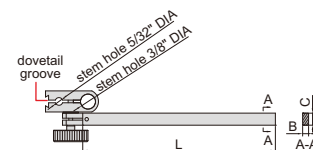
- Supplied with hex key

Part No.
6296-2



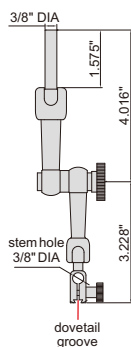
DIAL TEST INDICATOR HOLDERS

Part No.	Stem section (BxC)	Stem length (L)
6293-7	.354x.354"	2"
6293-3	.25x.5"	4"



DIAL TEST INDICATOR HOLDER

- Can be used with dial test indicators

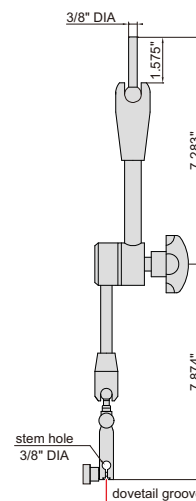


6295-1AE

Part No.
6295-1AE

DIAL INDICATOR HOLDER

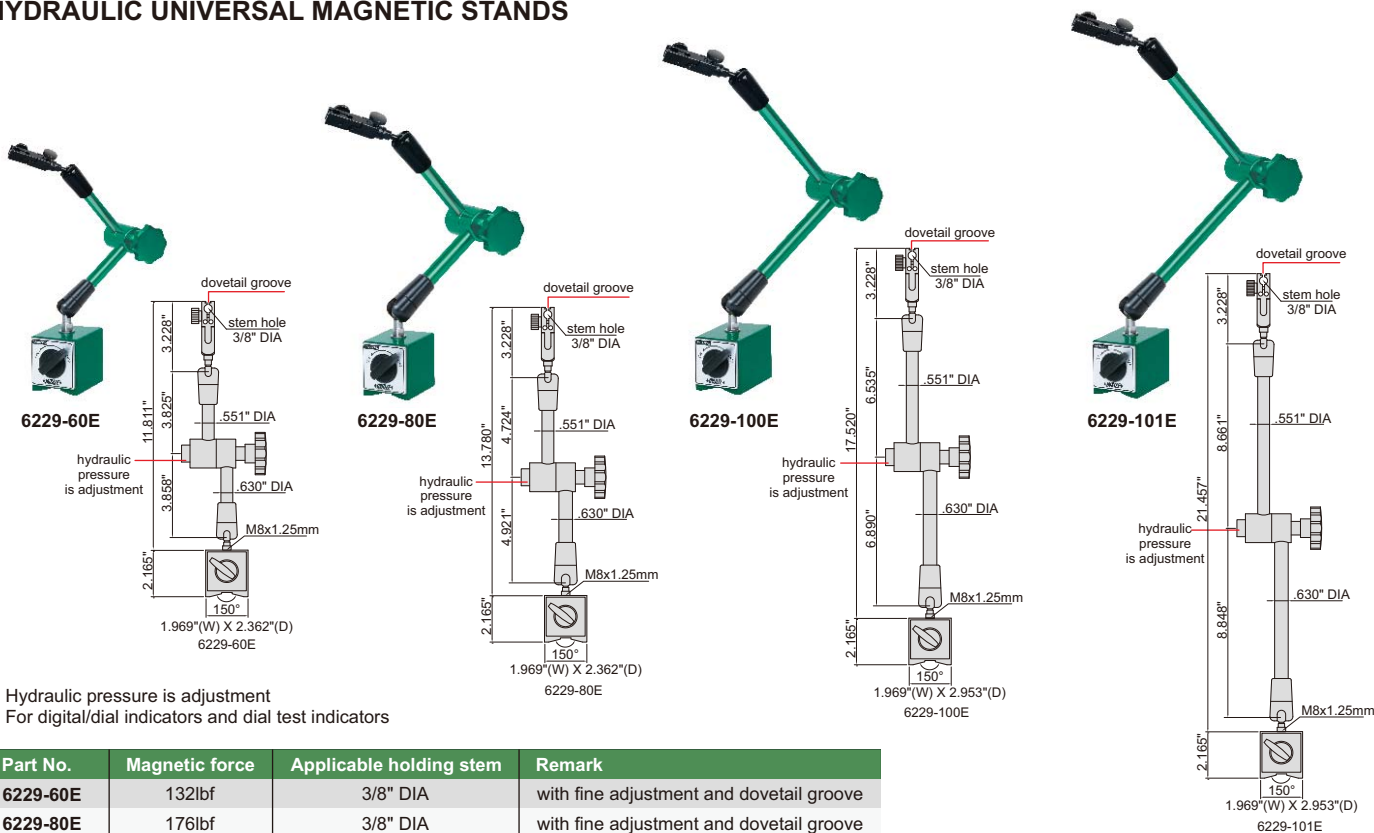
- Can be used with dial test indicators or dial indicators



6294-1AE

Part No.
6294-1AE

HYDRAULIC UNIVERSAL MAGNETIC STANDS

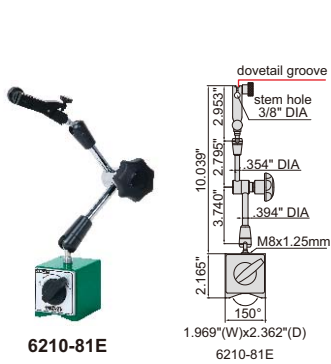


- Hydraulic pressure is adjustment
- For digital/dial indicators and dial test indicators

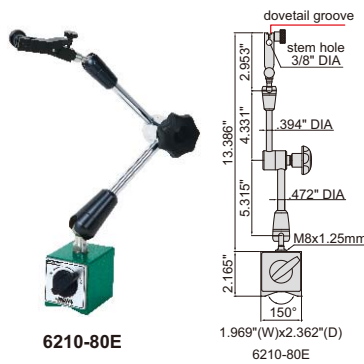
Part No.	Magnetic force	Applicable holding stem	Remark
6229-60E	132lbf	3/8" DIA	with fine adjustment and dovetail groove
6229-80E	176lbf	3/8" DIA	with fine adjustment and dovetail groove
6229-100E	220lbf	3/8" DIA	with fine adjustment and dovetail groove
6229-101E	220lbf	3/8" DIA	with fine adjustment and dovetail groove

UNIVERSAL MAGNETIC STANDS

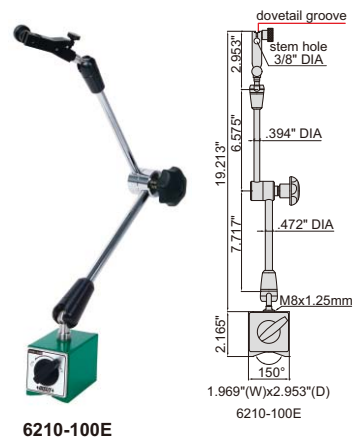
POPULAR MODEL



6210-81E



6210-80E



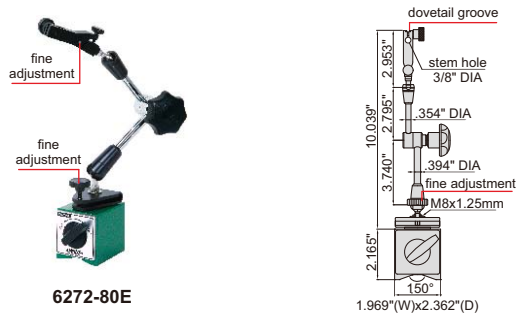
6210-100E

- For digital/dial indicators and dial test indicators

Part No.	Magnetic force	Applicable holding stem	Remark
6210-81E	176lbf	3/8" DIA	with fine adjustment and dovetail groove
6210-80E	176lbf	3/8" DIA	with fine adjustment and dovetail groove
6210-100E	220lbf	3/8" DIA	with fine adjustment and dovetail groove

MAGNETIC STAND WITH TWO FINE ADJUSTMENTS

- For digital/dial indicators and dial test indicators
- Applicable holding stem: 3/8" DIA
- With two fine adjustments and dovetail groove
- With two fine adjustments on the head and on the base

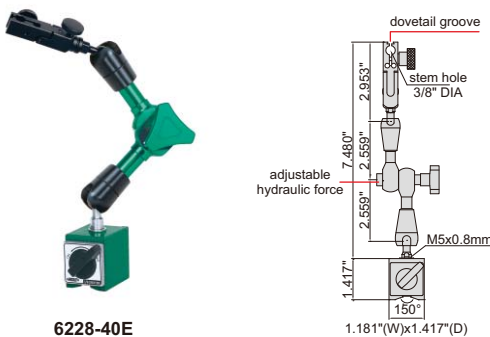


6272-80E

Part No.	Magnetic force
6272-80E	176lbf

HYDRAULIC MINI MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY



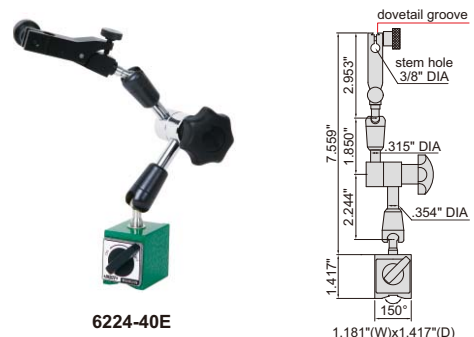
6228-40E

- For dial test indicators
- With fine adjustment and dovetail groove
- Adjustable hydraulic force

Part No.	Magnetic force	Applicable holding stem
6228-40E	88lbf	3/8" DIA

MINI MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY



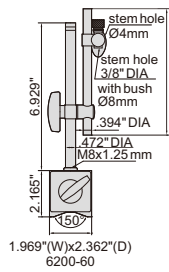
6224-40E

- For dial test indicators
- Applicable holding stem: 3/8" DIA
- With fine adjustment and dovetail groove

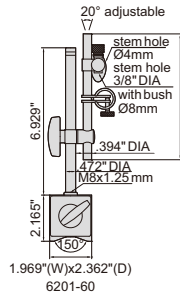
Part No.	Magnetic force
6224-40E	88lbf

MAGNETIC STANDS

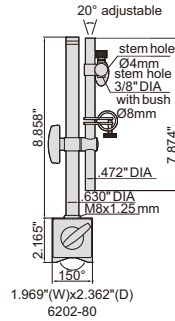
POPULAR MODEL



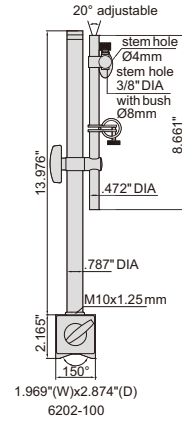
6200-60



6201-60



6202-80



6202-100

- For digital/dial indicators and dial test indicators

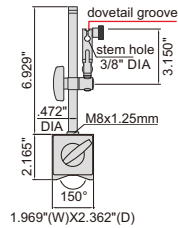
Part No.	Magnetic force	Applicable holding stem	Remark
6200-60	132lbf	3/8" DIA, Ø8mm, Ø4mm	without fine adjustment
6201-60	132lbf	3/8" DIA, Ø8mm, Ø4mm	with fine adjustment
6202-80	176lbf	3/8" DIA, Ø8mm, Ø4mm	with fine adjustment
6202-100	220lbf	3/8" DIA, Ø8mm, Ø4mm	with fine adjustment

MAGNETIC STAND (FOR .00005" DIAL AND TEST INDICATORS)

- For .00005", .0001" and .0005" dial and test indicators
- With fine adjustment and dovetail groove



6221-80E



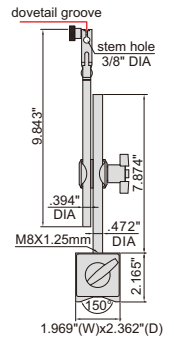
Part No.	Magnetic force	Applicable holding stem
6221-80E	176lbf	3/8" DIA

MAGNETIC STAND

- For digital/dial indicators and dial test indicators
- Applicable holding stem: 3/8" DIA
- With fine adjustment and dovetail groove

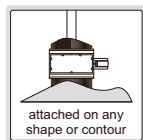


6216-80E

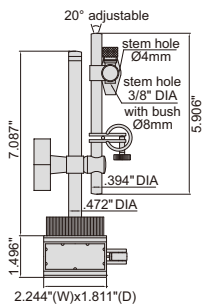


Part No.	Magnetic force
6216-80E	176lbf

MAGNETIC STAND FOR UNEVEN SURFACE



6215-60



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

Part No.	Magnetic force	Applicable holding stem
6215-60	132lbf	3/8" DIA, Ø8mm, Ø4mm

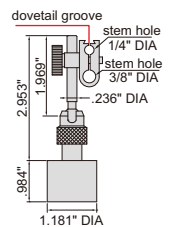
MINI MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY

- For dial test indicators
- With dovetail groove



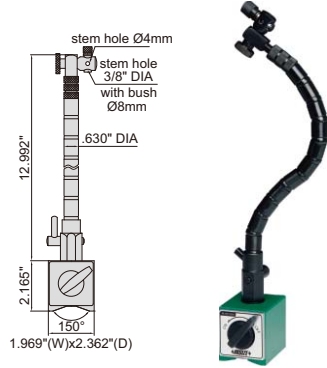
6211-10E



Part No.	Magnetic force	Applicable holding stem
6211-10E	22lbf	1/4" DIA, 3/8" DIA

FLEX ARM MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY



6207-80A

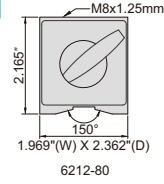
- For dial test indicators
- Applicable holding stem: 3/8" DIA, Ø8mm, Ø4mm

Part No.	Magnetic force
6207-80A	176lbf

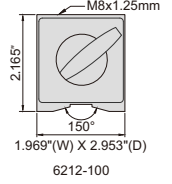
MAGNETIC BASES



6212-80



6212-100



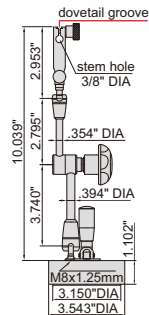
Part No.	Magnetic force
6212-80	176lbf
6212-100	220lbf

VACUUM STAND

- Suitable for granite surface plates or cast iron surface plates
- For digital/dial indicators and dial test indicators
- With fine adjustment and dovetail groove

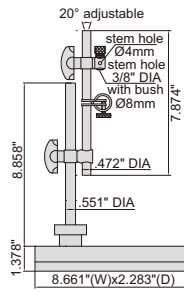


6217-BE



Part No.	Diameter of vacuum disc	Vacuum force	Applicable holding stem
6217-BE	3.150" DIA	176lbf	3/8" DIA

UNIVERSAL STAND

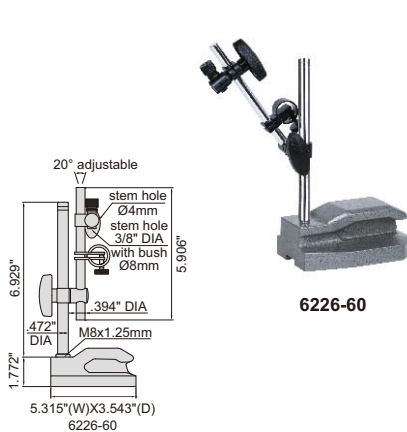


6214-A

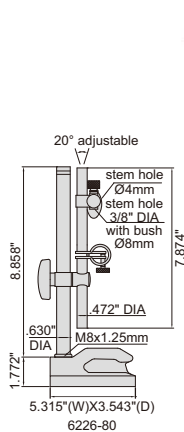
- For digital/dial indicators and dial test indicators
- With fine adjustment

Part No.	Applicable holding stem
6214-A	3/8" DIA, Ø8mm, Ø4mm

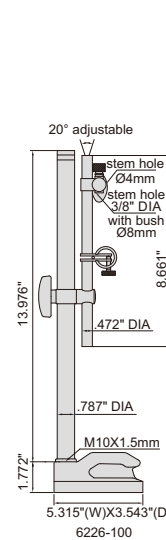
DIAL INDICATOR STANDS (NON-MAGNETIC)



6226-60



6226-80



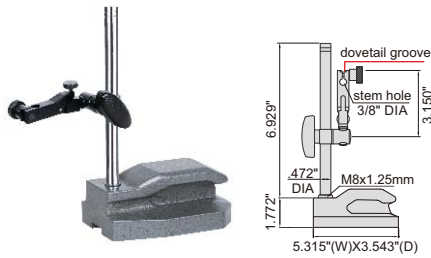
6226-100

Part No.	Remark
6226-60	with fine adjustment
6226-80	with fine adjustment
6226-100	with fine adjustment

- Applicable holding stem: 3/8" DIA, Ø8mm, Ø4mm
- Hardened base
- Suitable for granite surface plates or cast iron surface plates
- For digital/dial indicators and dial test indicators

DIAL INDICATOR STAND (FOR .00005" DIAL AND TEST INDICATORS)

- Non-magnetic and hardened base
- Suitable for granite surface plates or cast iron surface plates
- For .00005", .0001" and .0005" dial and test indicators
- With fine adjustment and dovetail groove

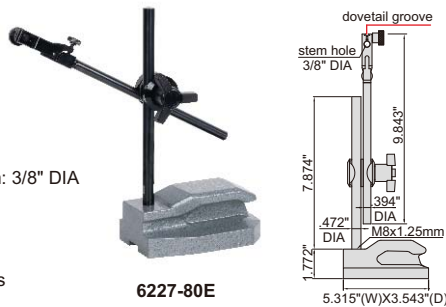


6230-60E

Part No.	Applicable holding stem
6230-60E	3/8" DIA

DIAL INDICATOR STAND (NON-MAGNETIC)

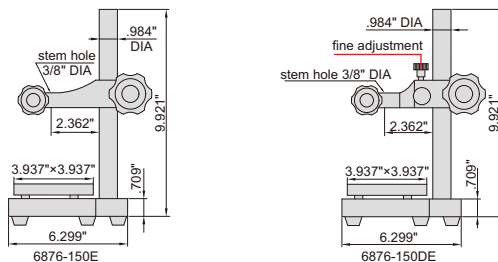
- Applicable holding stem: 3/8" DIA
- Hardened base
- Suitable for granite surface plates or cast iron surface plates
- For digital/dial indicators and dial test indicators



6227-80E

Part No.	Remark
6227-80E	with fine adjustment and dovetail groove

DIAL INDICATOR STANDS



- Applicable holding stem: 3/8" DIA
- Vertical travel of holder: 6"
- Ceramic anvil
- Supplied with dust cover
- Anvil: ceramic, plain, flatness 59µm

Part No.	Remark
6876-150E	without fine adjustment
6876-150DE	with fine adjustment, fine adjustment range .118"

UNIVERSAL DIAL INDICATOR STANDS (NON-MAGNETIC)



6225-80E

6225-100E

- Applicable holding stem: 3/8" DIA
- Hardened base
- Suitable for granite surface plates or cast iron surface plates
- For digital/dial indicators and dial test indicators

Part No.	Remark
6225-80E	with fine adjustment and dovetail groove
6225-100E	with fine adjustment and dovetail groove

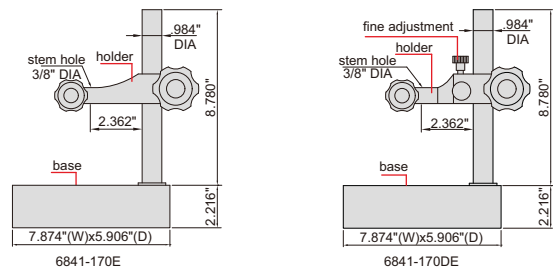
GRANITE DIAL INDICATOR STANDS (BASIC TYPE)

POPULAR MODEL



6841-170E

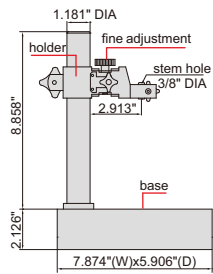
6841-170DE



- Vertical travel of holder: 6.7"
- Applicable holding stem: 3/8" DIA
- Base: flatness 98µm
- Supplied with dust cover

Part No.	Remark
6841-170E	without fine adjustment
6841-170DE	with fine adjustment, fine adjustment range .118"

GRANITE DIAL INDICATOR STAND



6866-150E

- Vertical travel of holder: 5.906"
- Fine adjustment range .079"
- Supplied with dust cover

Part No.	Applicable holding stem	Base
6866-150E	3/8" DIA	flatness 98µin

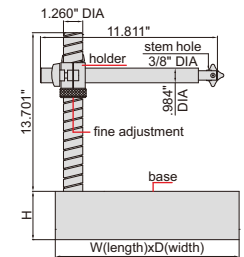
GRANITE DIAL INDICATOR STANDS



6867-250E



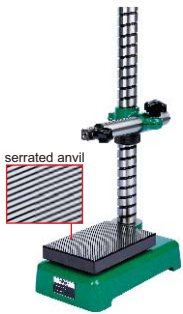
6867-400E



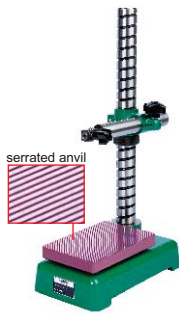
- Applicable holding stem: 3/8" DIA
- Vertical travel of holder: 9.843"
- Fine adjustment range: entire stroke
- Supplied with dust cover

Part No.	W	D	H	Base
6867-250E	11.811"	11.811"	2.953"	flatness 110µin
6867-400E	15.748"	11.811"	3.937"	flatness 118µin

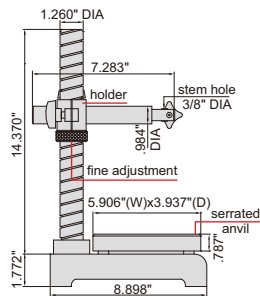
DIAL INDICATOR STANDS



6864-250E



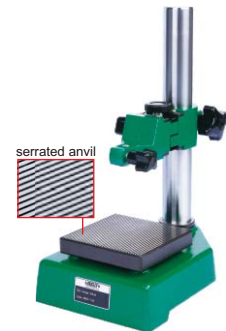
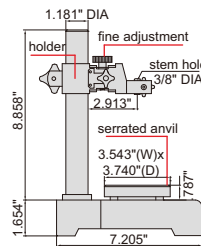
6864-250TE



- Vertical travel of holder: 9.843"
- Applicable holding stem: 3/8" DIA
- Fine adjustment range: entire stroke
- Supplied with dust cover

Part No.	Anvil
6864-250E	steel (hardness HRC60±2) serrated, flatness 59µin
6864-250TE	ceramic, serrated, flatness 59µin

DIAL INDICATOR STAND



6863-150E

- Vertical travel of holder: 5.906"
- Fine adjustment range .079"
- Applicable holding stem: 3/8" DIA
- Supplied with dust cover

Part No.	Anvil
6863-150E	steel (hardness HRC60±2), serrated, flatness 59µin

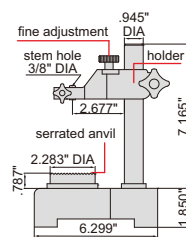
DIAL INDICATOR STANDS

- Vertical travel of holder: 3.937"
- Fine adjustment range .079"
- Applicable holding stem: 3/8" DIA
- Supplied with dust cover

Part No.	Anvil
6862-1001E	steel (hardness HRC60±2), serrated, flatness 59µin
6862-1002E	steel (hardness HRC60±2), plain, flatness 59µin



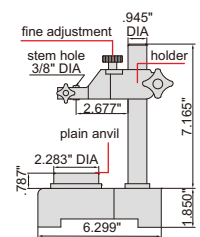
6862-1001E



6862-1001E



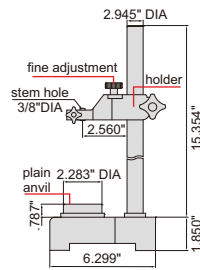
6862-1002E



6862-1002E

TRANSFER STANDS

- Vertical travel of holder: 13.189"
- Fine adjustment range .079"
- Applicable holding stem: 3/8" DIA
- Supplied with dust cover



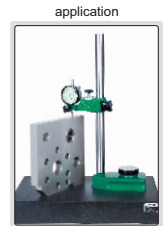
Part No.	Anvil
6865-300E	steel (hardness HRC60±2), plain, flatness 59µin
6865-300TE	ceramic, plain, flatness 59µin



6865-300E



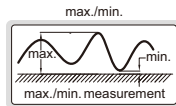
6865-300TE



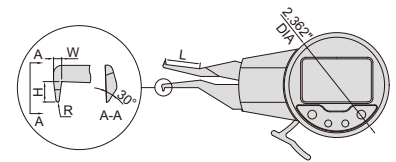
rigid construction, designed to make comparison height measurement (set zero with gage block then measure height of workpiece) with dial indicators or digital indicators (variation of measuring force is high)

DIGITAL INTERNAL CALIPER GAGES

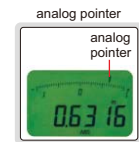
- Resolution .0002"/0.005mm
- Reading in digital and analog
- Display can be rotated by 170°
- Button function: tolerance Go and No-Go display, data preset, max./min. measurement, data holding, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, data output
- Automatic power off
- Optional accessory: data output cable (part no. 7315-30, 7302-30)



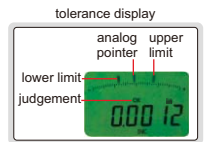
2121-15



Part No.	Range	Accuracy	L	H	W	R	Repeatability
2121-15	.2-.6"/5-15mm	±.0012"	.787"	.079"	.059"	.012"R	.0004"
2121-25	.2-1.0"/5-25mm	±.0012"	1.378"	.059"	.039"	.012"R	.0004"
2121-31	.4-1.2"/10-30mm	±.0012"	2.165"	.217"	.098"	.020"R	.0004"
2121-41	.8-1.6"/20-40mm	±.0012"	3.150"	.236"	.118"	.020"R	.0004"
2121-51	1.2-2.0"/30-50mm	±.0012"	3.150"	.315"	.118"	.020"R	.0004"



analog pointer



tolerance display

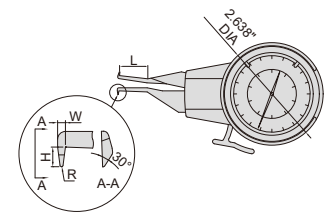
DATA OUTPUT

INTERNAL DIAL CALIPER GAGES

Part No.	Range	Accuracy	Graduation	L	H	W	R
2222-E06	.2-.6"	±.0012"	.0005"	.787"	.079"	.059"	.012"R
2222-E10	.2-1.0"	±.0012"	.0005"	1.378"	.059"	.039"	.012"R
2222-E121	.4-1.2"	±.0012"	.0005"	2.165"	.217"	.098"	.020"R
2222-E161	.8-1.6"	±.0012"	.0005"	3.150"	.236"	.118"	.020"R
2222-E201	1.2-2.0"	±.0012"	.0005"	3.150"	.315"	.118"	.020"R



2222-E06



DIGITAL INTERNAL CALIPER GAGES

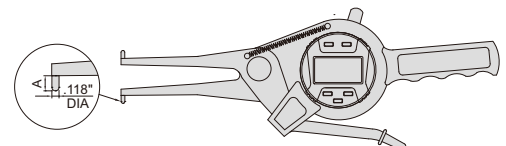
- Carbide measuring tips
- Reading in digit and analog
- With transmission button and signal light
- Display can be rotated by 320°
- Button function: on/off, zero, tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)



2151-35

DATA OUTPUT

Part No.	Range	Resolution	Accuracy	L	A
2151-35	.6-1.4"/15-35mm	.0005"/0.01mm	±.0016"	<1.969"	.118"
2151-55	1.4-2.2"/35-55mm	.0005"/0.01mm	±.0016"	<3.150"	.236"



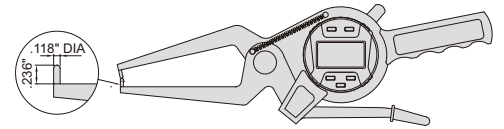
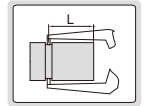
DIGITAL EXTERNAL CALIPER GAGES

DATA OUTPUT

- Carbide measuring tips
- Reading in digit and analog
- With transmission button and signal light
- Display can be rotated by 320°
- Button function: on/off, zero, 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 (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)



2132-20

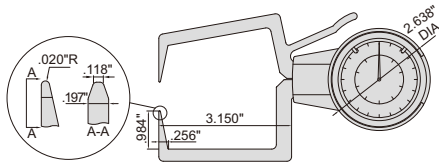


Part No.	Range	Resolution	Accuracy	L
2132-20	0-.8"/0-20mm	.0005"/0.01mm	±.0016"	<2.362"
2132-40	.8-1.6"/20-40mm	.0005"/0.01mm	±.0016"	<2.362"

EXTERNAL DIAL CALIPER GAGE



2333-E081



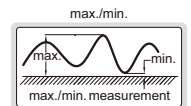
Part No.	Range	Graduation	Accuracy
2333-E081	0-.8"	.0005"	±.0012"

DIGITAL EXTERNAL CALIPER GAGE

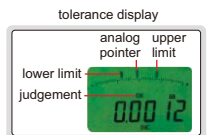
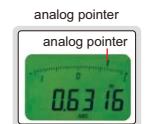
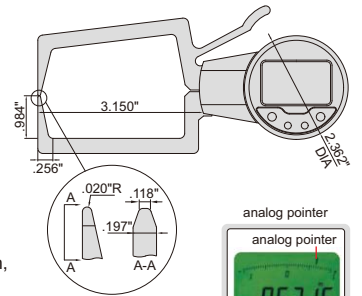
DATA OUTPUT



2131-21



- Accuracy: ±.0012"
- Resolution .0002"/0.005mm
- Repeatability .0004"
- Reading in digital and analog
- Display can be rotated by 170°
- Button function: tolerance Go and No-Go display, data preset, max./min. measurement, data holding, inch/metric conversion, absolute/incremental measurement
- CR2032 battery
- Data output
- Automatic power off
- Optional accessory: data output cable (part no. 7315-30, 7302-30)

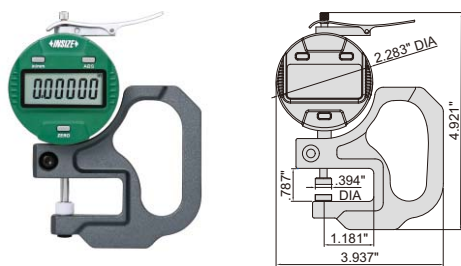


Part No.	Range
2131-21	0-.8"/0-20mm

DIGITAL THICKNESS GAGES

POPULAR MODEL

DATA OUTPUT

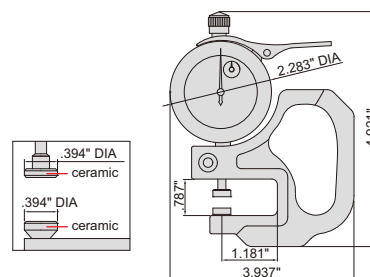


2871-101

- Ceramic spindle tip and anvil
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032, data output
- Automatic power off (time is adjustable)
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)

Part No.	Range	Resolution	Accuracy
2871-10	0-.4"/0-10mm	.0005"/0.01mm	±.001"
2871-101	0-.4"/0-10mm	.00005"/0.001mm	±.0002"

THICKNESS GAGE

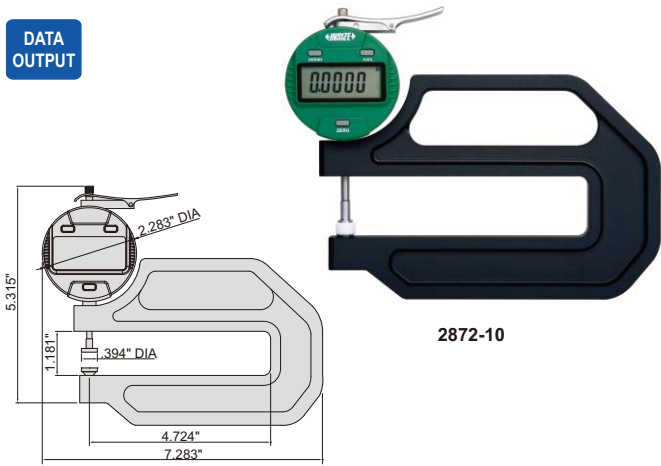


2364-055

Part No.	Range	Graduation	Accuracy
2364-055	0-.5"	.0005"	±.0008"

DIGITAL THICKNESS GAGES

DATA OUTPUT



2872-10

- Ceramic spindle tip and anvil
- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032
- Automatic power off (time is adjustable), data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)

measuring tips and anvils can be custom-made



Part No.	Range	Resolution	Accuracy
2872-10	0-.4"/0-10mm	.0005"/0.01mm	±.001"
2872-101	0-.4"/0-10mm	.00005"/0.001mm	±.0004"

DIGITAL ROLLER THICKNESS GAGES

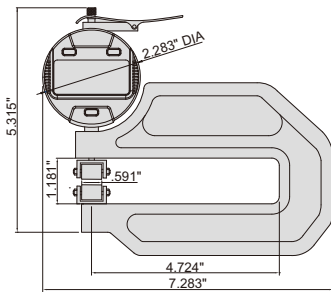
DATA OUTPUT



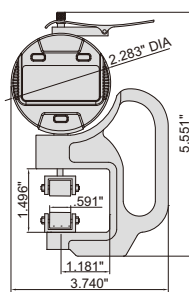
2877-4



2877-10



2877-4

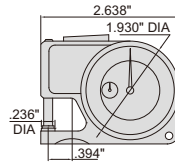


2877-10

- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)

Part No.	Range	Resolution	Accuracy
2877-4	0-.18"/0-4.5mm	.0005"/0.01mm	±.001"
2877-10	0-.4"/0-10mm	.0005"/0.01mm	±.001"

THICKNESS GAGE



2363-055

- Stainless steel spindle tip and anvil

Part No.	Range	Graduation	Accuracy
2363-055	0-.5"	.0005"	±.0015"

HIGH PRECISION DIGITAL THICKNESS GAGES

ATTENTION: RECHARGEABLE BATTERY, FOR 12 HOURS CONTINUOUS WORKING

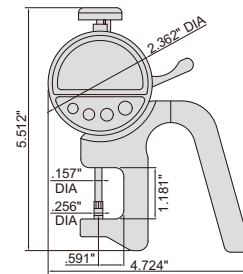
ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

MEASURING TIPS AND ANVILS CAN BE CUSTOM-MADE

DATA OUTPUT



2879-10

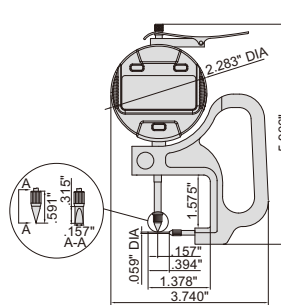


- Absolute encoder, the original data remains after power off
- Button function: on/off, zero, tolerance, absolute/incremental measurement, max./min./TIR, data preset, mm/inch, data output, data hold
- Measuring force .11-.22lbf
- Reading in digital and analog
- Power: rechargeable battery, for 12 hours continuous working
- Data output
- Supplied with data output cable (keyboard format)

Part No.	Range	Resolution	Accuracy	Repeatability
2879-10	0-.4"/0-10mm	.00005"/0.001mm	±.0001"	.00005"
2879-101	0-.4"/0-10mm	.00002"/0.0005mm	±.00006"	.00002"

DIGITAL TUBE THICKNESS GAGE

DATA OUTPUT

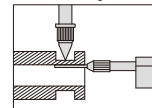


2873-10

- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032
- Data output, automatic power off (time is adjustable)
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)



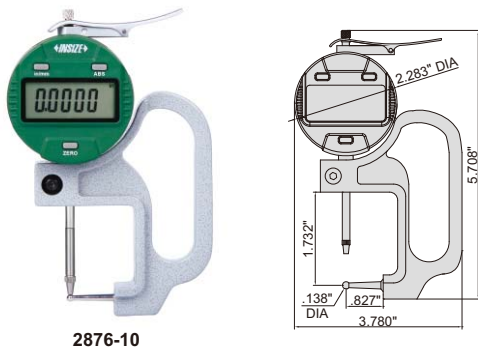
measure wall thickness of grooves



Part No.	Range	Resolution	Accuracy
2873-10	0-.4"/0-10mm	.0005"/0.01mm	±.001"

DIGITAL TUBE THICKNESS GAGE

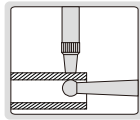
DATA
OUTPUT



2876-10

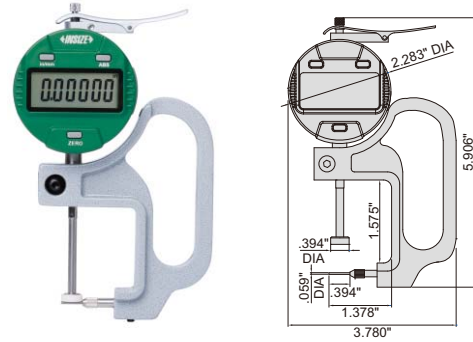
- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)

Part No.	Range	Resolution	Accuracy
2876-10	0-.4"/0-10mm	.0005"/0.01mm	±.001"



DIGITAL TUBE THICKNESS GAGES

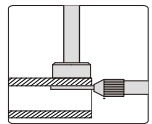
DATA
OUTPUT



2859-101

- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-50M)

Part No.	Range	Resolution	Accuracy
2859-10	0-.4"/0-10mm	.0005"/0.01mm	±.001"
2859-101	0-.4"/0-10mm	.00005"/0.001mm	±.0002"



DIAL SNAP GAGE (ECONOMIC TYPE)

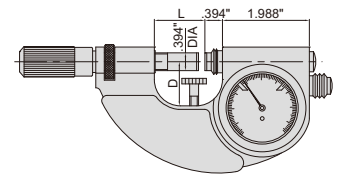
IP54
WATERPROOF

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

- Quick measurement for mass production
- Dial indicator: range ±.0015", graduation .00005", accuracy .00004"
- IP54 dust/waterproof
- Measuring force: 1.125-2.25lbf
- Carbide measuring faces
- Optional accessory: gage blocks grade 0, for zero setting



3334-1



Part No.	Range	L	D
3334-1	0-1"	1.122"	.984"

DIAL SNAP GAGES



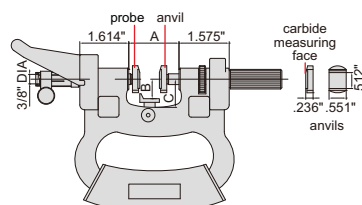
INSPECTION
CERTIFICATE

QUICK AND ACCURATE MEASUREMENT
OF CYLINDRICAL WORKPIECES



digital indicator
is optional

2186-25E



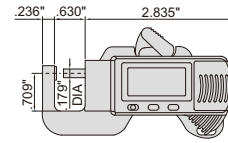
- Left anvil retracting stroke .079"
- Measuring force: 1.35-1.8lbf
- Flatness of anvil: 59µin
- Repeatability: 39µin
- Carbide measuring faces for anvils
- Front edges of anvils are chamfered for easy workpiece insertion
- Optional accessory: dial indicators and digital indicators (reading .00005" or .0005")

Part No.	Range	Parallelism of measuring faces	A	B	C
2186-25E*	0-1"	.00016"	1.654"	.433-.709"	.787"
2186-50E*	1-2"	.00016"	2.717"	.433-1.260"	1.614"
2186-75E*	2-3"	.00020"	3.701"	.669-1.614"	2.008"
2186-100E*	3-4"	.00024"	4.685"	1.220-2.165"	2.559"
2186-125E*	4-5"	.00024"	5.669"	1.654-2.756"	2.953"
2186-150E*	5-6"	.00032"	6.654"	2.165-3.228"	3.543"
2186-175E*	6-7"	.00032"	7.638"	2.677-3.740"	3.937"
2186-200E*	7-8"	.00040"	8.622"	3.346-4.331"	4.528"
2186-225E*	8-9"	.00040"	9.606"	3.740-4.724"	5.118"
2186-250E*	9-10"	.00040"	10.591"	4.331-5.315"	5.709"
2186-275E*	10-11"	.00047"	11.575"	4.724-5.906"	6.299"
2186-300E*	11-12"	.00047"	12.559"	5.039-6.299"	6.693"

*Supplied with manufacturer inspection certificate

DIGITAL SNAP GAGE

ATTENTION: NO DATA OUTPUT



2166-12

Part No.	Range	Resolution	Accuracy
2166-12	0-.5"/0-12mm	.0005"/0.01mm	±.0015"

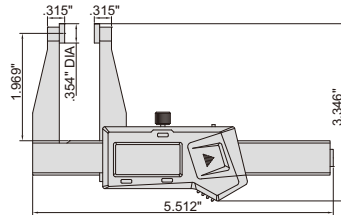
DIGITAL SNAP GAGE

DATA OUTPUT



1163-50A

- Non waterproof
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)

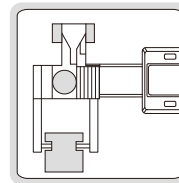


Part No.	Range	Accuracy	Resolution
1163-50A	0-2"/0-50mm	±.0015"	.0005"/0.01mm

DIGITAL 3-PURPOSE SNAP GAGE

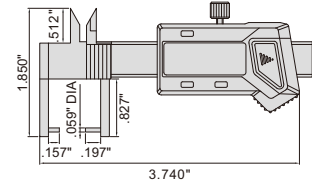
SUITABLE FOR JEWELLERY

ATTENTION: NO DATA OUTPUT



2164-25A

- Non waterproof
- Accuracy: ±.0015"
- Buttons: zero, inch/mm, on/off
- Battery LR44
- Made of stainless steel



Part No.	Range	Resolution
2164-25A	0-1"/0-25mm	.0005"/0.01mm

STEP AND GAP GAGE

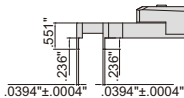
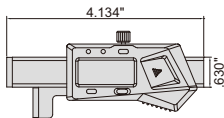
DATA OUTPUT



front

2168-12

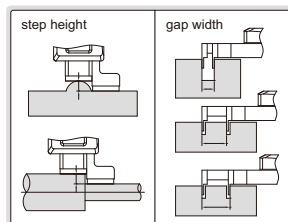
back



zero setting block (included)



- Non waterproof
- Measure step height and gap width
- Buttons: on/off, set, inch/mm, preset (+, -)
- 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 (part no. 7315-21, 7302-21)



Part No.	Range	Accuracy	Resolution
2168-12	0-.5"/0-12.7mm	±.0015"	.0005"/0.01mm

MINI DIGITAL HEIGHT GAGES

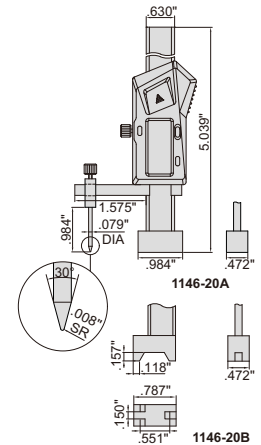
DATA OUTPUT



1146-20A

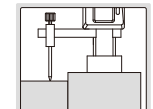


1146-20B

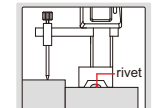


- Non waterproof
- Measure height difference of two surfaces (1146-20B suitable for surfaces with barrier, such as rivet)
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)

application of 1146-20A



application of 1146-20B



Part No.	Range	Accuracy
1146-20A	0-.8"/0-20mm	±.0010"
1146-20B	0-.8"/0-20mm	±.0010"

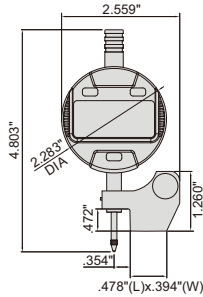
DIGITAL HEIGHT GAGES

DATA
OUTPUT

- Measure height difference of two surfaces
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/increment measurement
- Keep preset data in memory after restart
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M)



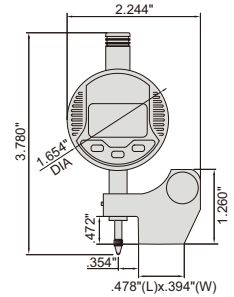
2146-4A



2146-4A
2146-41A

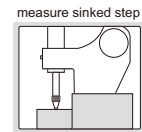


2146-4B



2146-4B
2146-41B

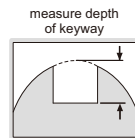
Part No.	Range (adjustable)	Digital indicator stroke	Digital indicator resolution	Accuracy
2146-4A	0~.16"/0~4mm (sunked)	.5"/12.7mm	.0005"/0.01mm	±.001"
2146-41A	0~.5"/0~12.7mm (raised)	.5"/12.7mm	.00005"/0.001mm	±.0002"
2146-4B	0~.16"/0~4mm (sunked)	.2"/5mm	.0005"/0.01mm	±.001"
2146-41B	0~.2"/0~5mm (raised)	.2"/5mm	.00005"/0.001mm	±.0002"



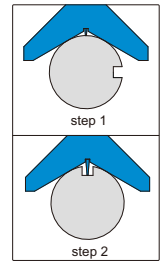
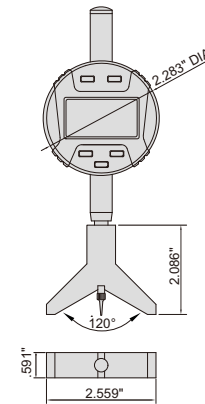
DIGITAL KEYWAY DEPTH GAGE

DATA
OUTPUT

- Measure keyway depth of cylindrical workpieces with .4"~4" DIA
- Button function: on/off, zero, inch/metric conversion, absolute/incremental measurement, data preset, measuring direction change
- CR2032 battery, data output
- Automatic power off (time is adjustable)
- Stainless steel base
- Pointed tip
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M)



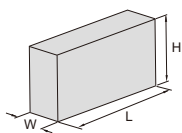
2182-25



Part No.	Range	Accuracy	Resolution
2182-25	0-1"/0-25.4mm	±.001"	.0005"/0.01mm

CERAMIC GAGE BLOCK SETS

INSPECTION
CERTIFICATE



Dimension:

Size (L)	W	H
.02 ≤ L ≤ .394"	.354"	1.181"
L > .394"	.354"	1.378"

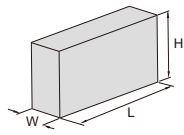


4005-181

- Made of ceramic, extremely wear resistance and corrosion resistance, excellent dimension stability
- Meet ASME B89.1.9
- Supplied with manufacturer inspection certificate

Blocks per set	Gage blocks included in set			Part No.	
	Size (inch)	Step (inch)	Quantity	Grade 0	Grade AS-1
36	.05		1	4005-36	4005-136
	.1001-.1009	.0001	9		
	.101-.109	.001	9		
	.11-.19	.01	9		
	.1-5	.1	5		
	1		1		
81	2		1	4005-81	4005-181
	4		1		
	.1001-.1009	.0001	9		
	.101-.149	.001	49		
	.05-.95	.05	19		
	1-4	1	4		

STEEL GAGE BLOCK SETS



Dimension:

Size (L)	W	H
.02 ≤ L ≤ .394"	.354"	1.181"
L > .394"	.354"	1.378"

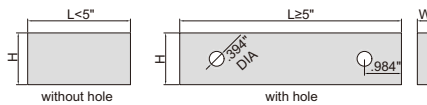


4102-81

- Made of alloy steel
- Meet ASME B89.1.9
- Supplied with manufacturer inspection certificate

Blocks per set	Gage blocks included in set			Part No.		
	Size (inch)	Step (inch)	Quantity	Grade 0	Grade AS-1	Grade AS-2
36	.05		1	4102-36	4102-136	4102-236
	.1001-.1009	.0001	9			
	.101-.109	.001	9			
	.11-.19	.01	9			
	.1-5	.1	5			
	1		1			
81	.1001-.1009	.0001	9	4102-81	4102-181	4102-281
	.101-.149	.001	49			
	.05-.95	.05	19			
	1-4	1	4			
	2		1			
	4		1			

STEEL INDIVIDUAL GAGE BLOCKS



- Grade AS-2
- Made of alloy steel
- Meet ASME B89.1.9
- Gage blocks with clamping holes: 5", 6", 7", 8", 10", 12", 16", 20"
- Supplied with manufacturer inspection certificate



CUSTOM-MADE
CAN SUPPLY ANY SIZES FROM .02" TO 40",
SUCH AS 3.876"



4112-C3

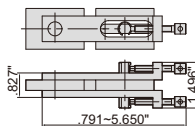
Dimension:

Size (L)	W	H
.02 ≤ L ≤ .394"	.354"	1.181"
L > .394"	.354"	1.378"

Part No.	Size (L)	Part No.	Size (L)	Part No.	Size (L)	Part No.	Size (L)	Part No.	Size (L)
4112-CD1	.1"	4112-CD109	.109"	4112-CD127	.127"	4112-CD145	.145"	4112-CD8	.8"
4112-CD1001	.1001"	4112-CD11	.11"	4112-CD128	.128"	4112-CD146	.146"	4112-CD85	.85"
4112-CD1002	.1002"	4112-CD111	.111"	4112-CD129	.129"	4112-CD147	.147"	4112-CD9	.9"
4112-CD1003	.1003"	4112-CD112	.112"	4112-CD13	.13"	4112-CD148	.148"	4112-CD95	.95"
4112-CD1004	.1004"	4112-CD113	.113"	4112-CD131	.131"	4112-CD149	.149"	4112-C1	1"
4112-CD1005	.1005"	4112-CD114	.114"	4112-CD132	.132"	4112-CD15	.15"	4112-C2	2"
4112-CD1006	.1006"	4112-CD115	.115"	4112-CD133	.133"	4112-CD2	.2"	4112-C3	3"
4112-CD1007	.1007"	4112-CD116	.116"	4112-CD134	.134"	4112-CD25	.25"	4112-C4	4"
4112-CD1008	.1008"	4112-CD117	.117"	4112-CD135	.135"	4112-CD3	.3"	4112-C5	5"
4112-CD1009	.1009"	4112-CD118	.118"	4112-CD136	.136"	4112-CD35	.35"	4112-C6	6"
4112-CD101	.101"	4112-CD119	.119"	4112-CD137	.137"	4112-CD4	.4"	4112-C7	7"
4112-CD102	.102"	4112-CD12	.12"	4112-CD138	.138"	4112-CD45	.45"	4112-C8	8"
4112-CD103	.103"	4112-CD121	.121"	4112-CD139	.139"	4112-CD5	.5"	4112-C10	10"
4112-CD104	.104"	4112-CD122	.122"	4112-CD14	.14"	4112-CD55	.55"	4112-C12	12"
4112-CD105	.105"	4112-CD123	.123"	4112-CD141	.141"	4112-CD6	.6"	4112-C16	16"
4112-CD106	.106"	4112-CD124	.124"	4112-CD142	.142"	4112-CD65	.65"	4112-C20	20"
4112-CD107	.107"	4112-CD125	.125"	4112-CD143	.143"	4112-CD7	.7"		
4112-CD108	.108"	4112-CD126	.126"	4112-CD144	.144"	4112-CD75	.75"		

GAGE BLOCK HOLDER

Part No.
6886-1



6886-1

- For gage blocks over 5" with clamping holes
- Optional accessory: gage block holder accessory, gage block accessory (part no. 6881)

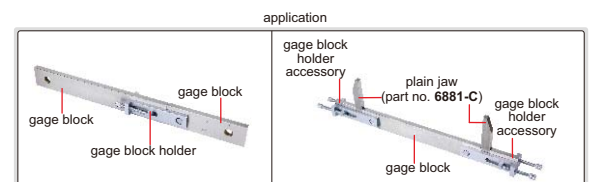


GAGE BLOCK HOLDER ACCESSORY

Part No.
6886-A



6886-A



PIN GAGE SETS



4162-2161

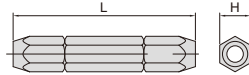
- Class ZZ
- Made of stainless steel
- Hardness HRC60-62
- Handle is optional (handle part no. 7341 series, 7342 series)

Diameter (d)	Step	Pin gages per set	Part No.	
			Accuracy + .0002"	Accuracy - .0002"
.011~.060"	.001"	50	4162-111	4162-211
.061~.250"	.001"	190	4162-1161	4162-2161
.251~.500"	.001"	250	4162-1251	4162-2251
.501~.625"	.001"	125	4162-1501	4162-2501
.626~.750"	.001"	125	4162-1626	4162-2626
.751~.832"	.001"	82	4162-1751	4162-2751
.833~.916"	.001"	84	4162-1833	4162-2833
.917~1.000"	.001"	84	4162-1917	4162-2917

PIN GAGE HANDLES (OPERATED WITHOUT WRENCH)



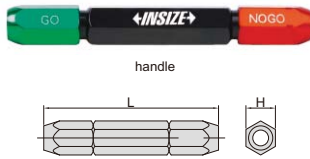
7342-M1



- Operated without wrench
- Made of aluminum
- Pin gages can be installed

Part No.	Applicable pin gage diameter	H	L
7342-M0	.011-.049"/0.3-1.25mm	.393"	4.409"
7342-M1	.050-.250"/1.26-6.35mm	.945"	5.157"
7342-M2	.251-.500"/6.36-12.70mm	1.260"	5.984"
7342-M3	.501-.625"/12.71-15.88mm	1.457"	5.984"
7342-M4	.626-.750"/15.89-19.00mm	1.457"	5.984"
7342-M5	.751-.832"/19.01-21.13mm	1.575"	6.220"
7342-M6	.833-.916"/21.14-23.27mm	1.575"	6.220"
7342-M7	.917-1.000"/23.28-25.4mm	1.575"	6.220"

PIN GAGE HANDLES (OPERATED WITH WRENCH)



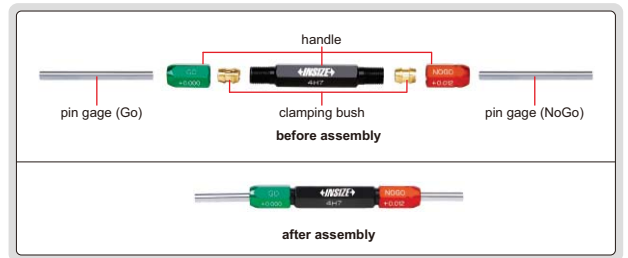
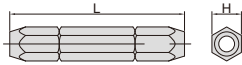
handle



brass clamping bush (.008~.281")



aluminum clamping bush (.281~.976")



- Wrench is needed to install pins
- Clamping bushes (.008~.281") are made of brass, clamping bushes (.281~.976") are made of aluminum

Part No.	Applicable pin gage diameter	Handle	Including		H	L
			Clamping bush			
7341-0S	.008-.040"	1 pc	6 pairs (the clamping range are .008-.015", .015-.020", .020-.025", .025-.030", .030-.035", .035-.040")		.276"	2.244"
7341-1S	.040-.075"	1 pc	7 pairs (the clamping range are .040-.045", .045-.050", .050-.055", .055-.060", .060-.065", .065-.070", .070-.075")		.276"	2.244"
7341-2S	.075-.131"	1 pc	8 pairs (the clamping range are .075-.082", .082-.089", .089-.096", .096-.103", .103-.110", .110-.117", .117-.124", .124-.131")		.354"	2.874"
7341-3S	.131-.180"	1 pc	7 pairs (the clamping range are .131-.138", .138-.145", .145-.152", .152-.159", .159-.166", .166-.173", .173-.180")		.354"	2.874"
7341-4S	.180-.228"	1 pc	6 pairs (the clamping range are .180-.188", .188-.196", .196-.204", .204-.212", .212-.220", .220-.228")		.551"	3.110"
7341-5S	.228-.281"	1 pc	6 pairs (the clamping range are .228-.236", .236-.244", .244-.252", .252-.261", .261-.271", .271-.281")		.551"	3.110"
7341-6S	.281-.341"	1 pc	6 pairs (the clamping range are .281-.291", .291-.301", .301-.311", .311-.321", .321-.331", .331-.341")		.748"	3.583"

Part No.	Applicable pin gage diameter	Handle	Including		H	L
			Clamping bush			
7341-7S	.341-.406"	1 pc	6 pairs (the clamping range are .341-.351", .351-.361", .361-.371", .371-.382", .382-.394", .394-.406")		.748"	3.583"
7341-8S	.406-.465"	1 pc	4 pairs (the clamping range are .406-.420", .420-.435", .435-.450", .450-.465")		.866"	4.173"
7341-9S	.465-.510"	1 pc	3 pairs (the clamping range are .465-.480", .480-.495", .495-.510")		.866"	4.173"
7341-10S	.510-.579"	1 pc	4 pairs (the clamping range are .510-.532", .532-.547", .547-.563", .563-.579")		.945"	4.528"
7341-11S	.579-.635"	1 pc	4 pairs (the clamping range are .579-.594", .594-.610", .610-.625", .625-.635")		.945"	4.528"
7341-12S	.635-.704"	1 pc	4 pairs (the clamping range are .635-.656", .656-.672", .672-.688", .688-.704")		1.063"	4.646"
7341-13S	.704-.760"	1 pc	4 pairs (the clamping range are .704-.719", .719-.735", .735-.750", .750-.760")		1.063"	4.646"
7341-15S	.760-.976"	1 pc	8 pairs (the clamping range are .760-.781", .781-.812", .812-.843", .843-.875", .875-.907", .907-.937", .937-.968", .968-.976")		1.063"	4.646"

ADJUSTABLE SNAP GAGES

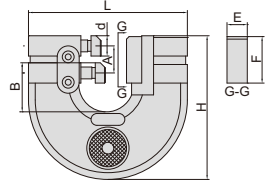
FAST AND ACCURATE MEASUREMENT OF CYLINDERS

- Used as Go/No-Go gage by setting upper and lower limits
- Flatness of anvil: 59µin
- Parallelism of measuring faces: 118µin

Part No.	Range	L	A	B	E	F	H	d (DIA)
2187-13	.24-.51"	3.346"	.591"	1.024"	.480"	1.071"	3.130"	.484"
2187-19	.51-.75"	3.661"	.591"	1.063"	.480"	1.071"	3.268"	.484"
2187-25	.75-.98"	3.937"	.591"	1.319"	.480"	1.071"	3.524"	.484"
2187-32	.98-1.26"	4.370"	.709"	1.516"	.598"	1.386"	4.094"	.602"



2187-19



SETTING RINGS

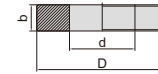
INSPECTION CERTIFICATE

CAN SUPPLY CUSTOM SETTING RINGS FROM 1/16" TO 16", FOR EXAMPLE, .6726"

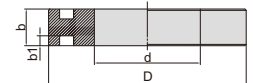
- Class X of ASME B89.1.6
- For zero setting of inside micrometers, three points internal micrometers and bore gages
- The size marked on the setting ring is checked at the direction of the marking line
- Size difference is the difference between the ordered size and the size marked on the setting ring when supplied. For example, the ordered size is .2", the size marked on the setting ring when supplied may be .20008"
- Supplied with manufacturer inspection certificate



6313-0D8



1.588-3.937" DIA



3.937-16" DIA

Diameter d *	b	D (DIA)	Size difference	Roundness and cylindricity
.059-.098"	.157"	.866"	±.00039"	.000012"
.098-.118"	.197"	.866"	±.00039"	.000012"
.118-.197"	.197"	.866"	±.00039"	.000016"
.197-.394"	.315"	1.260"	±.00039"	.000016"
.394-.591"	.394"	1.496"	±.00039"	.000020"
.591-.709"	.472"	1.772"	±.00039"	.000020"
.709-.787"	.472"	1.772"	±.00039"	.000024"
.787-.984"	.551"	2.087"	±.00039"	.000024"
.984-1.181"	.630"	2.480"	±.00039"	.000024"
1.181-1.260"	.630"	2.480"	±.00039"	.000028"
1.260-1.575"	.709"	2.795"	±.00039"	.000028"
1.575-1.969"	.787"	3.346"	±.00039"	.000028"
1.969-2.362"	.787"	3.937"	±.00039"	.000031"
2.362-2.756"	.945"	4.409"	±.00039"	.000031"
2.756-3.150"	.945"	4.921"	±.00039"	.000031"
3.150-3.543"	.945"	5.512"	±.00039"	.000039"
3.543-3.937"	.945"	6.300"	±.00039"	.000039"

Diameter d *	b	b1	D (DIA)	Size difference	Roundness and cylindricity
3.937-4.331"	1.181"	.315"	6.457"	±.00039"	.000039"
4.331-5.118"	1.339"	.394"	7.559"	±.00039"	.000039"
5.118-5.906"	1.339"	.394"	8.661"	±.00039"	.000047"
5.906-6.693"	1.417"	.394"	9.764"	±.00039"	.000059"
6.693-7.480"	1.417"	.394"	10.866"	±.00039"	.000059"
7.480-8.268"	1.496"	.394"	11.811"	±.00039"	.000059"
8.268-9.055"	1.496"	.394"	12.756"	±.00039"	.000098"
9.055-9.843"	1.575"	.472"	13.780"	±.00039"	.000098"
9.843-10.630"	1.575"	.472"	14.764"	±.00039"	.000118"
10.630-11.417"	1.654"	.472"	15.748"	±.00039"	.000118"
11.417-11.811"	1.654"	.472"	16.732"	±.00039"	.000118"
11.811-12.598"	1.654"	.472"	16.929"	±.00039"	.000157"
12.598-12.992"	1.654"	.472"	17.323"	±.00039"	.000157"
12.992-13.386"	1.654"	.472"	17.717"	±.00039"	.000157"
13.386-13.780"	1.654"	.472"	18.110"	±.00039"	.000157"
13.780-14.173"	1.654"	.472"	18.504"	±.00039"	.000157"
14.173-14.567"	1.654"	.472"	18.898"	±.00039"	.000157"
14.567-14.961"	1.654"	.472"	19.291"	±.00039"	.000157"
14.961-15.354"	1.654"	.472"	19.685"	±.00039"	.000157"
15.354-16"	1.654"	.472"	20.079"	±.00039"	.000157"

*For example .709-.787" means .709" DIA < diameters < .787" DIA

Part No.	Diameter
6313-1H16	1/16" DIA
6313-3H32	3/32" DIA
6313-1H8	1/8" DIA
6313-5H32	5/32" DIA
6313-3H16	3/16" DIA
6313-7H32	7/32" DIA
6313-1H4	1/4" DIA
6313-9H32	9/32" DIA
6313-5H16	5/16" DIA
6313-11H32	11/32" DIA
6313-3H8	3/8" DIA
6313-13H32	13/32" DIA
6313-7H16	7/16" DIA
6313-15H32	15/32" DIA
6313-1H2	1/2" DIA

Part No.	Diameter
6313-17H32	17/32" DIA
6313-9H16	9/16" DIA
6313-19H32	19/32" DIA
6313-5H8	5/8" DIA
6313-21H32	21/32" DIA
6313-11H16	11/16" DIA
6313-23H32	23/32" DIA
6313-3H4	3/4" DIA
6313-25H32	25/32" DIA
6313-13H16	13/16" DIA
6313-27H32	27/32" DIA
6313-7H8	7/8" DIA
6313-29H32	29/32" DIA
6313-15H16	15/16" DIA
6313-31H32	31/32" DIA

Part No.	Diameter
6313-0D1	.1" DIA
6313-0D16	.16" DIA
6313-0D24	.24" DIA
6313-0D275	.275" DIA
6313-0D35	.35" DIA
6313-0D425	.425" DIA
6313-0D6	.6" DIA
6313-0D65	.65" DIA
6313-0D7	.7" DIA
6313-0D8	.8" DIA
6313-1	1.0" DIA
6313-1D2	1.2" DIA
6313-1D4	1.4" DIA
6313-1D6	1.6" DIA
6313-1D8	1.8" DIA

Part No.	Diameter
6313-2	2.0" DIA
6313-2D4	2.4" DIA
6313-2D5	2.5" DIA
6313-2D8	2.8" DIA
6313-3	3.0" DIA
6313-3D2	3.2" DIA
6313-3D5	3.5" DIA
6313-3D6	3.6" DIA
6313-4	4.0" DIA
6313-4D5	4.5" DIA
6313-5	5.0" DIA
6313-5D5	5.5" DIA
6313-6	6.0" DIA
6313-6D5	6.5" DIA
6313-7	7.0" DIA

Part No.	Diameter
6313-7D5	7.5" DIA
6313-8	8.0" DIA
6313-8D5	8.5" DIA
6313-9	9.0" DIA
6313-9D5	9.5" DIA
6313-10	10.0" DIA
6313-10D5	10.5" DIA
6313-11	11.0" DIA
6313-11D5	11.5" DIA
6313-12	12.0" DIA
6313-14	14.0" DIA
6313-16	16.0" DIA

CERAMIC MEASURING BALLS



4190-15H16

- Zirconia material, high strength and hardness, extremely wear resistance and corrosion resistance, good insulation, antistatic and magnetic resistance
- Mirror surface without holes
- Supplied with manufacturer inspection certificate

Set (31 pairs)

Part No.	Ceramic balls included (one pair per size)
4190-S25E	1/16", 3/32", 7/64", 1/8", 5/32", 3/16", 7/32", 15/64", 1/4", 17/64", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 29/64", 15/32", 31/64", 1/2", 17/32", 9/16", 19/32", 5/8", 21/32", 11/16", 23/32", 3/4", 25/32", 7/8", 15/16"

Individual

Part No.	Diameter	Accuracy	Roundness
4190-1H16	1/16"	±.00008"	.00002"
4190-3H32	3/32"	±.00008"	.00002"
4190-7H64	7/64"	±.00008"	.00002"
4190-1H8	1/8"	±.00008"	.00002"
4190-5H32	5/32"	±.00008"	.00002"
4190-3H16	3/16"	±.00008"	.00002"
4190-7H32	7/32"	±.00008"	.00002"
4190-15H64	15/64"	±.00008"	.00002"
4190-1H4	1/4"	±.00008"	.00002"
4190-17H64	17/64"	±.00008"	.00002"
4190-9H32	9/32"	±.00008"	.00002"
4190-5H16	5/16"	±.00008"	.00002"
4190-11H32	11/32"	±.00008"	.00002"
4190-3H8	3/8"	±.00008"	.00002"
4190-13H32	13/32"	±.00008"	.00002"
4190-7H16	7/16"	±.00008"	.00002"

Individual

Part No.	Diameter	Accuracy	Roundness
4190-29H64	29/64"	±.00008"	.00002"
4190-15H32	15/32"	±.00008"	.00002"
4190-31H64	31/64"	±.00008"	.00002"
4190-1H2	1/2"	±.00008"	.00002"
4190-17H32	17/32"	±.00008"	.00003"
4190-9H16	9/16"	±.00008"	.00003"
4190-19H32	19/32"	±.00010"	.00003"
4190-5H8	5/8"	±.00010"	.00003"
4190-21H32	21/32"	±.00010"	.00003"
4190-11H16	11/16"	±.00010"	.00003"
4190-23H32	23/32"	±.00010"	.00003"
4190-3H4	3/4"	±.00010"	.00003"
4190-25H32	25/32"	±.00010"	.00003"
4190-7H8	7/8"	±.00010"	.00004"
4190-15H16	15/16"	±.00010"	.00004"

METRIC THREAD PLUG GAGES



WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES



4130-10

- Supplied with Go and No-Go end
- Class 6H
- Standard ISO1502
- Supplied with manufacturer inspection certificate

Part No.	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
4130-6	M6x1
4130-7	M7x1
4130-8	M8x1.25
4130-9	M9x1.25

Part No.	Size (mm)
4130-10	M10x1.5
4130-11	M11x1.5
4130-12	M12x1.75
4130-14	M14x2
4130-16	M16x2
4130-18	M18x2.5
4130-20	M20x2.5
4130-22	M22x2.5
4130-24	M24x3
4130-27	M27x3
4130-30	M30x3.5

Part No.	Size (mm)
4130-39	M39x4
4130-42	M42x4.5
4130-45	M45x4.5
4130-48	M48x5
4130-52	M52x5
4130-56	M56x5.5
4130-60	M60x5.5
4130-33	M33x3.5
4130-36	M36x4

METRIC THREAD RING GAGES



WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES

- Go and No-Go gages are supplied separately
- Class 6g
- Standard ISO1502
- Supplied with manufacturer inspection certificate



4120-16



4120-16N

Part No. (GO)	Part No. (NOGO)	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

Part No. (GO)	Part No. (NOGO)	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

Part No. (GO)	Part No. (NOGO)	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

AMERICAN STANDARD THREAD PLUG GAGES

WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES



4131-102

- Supplied with Go and No-Go gages together
- Standard ANSI/ASME B1.2
- Class 2B
- Supplied with manufacturer inspection certificate

Part No.	Size	Part No.	Size	Part No.	Size
4131-41	4-40UNC	4131-5D1	5/16-18UNC	4131-1A2	1/2-20UNF
4131-61	6-32UNC	4131-5D2	5/16-24UNF	4131-9D2	9/16-18UNF
4131-81	8-32UNC	4131-3C1	3/8-16UNC	4131-5C1	5/8-11UNC
4131-102	10-32UNF	4131-3C2	3/8-24UNF	4131-5C2	5/8-18UNF
4131-1B1	1/4-20UNC	4131-7D2	7/16-20UNF	4131-3B1	3/4-10UNC
4131-1B2	1/4-28UNF	4131-1A1	1/2-13UNC	4131-3B2	3/4-16UNF

AMERICAN STANDARD THREAD RING GAGES

WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES



- Class 2A
- Standard ANSI/ASME B1.2
- Supplied with manufacturer inspection certificate



front



back



front



back

4121-1B1

4121-1B1N

Size	Part No. (GO)	Part No. (NOGO)	Size	Part No. (GO)	Part No. (NOGO)	Size	Part No. (GO)	Part No. (NOGO)
4-40UNC	4121-41	4121-41N	5/16-18UNC	4121-5D1	4121-5D1N	1/2-20UNF	4121-12	4121-1A2
6-32UNC	4121-61	4121-61N	5/16-24UNF	4121-5D2	4121-5D2N	9/16-18UNF	4121-9D2	4121-9D2
8-32UNC	4121-81	4121-81N	3/8-16UNC	4121-3C1	4121-3C1N	5/8-11UNC	4121-5C1	4121-5C1
10-32UNF	4121-102	4121-102N	3/8-24UNF	4121-3C2	4121-3C2N	5/8-18UNF	4121-5C2	4121-5C2
1/4-20UNC	4121-1B1	4121-1B1N	7/16-20UNF	4121-7D2	4121-7D2N	3/4-10UNC	4121-3B1	4121-3B1
1/4-28UNF	4121-1B2	4121-1B2N	1/2-13UNC	4121-1A1	4121-1A1N	3/4-16UNF	4121-3B2	4121-3B2

WATERPROOF DIGITAL PROTRACTOR (HEAVY DUTY)

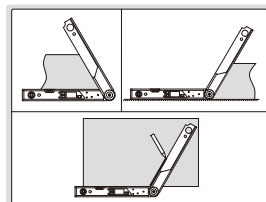
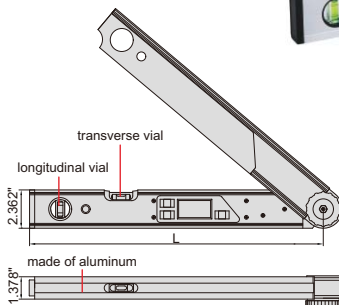
AUTOMATIC BACKLIGHT

ABSOLUTE LEVEL

IP54 WATERPROOF



2174-225



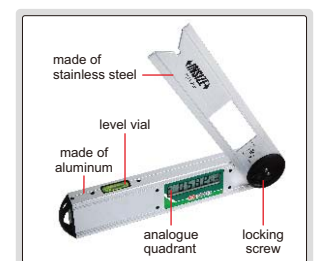
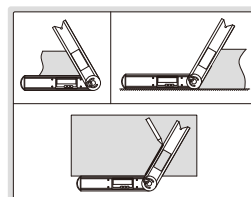
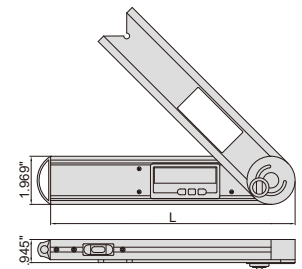
- Suitable for setting horizontal and vertical mitre angles of cutting machine
- Buttons: ON/OFF, HOLD/SUP, SPR/CNR/MTR/BVL
- IP54 dust/waterproof
- With transverse and longitudinal vials
- 2xAAA batteries
- Absolute level, zero setting is not needed when batteries are replaced
- Backlight turns off in one minute after no data changing, automatic power off in 5 minutes

Part No.	Size (L)	Range	Resolution	Accuracy
2174-225	18.11"	0-225°	0.05°	±0.10°

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

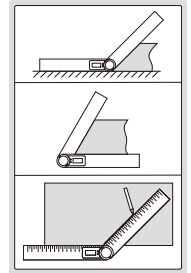
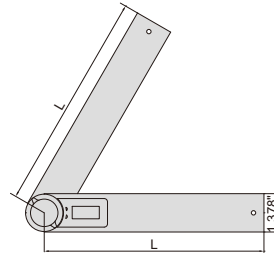
Part No.	Size (L)	Range	Resolution	Accuracy
2171-250	10"	0-360°	0.05°	±0.15°

DIGITAL PROTRACTORS

- Resolution: 0.1°
- Buttons: on/off, zero
- With clamping screw to lock the blades
- Graduation of blade: 1/32" and 1mm
- Made of stainless steel
- CR2032 battery, automatic power off



2176-200

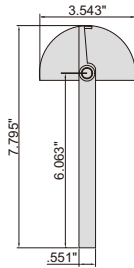


Part No.	Size (L)	Range	Accuracy
2176-200	8"	0-360°	±0.3°
2176-300	12"	0-360°	±0.3°

PROTRACTOR (ECONOMIC TYPE)



4780-85A



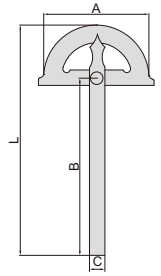
- Made of stainless steel
- With clamping screw

Part No.	Size	Range	Graduation	Accuracy
4780-85A	3.543x6.063"	0-180°	1°	±0.5°

PROTRACTORS



4799-180



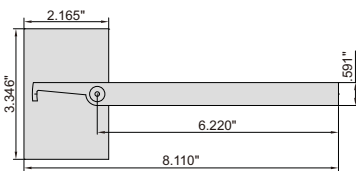
- Graduation 1°
- Made of stainless steel
- Satin chrome plated scale
- With clamping screw

Part No.	Size (AxB)	Range	Accuracy	L	C
4799-180	3.1x4.7"	0-180°	±0.3°	6.614"	.433"
4799-1120	4.7x5.9"	0-180°	±0.3°	8.661"	.551"
4799-1150	5.9x7.9"	0-180°	±0.3°	11.220"	.630"
4799-1200	7.9x11.8"	0-180°	±0.3°	16.260"	.787"

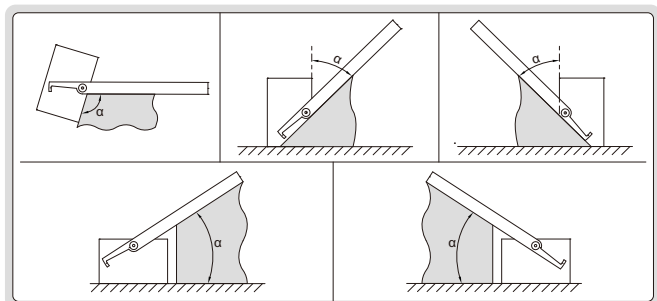
PROTRACTOR



4781-85A



- Made of stainless steel
- Satin chrome plated scale
- With clamping screw

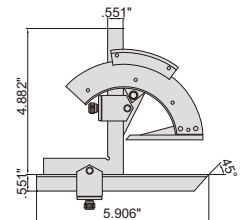


Part No.	Size	Range	Graduation	Accuracy
4781-85A	3.346x6.220"	0-180°	1°	±0.3°

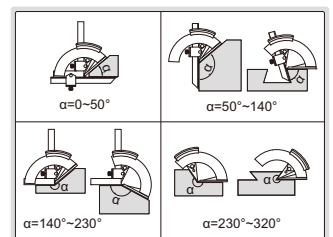
PROTRACTOR



2374-320

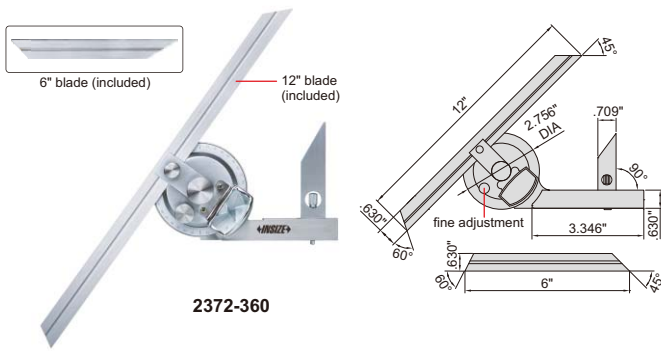


- Graduation: 2'
- Made of stainless steel
- Satin chrome plated scale



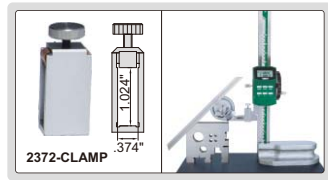
Part No.	Range	Accuracy
2374-320	0-320°	±2'

UNIVERSAL PROTRACTOR



2372-360

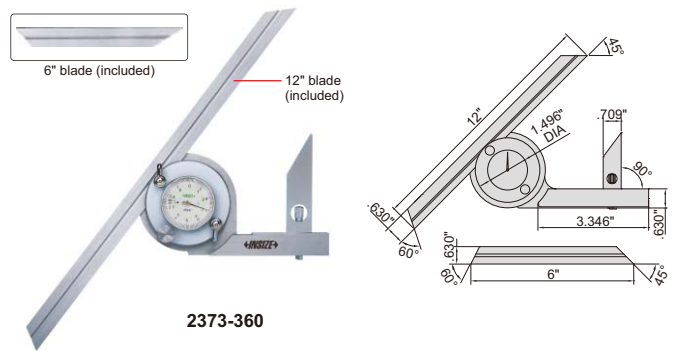
clamp for height gages (optional)



- Parallax-free reading
- Made of stainless steel
- Optional accessory: clamp (part no. 2372-CLAMP), suitable for height gages 1156, 1150-300, 1351, 1250 and 1151

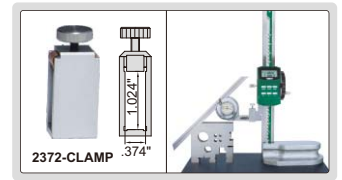
Part No.	Range	Graduation	Accuracy
2372-360	0-360°	5'	±5'

DIAL PROTRACTOR



2373-360

clamp for height gages (optional)



- Made of stainless steel
- Optional accessory: clamp (part no. 2372-CLAMP), suitable for height gages 1156, 1150-300, 1351, 1250 and 1151

Part No.	Range	Graduation	Accuracy
2373-360	0-360°	5'	±5'

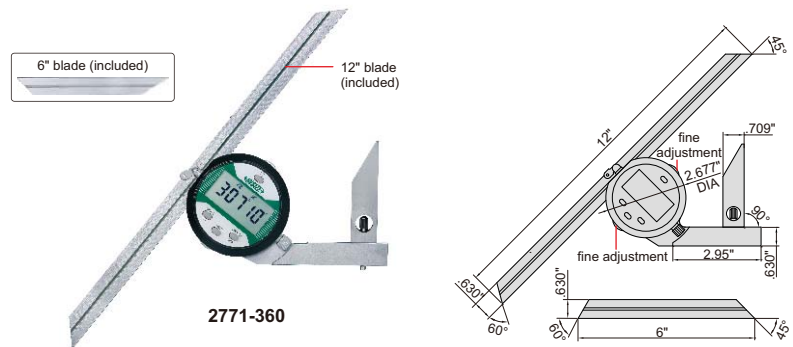
DIGITAL PROTRACTOR (BASIC TYPE)

POPULAR MODEL

ABSOLUTE ZERO

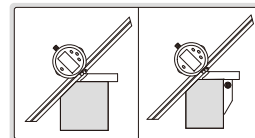
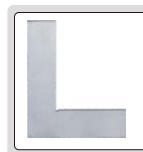
DATA OUTPUT

- Absolute zero, zero setting is not needed when batteries are replaced
- Button function: choose 0-90°, 0-180° or 0-360° display, change resolution, display flips over, data hold, zero, on/off, supplementary angle measurement
- Battery CR2032, automatic power off, data output
- Made of stainless steel
- Optional square for zero setting
- Optional accessory: clamp (part no. 2372-CLAMP), suitable for height gages 1156, 1150-300, 1351, 1250 and 1151, data output cable (part no. 7315-2771, 7302-50M)

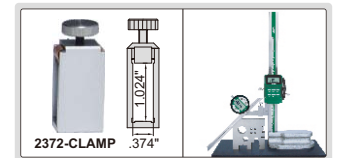


2771-360

square (optional)



clamp for height gages (optional)

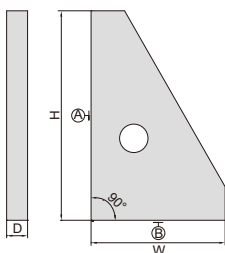


Part No.	Range	Resolution	Accuracy
2771-360	0-360°	1/0.01°	±5'

Square (for zero setting, optional)

Part No.
2771-S90

GRANITE SQUARES



4141-250

CUSTOM-MADE
SUPPLY SPECIAL SIZES ACCORDING
TO CUSTOMER'S REQUEST

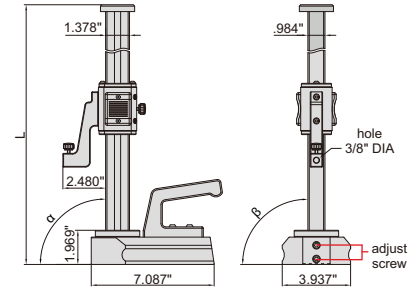
Part No.	Size (HxW)	Flatness of A	Flatness of B	Squareness of A to B	D
4141-250	9.8x6.3"	39µin	39µin	79µin	.984"
4141-400	15.7x9.8"	59µin	39µin	118µin	1.575"
4141-630	24.8x15.7"	79µin	59µin	157µin	2.480"

PERPENDICULARITY TESTERS



- Optional accessory: dial test indicators (graduation .0001")

Part No.	Range (H)	Perpendicularity (α)	Side perpendicularity (β)	L
4770-300E	0-12"	.00012"	.00040"	18.110"
4770-600E	0-24"	.00020"	.00080"	29.921"



90° BEVELED EDGE SQUARES

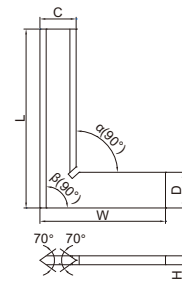
- Satin chrome plating
- Beveled edges for inside and outside measurement
- Made of hardened stainless steel

DIN875 grade 00

Part No.	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-050	2.0x1.6"	.00009"	.00010"	.512"	.512"	.157"
4790-075	3.0x2.0"	.00010"	.00011"	.591"	.591"	.157"
4790-0100	3.9x2.8"	.00011"	.00012"	.787"	.787"	.197"
4790-0150	5.9x3.9"	.00013"	.00014"	1.181"	1.181"	.236"
4790-0200	7.9x5.1"	.00015"	.00016"	1.339"	1.339"	.276"
4790-0250	9.8x6.5"	.00017"	.00018"	1.378"	1.378"	.276"
4790-0300	11.8x7.9"	.00018"	.00020"	1.575"	1.575"	.315"



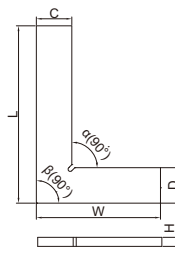
4790-0100



90° FLAT EDGE SQUARES



4791-100



- Made of hardened stainless steel

DIN875 grade 0

Part No.	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-50	2.0x1.6"	.00024"	.00024"	.591"	.591"	.157"
4791-75	3.0x2.0"	.00024"	.00028"	.591"	.591"	.157"
4791-100	3.9x2.8"	.00028"	.00028"	.787"	.787"	.197"
4791-150	5.9x3.9"	.00028"	.00032"	1.181"	1.181"	.236"
4791-200	7.9x5.1"	.00032"	.00035"	1.181"	1.181"	.276"
4791-250	9.8x6.5"	.00035"	.00040"	1.378"	1.378"	.276"
4791-300	11.8x7.9"	.00040"	.00043"	1.575"	1.575"	.315"

DIN875 grade 1

Part No.	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-501	2.0x1.6"	.00047"	.00051"	.591"	.591"	.157"
4791-751	3.0x2.0"	.00051"	.00056"	.591"	.591"	.157"
4791-1001	3.9x2.8"	.00056"	.00060"	.787"	.787"	.197"
4791-1501	5.9x3.9"	.00063"	.00071"	1.181"	1.181"	.236"
4791-2001	7.9x5.1"	.00075"	.00079"	1.181"	1.181"	.236"
4791-2501	9.8x6.5"	.00083"	.00091"	1.378"	1.378"	.276"
4791-3001	11.8x7.9"	.00091"	.00099"	1.575"	1.575"	.315"

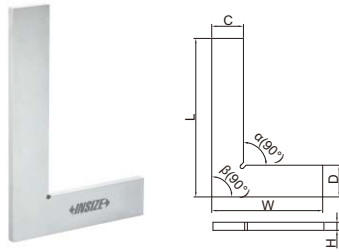
DIN875 grade 2

Part No.	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-502	2.0x1.6"	.00095"	.00098"	.591"	.591"	.157"
4791-752	3.0x2.0"	.00102"	.00110"	.591"	.591"	.157"
4791-1002	3.9x2.8"	.00110"	.00118"	.787"	.787"	.197"
4791-1502	5.9x3.9"	.00130"	.00138"	1.181"	1.181"	.236"
4791-2002	7.9x5.1"	.00150"	.00157"	1.181"	1.181"	.236"
4791-2502	9.8x6.5"	.00170"	.00177"	1.378"	1.378"	.276"
4791-3002	11.8x7.9"	.00185"	.00197"	1.575"	1.575"	.315"

MACHINIST SQUARES (ECONOMIC TYPE)

ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDEND

ATTENTION: LOW ACCURACY



4796-150

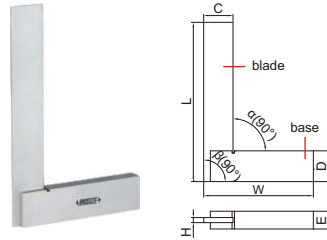
- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardend

Part No.	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4796-50	2x1.2"	.00095"	.00098"	.472"	.472"	.118"
4796-75	3x2"	.00102"	.00110"	.630"	.630"	.118"
4796-100	4x2.8"	.00110"	.00118"	.748"	.748"	.197"
4796-125	5x3.2"	.00118"	.00130"	.866"	.866"	.197"
4796-150	6x4"	.00130"	.00138"	.984"	.984"	.236"
4796-200	8x5.2"	.00150"	.00157"	.984"	.984"	.236"
4796-250	10x6.6"	.00170"	.00177"	.984"	.984"	.236"
4796-300	12x8"	.00185"	.00197"	1.181"	1.181"	.236"
4796-350	14x8"	.00200"	.00217"	1.496"	1.496"	.236"
4796-400	16x8"	.00220"	.00236"	1.496"	1.496"	.354"
4796-450	18x10"	.00228"	.00256"	1.496"	1.496"	.354"
4796-500	20x12"	.00272"	.00276"	1.496"	1.496"	.354"

MACHINIST SQUARES WITH WIDE BASE (ECONOMIC TYPE)

ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDENED

POPULAR MODEL



4707-100

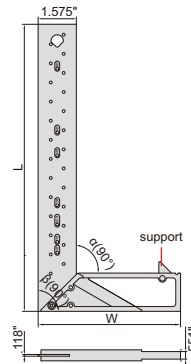
- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardened

Part No.	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4707-75	3.0x2.0"	.00102"	.00110"	.630"	.630"	.118"	.354"
4707-100	3.9x2.8"	.00110"	.00118"	.748"	.748"	.118"	.472"
4707-150	6x4"	.00130"	.00138"	.984"	.984"	.118"	.630"
4707-200	8x5"	.00146"	.00158"	1.181"	1.260"	.157"	.630"
4707-250	10x6"	.00165"	.00177"	1.181"	1.260"	.157"	.748"
4707-300	12x8"	.00185"	.00197"	1.260"	1.260"	.157"	.748"
4707-400	16x10"	.00221"	.00236"	1.496"	1.496"	.197"	.866"
4707-500	20x12"	.00256"	.00276"	1.772"	1.969"	.236"	.984"
4707-600	24x14"	.00295"	.00315"	1.969"	1.969"	.236"	1.181"

TRY SQUARE



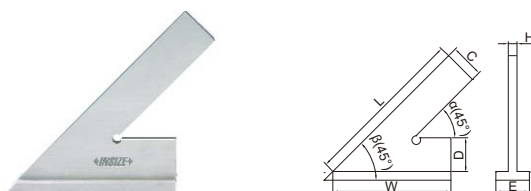
2280-300



- Graduation: 1mm
- Aluminum blade and base
- 4 milled surfaces
- Retractable metal ledge support
- Etchings and holes for beveling and framing: 10°, 15°, 22.5°, 30°, 45°, 50° and 60°
- Etchings and holes every cm for fluid pencil marking

Part No.	Size (LxW)	Squareness	
		Inside (α)	Outside (β)
2280-300	11.8x5.9"	.020"	.020"

45° SQUARES WITH WIDE BASE



4747-150

- Made of hardened stainless steel

Part No.	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4747-150	5.9x3.9"	.00126"	.00142"	.787"	.787"	.197"	.787"
4747-200	7.9x5.1"	.00148"	.00161"	.984"	.984"	.197"	.984"

STRAIGHT EDGES



4700-100



- DIN874
- Satin chrome plating
- Beveled edge
- Made of hardened stainless steel

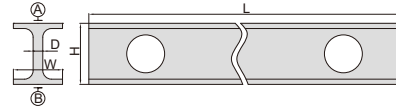
Part No.	Size (L)	Straightness	W	H
4700-100	3.9"	.00010"	.197"	.984"
4700-150	5.9"	.00010"	.236"	1.181"
4700-200	7.9"	.00011"	.236"	1.181"
4700-300	11.8"	.00013"	.315"	1.575"

MAGNALIUM STRAIGHT EDGES

LIGHT WEIGHT



4180-1500



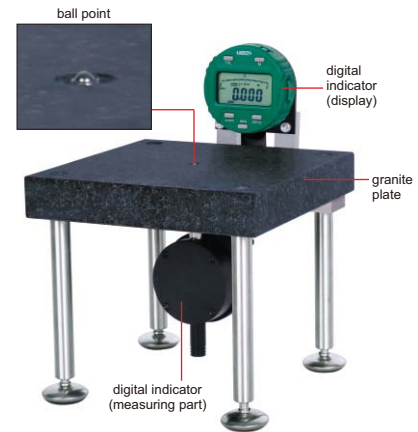
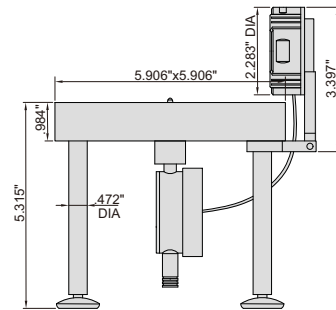
- Made of magnalium, light weight, non-deform, no rusty

Part No.	Length (L)	Flatness of A and B	Parallelism between A and B	H	W	D	Weight (lb)
4180-500	20"	.00012"	.00016"	2.362"	1.181"	.197"	2.20
4180-1000	40"	.00020"	.00032"	2.362"	1.181"	.197"	3.31
4180-1500	60"	.00060"	.00087"	3.937"	1.575"	.276"	9.92
4180-2000	80"	.00071"	.00106"	3.937"	1.575"	.276"	13.23

FLATNESS MEASUREMENT STAND

GRANITE PLATE CAN BE CUSTOMIZED ACCORDING TO WORKPIECES

DATA OUTPUT



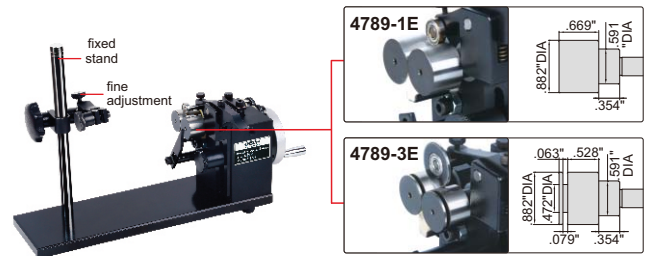
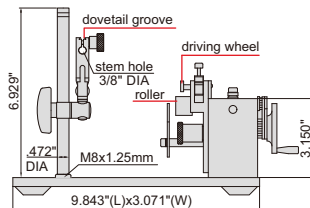
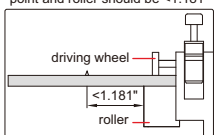
6852-150

- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M)

Part No.	Digital indicator resolution	Flatness measurement accuracy	Flatness of granite plate
6852-150	.00005"/0.001mm	79µin	79µin

CONCENTRICITY GAGES

to ensure the accuracy .00008", the distance between measuring point and roller should be <1.181"



- Optional accessory: dial test indicator

Part No.	Accuracy	Applicable diameter	Remark
4789-1E	.00008"	.138" DIA~.984" DIA	fixed stand, high accuracy, inconvenient operation
4789-3E	.00008"	.039" DIA~.984" DIA	fixed stand, high accuracy, inconvenient operation

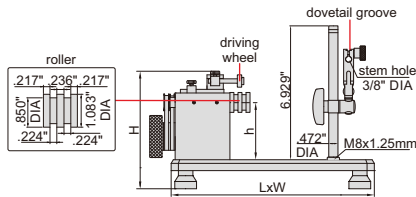
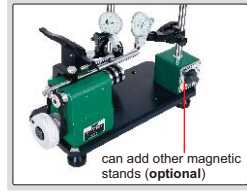
CONCENTRICITY GAGE

HIGH STABILITY,
LONG WORKING LIFE

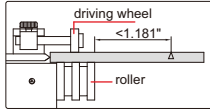
dial test indicator is optional



4725-45E



to ensure the accuracy .00008", the distance between measuring point and roller should be <1.181"



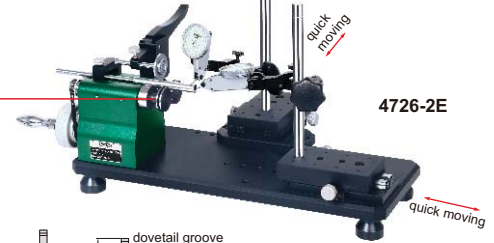
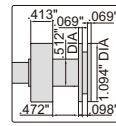
- With ball bearing, high stability, long working life
- Diameter range .118~1.772"
- Accuracy .00008"
- Optional accessory: dial test indicator

Part No.	Center height (h)	LxWxH	Weight
4725-45E	3.150"	11.024x5.906x6.693"	13.23lb

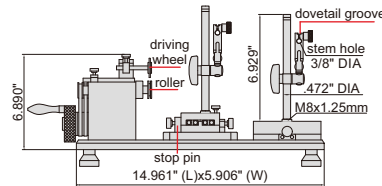
CONCENTRICITY GAGE

QUICK-POSITIONING, SUITABLE
FOR MASS MEASUREMENT

dial test indicator is optional

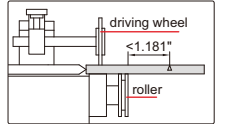


4726-2E



- With ball bearing, high stability, long working life
- Accuracy .00008"
- Optional accessory: dial test indicator

to ensure the accuracy .00008", the distance between measuring point and roller should be <1.181"



Part No.	Applicable diameter
4726-2E	.079" DIA~1.575" DIA

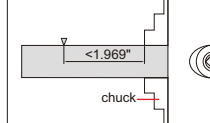
CONCENTRICITY GAGE

to ensure the accuracy .00012", the distance between measuring point and roller should be <1.969"

for cylinder



for tube

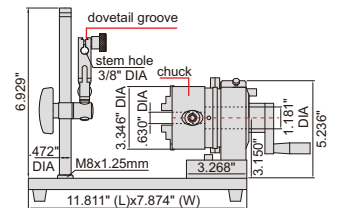


- Accuracy .00012"
- 1.969" DIA setting ring and 2.165" DIA calibration cylinder are included
- Optional accessory: dial test indicator

Part No.	Applicable inside diameter	Applicable outside diameter
4786-1E	.945" DIA~2.520" DIA	.079" DIA~2.756" DIA



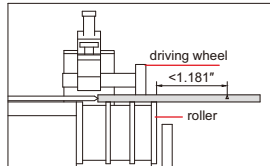
4786-1E



QUICK POSITIONING CONCENTRICITY GAGES

QUICK-POSITIONING, SUITABLE
FOR MASS MEASUREMENT

to ensure the accuracy .00008", the distance between measuring point and roller should be <1.181"



standard rod (included)



dial test indicator is optional



4737-25E

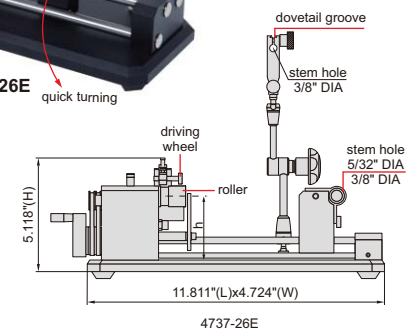
dial test indicator is optional



4737-26E

- Accuracy .00008"
- Quick positioning, suitable for mass measurement
- Supplied with standard rod to verify accuracy
- Optional accessory: dial test indicators

Part No.	Diameter range	Workpiece length	Center height (h)	LxWxH	Weight	Remark
4737-25E	.118"-.981"	.591"-3.937"	2.756"	11.811"x4.724"x5.118"	6lb	fixed stand, high accuracy, inconvenient operation
4737-26E	.118"-.981"	.591"-3.937"	2.756"	11.811"x4.724"x5.118"	6lb	universal stand, low accuracy, convenient operation



4737-26E

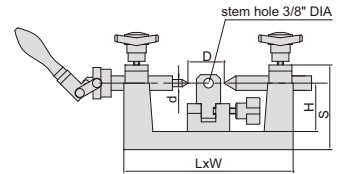
MINI BENCH CENTER

- Distance between two centers (D): 1.378"~3.937"
- Diameter of center (d) .236" DIA
- Taper of center: MT1

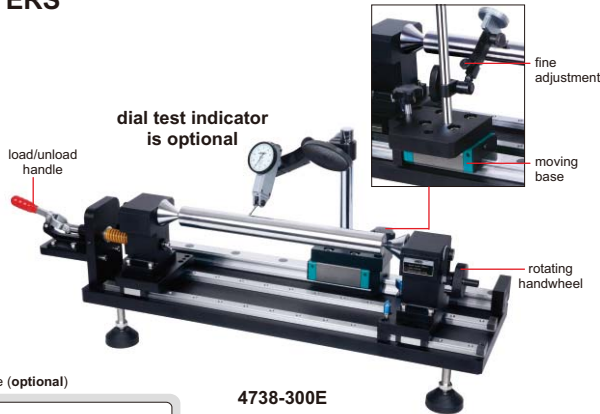
Part No.	Runout accuracy	Center height (H)	Size (LxWxS)	Weight	Load
4721-75AE	.00008"	1.575"	6.890x4.685x2.756"	9.93lb	8.8lb



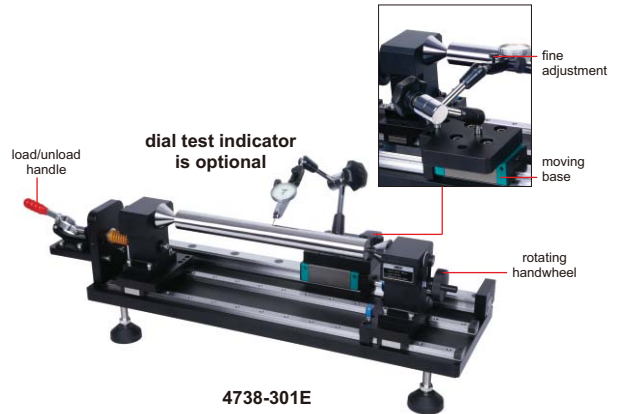
4721-75AE



BENCH CENTERS



4738-300E



4738-301E



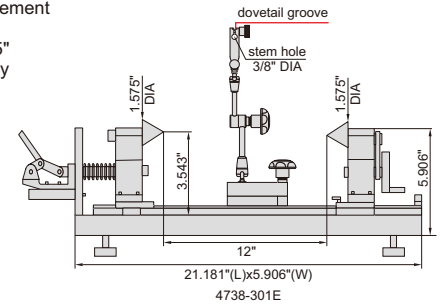
dual base (optional)



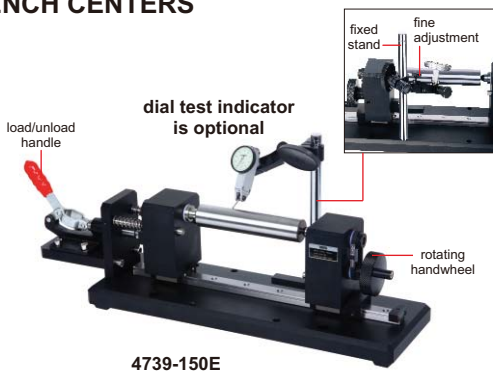
standard rod (included)

- Quick positioning, suitable for mass measurement
- Suitable for cylinders with outside diameter .118"~7.087" or inside diameter .039"~1.575"
- Supplied with standard rod to verify accuracy
- Optional accessory: dial test indicators

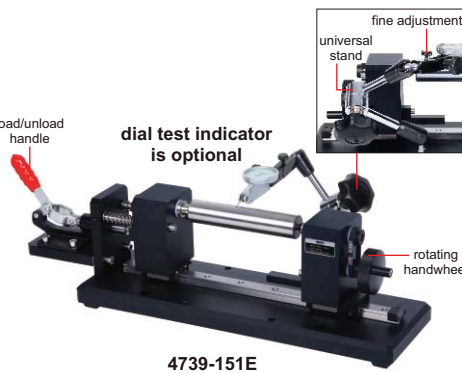
Part No.	Center height	Distance between two centers	Runout accuracy	Weight	Load	Remark
4738-300E	3.543"	12"	.00008"	33lb	44lb	fixed stand, high accuracy, inconvenient operation
4738-301E	3.543"	12"	.00008"	33lb	44lb	universal stand, low accuracy, convenient operation



BENCH CENTERS



4739-150E



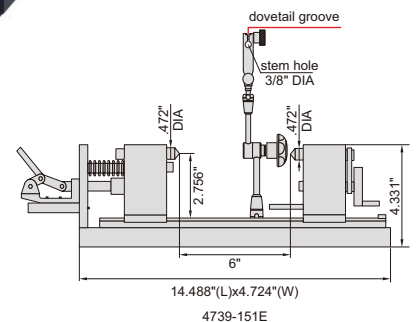
4739-151E



standard rod (included)

- Quick positioning, suitable for mass measurement
- Suitable for cylinders with outside diameter .118"~5.512" or inside diameter .039"~.472"
- Supplied with standard rod to verify accuracy
- Optional accessory: dial test indicators

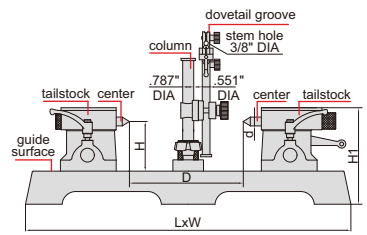
Part No.	Center height	Distance between two centers	Runout accuracy	Weight	Load	Remark
4739-150E	2.756"	6"	.00008"	14lb	33lb	fixed stand, high accuracy, inconvenient operation
4739-151E	2.756"	6"	.00008"	14lb	33lb	universal stand, low accuracy, convenient operation



BENCH CENTERS



4788-D3E



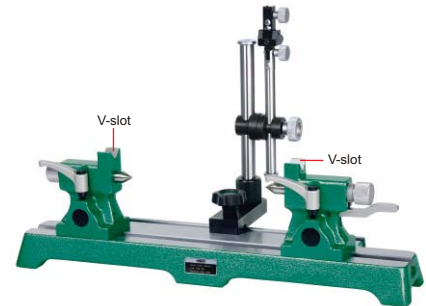
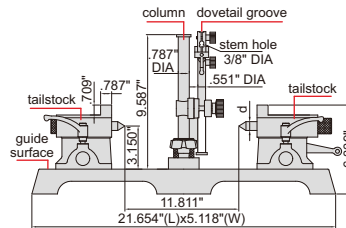
- Movable column
- Optional accessory: umbrella center, rotary center

Part No.	Parallelism *	Runout accuracy	Center height (H)	Distance between two centers (D)	L	W	H1	Diameter of center (d)	Taper of center	Weight	Load
4788-D3E	.0004"	.00012"	3.543"	11.811"	23.228"	7.677"	6.890"	.787" DIA	MT2	79.4lb	55lb
4788-D4E	.0005"	.00012"	5.118"	15.748"	28.740"	8.071"	9.488"	1.102" DIA	MT3	150lb	132lb
4788-D6E	.0006"	.00012"	5.118"	23.622"	36.614"	8.661"	9.843"	1.102" DIA	MT3	200.8lb	132lb

*Parallelism of two centers to the guide surface

BENCH CENTER (BASIC TYPE)

- Runout accuracy .00008"
- Center height: 3.150"
- Distance between two centers: 11.811"
- Hardened cast-iron guide surface
- Movable column
- V-slot for cylinder .157" DIA-.866" DIA

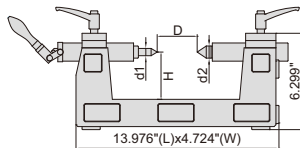


4782-300E

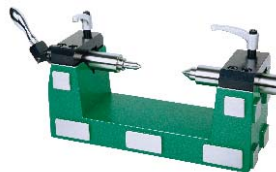
Part No.	Parallelism *	Diameter of center (d)	Load
4782-300E	.0004"	.630" DIA	55lb

*Parallelism of two centers to the guide surface

VERTICAL AND HORIZONTAL BENCH CENTER



- For vertical, side and horizontal use
- Distance between two centers (D): 7.874"
- Diameter of center (d1/d2) .630" DIA/.795" DIA



horizontal use



side use

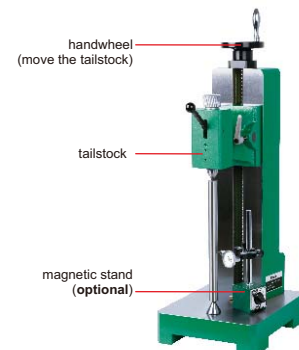
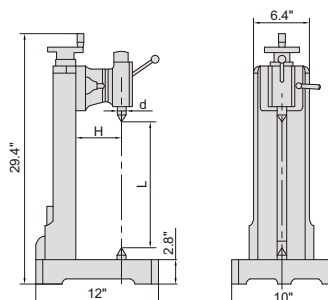


vertical use

Part No.	Runout accuracy	Center height (H)	Weight	Load
4722-200	.00008"	3.150"	48.4lb	55lb

VERTICAL BENCH CENTER

- Runout accuracy .00008"
- Center height (H): 5.2"
- Distance between two centers (L): 14.2"
- Diameter of center (d) .948" DIA
- Hardened cast-iron guide surface
- Use handwheel to move the tailstock
- Optional accessory: magnetic stands, dial test indicator

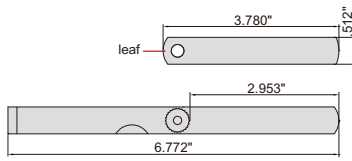


4728-360

Part No.	Parallelism *	Taper of center	Weight	Load
4728-360	.0004"	MT3	187lb	176lb

*Parallelism of two centers to the guide surface

FEELER GAGE



4608-31

- .010" is made of brass, others are made of hardened alloy steel
- Each blade is marked with inch/metric size

Part No.	Range	Quantity of leaves
4608-31	.0015"-.035"	32

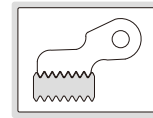
Thickness of leaves included	Accuracy	Thickness of leaves included	Accuracy
.010" (brass)	±.00039"	.016", .017"	±.00055"
.0015", .002"	±.0002"	.018", .019"	±.00059"
.0025", .003", .004", .005", .006", .007"	±.00028"	.020", .021"	±.00067"
.008", .009"	±.00035"	.022", .023"	±.00071"
.010", .011"	±.00039"	.024", .025", .026"	±.00075"
.012", .013"	±.00047"	.028"	±.00091"
.014", .015"	±.00051"	.030"	±.00094"
		.032", .035"	±.00102"

PITCH GAGES

- Check the pitch of screw thread
- Made of medium carbon steel



4820-124



Unified 60° screw

Part No.	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

Metric 60° screw

Part No.	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

Whitworth 55° screw

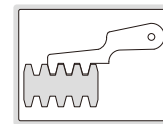
Part No.	Range	Pitch of leaves included	Quantity of leaves
4820-330	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	30

PITCH GAGES



4824-12

- Check the pitch of screw thread
- Accuracy: ±.0028"
- Made of medium carbon steel



Part No.	Range	Thread type	Pitch of leaves included	Quantity of leaves
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
4824-12	2-20mm	Tr 30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20mm	12

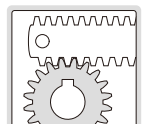
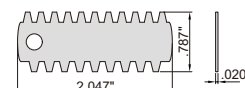
GEAR TOOTH PITCH GAGES

- Check the diametrical pitch of gear tooth
- Accuracy: ±.0028"
- Made of hardened stainless steel

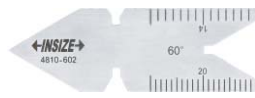
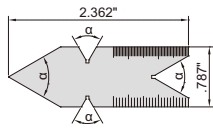
Part No.	Range (DP)	Pressure angle	Quantity of leaves
4860-15	2-5	14.5°	7
4860-25	2-5	20°	7
4860-180	6-80	14.5°	14
4860-280	6-80	20°	14



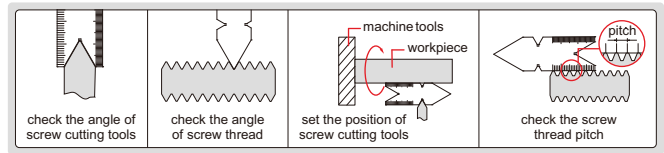
4860-180



CENTER GAGES



4810-602

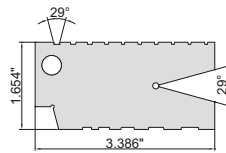


- To check and set screw cutting tools, and check the angle and pitch of screw thread
- Angle accuracy: ± 30 min.
- Made of stainless steel

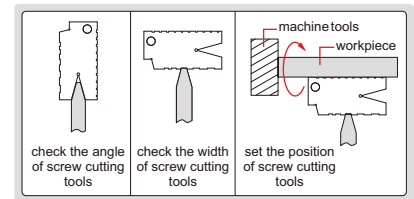
Part No.	Thread type	Angle (α)	Graduation
4810-602	UNIFIED 60°	60°	14ths and 20ths on front side, 24ths and 32ths on back side
4810-601	METRIC 60°	60°	0.5mm and 1mm
4810-55	WHITWORTH 55°	55°	14ths and 20ths on front side, 24ths and 32ths on back side

THREAD GAGE

- Thread type: ACME 29°
- To check and set screw cutting tools
- Made of medium carbon steel



4812-E

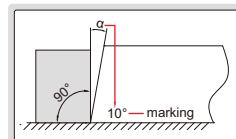


Part No.	Range	Pitch
4812-E	1-10TPI	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10TPI

ANGLE GAGE

- Accuracy: $\pm 30'$
- Quantity of leaves: 20
- To check complementary angles
- Made of stainless steel

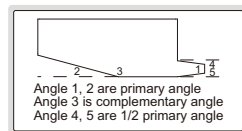
Part No.	Range	Angle of leaves included
4806-20	1°~45°	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 12°, 14°, 16°, 18°, 20°, 25°, 30°, 35°, 40°, 45°



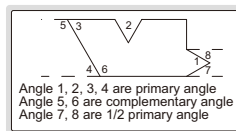
4806-20

ANGLE GAGE SET

- Each blade checks primary, 1/2 primary and complementary angles
- Made of medium carbon steel



type A



type B



4807

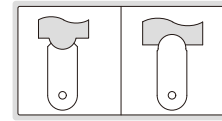
Primary angle	1/2 primary angle	Complementary angle	Type	Primary angle	1/2 primary angle	Complementary angle	Type
5°	2°30'	175°	A	50°	25°	130°	B
10°	5°	170°	A	55°	27°30'	125°	B
15°	7°30'	165°	A	60°	30°	120°	B
20°	10°	160°	B	65°	32°30'	115°	B
25°	12°30'	155°	B	70°	35°	110°	B
30°	15°	150°	B	75°	37°30'	105°	B
35°	17°30'	145°	B	80°	40°	100°	B
40°	20°	140°	B	85°	42°30'	95°	B
45°	22°30'	135°	B	90°	45°	90°	B

Part No.	Quantity of leaves	Accuracy
4807	18	$\pm 10'$

RADIUS GAGES



4801-15E

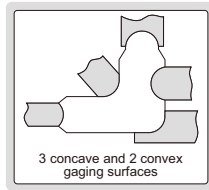


- Made of medium carbon steel

Part No.	Range	Radius of leaves included	Quantity of leaves (internal+external)
4801-15E	1/32"~1/4"	1/32", 3/64", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 11/64", 3/16", 13/64", 7/32", 15/64", 1/4"	15+15
4801-16E	17/64"~1/2"	17/64", 9/32", 19/64", 5/16", 21/64", 11/32", 23/64", 3/8", 25/64", 13/32", 27/64", 7/16", 29/64", 15/32", 31/64", 1/2"	16+16
4801-16E1	17/32"~1"	17/32", 9/16", 19/32", 5/8", 21/32", 11/16", 23/32", 3/4", 25/32", 13/16", 27/32", 7/8", 29/32", 15/16", 31/32", 1"	16+16

RADIUS GAGE SETS

- Each piece has 3 concave and 2 convex gaging surfaces
- Made of medium carbon steel
- Supply with handle



4804-26

Part No.	Range	Radius of leaves included	Quantity of leaves	Handle
4804-25E	1/64"~1/2"	1/64", 1/32", 3/64", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 11/64", 3/16", 13/64", 7/32", 15/64", 1/4", 17/64", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32", 1/2"	25	with
4804-26E	.010"~.5"	.010", .015", .020", .025", .030", .040", .050", .060", .070", .080", .090", .100", .12", .14", .16", .18", .20", .22", .24", .26", .28", .30", .35", .40", .45", .50"	26	with
4804-8E	9/16"~1"	9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"	8	without
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, 13mm	26	with

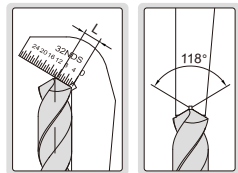
DRILL POINT GAGE



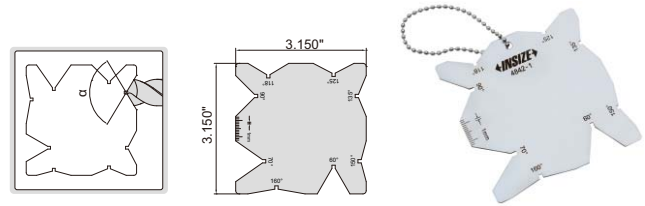
4843-1E

- For twist drills with 118° angle, to check if the center of tip is concentric with the drill body
- Made of stainless steel

Part No.	Accuracy	
	Angle	Length
4843-1E	±0.5°	±.02"



DRILL ANGLE GAGE



4842-1

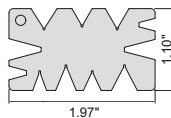
Part No.	Accuracy
4842-1	±0.5°

- Check drills with angle 60°, 70°, 90°, 118°, 125°, 135°, 150° or 160°
- Made of stainless steel

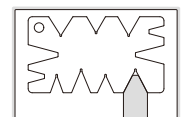
ANGLE GAGE

- Made of stainless steel

Part No.	Range	Accuracy
4854-1	29°, 30°, 40°, 45°, 50°, 55°, 60°	±10'



4854-1

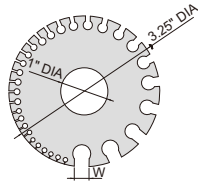


check the angle of screw cutting tools

AMERICAN STANDARD WIRE GAGE



4808



No.	W	No.	W
0	.3249"	18	.0403"
1	.2893"	19	.0359"
2	.2576"	20	.0320"
3	.2294"	21	.0285"
4	.2043"	22	.0253"
5	.1819"	23	.0226"
6	.1620"	24	.0201"
7	.1443"	25	.0179"
8	.1285"	26	.0159"
9	.1144"	27	.0142"
10	.1019"	28	.0126"
11	.0907"	29	.0113"
12	.0808"	30	.0100"
13	.0720"	31	.0089"
14	.0641"	32	.0080"
15	.0571"	33	.0071"
16	.0508"	34	.0063"
17	.0453"	35	.0056"
		36	.0050"

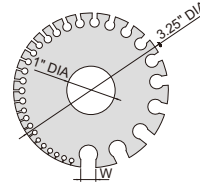
- For gaging non-ferrous wire and metals such as copper, brass and aluminum
- Hardened to HRC50-57

Part No.	Range
4808	0~36 (.3249~.0050")

U.S. STANDARD SHEET METAL GAGE



4809



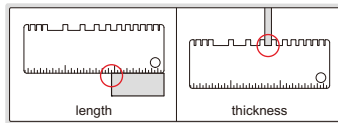
No.	W	No.	W
0	.3125"	18	.0500"
1	.2813"	19	.0438"
2	.2656"	20	.0375"
3	.2500"	21	.0344"
4	.2344"	22	.0313"
5	.2188"	23	.0281"
6	.2031"	24	.0250"
7	.1875"	25	.0219"
8	.1719"	26	.0188"
9	.1563"	27	.0172"
10	.1406"	28	.0156"
11	.1250"	29	.0141"
12	.1094"	30	.0125"
13	.0938"	31	.0109"
14	.0781"	32	.0102"
15	.0703"	33	.0094"
16	.0625"	34	.0086"
17	.0563"	35	.0078"
		36	.0070"

- For gaging sheet metal, plate iron and steel
- Hardened to HRC50-57

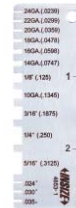
Part No.	Range
4809	0~36 (.3125~.0070")

THICKNESS GAGE

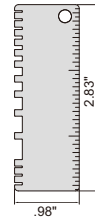
- Made of stainless steel



Part No.	Measurement	Range	Graduation	Accuracy
4853-1	length	0-2 3/4"	1/16"	1/32"
	thickness	24GA. (.0239"), 22GA. (.0299"), 20GA. (.0359")	—	±.002"
		18GA. (.0478"), 16GA. (.0598"), 14GA. (.0747"), 1/8" (.125"), 10GA. (.1345"), 3/16" (.1875"), 1/4" (.250"), 5/16" (.3125")		±.004"
	.024", .030", .035"		±.002"	

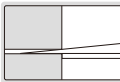


4853-1



DIGITAL TAPER SLOT GAGES

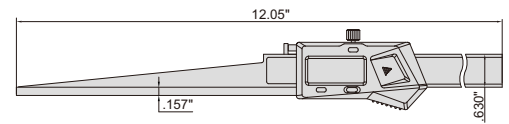
measure slot width



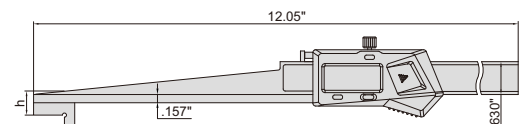
1160-10

- Non waterproof
- Measuring opening, slot width
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)

Part No.	Range	Accuracy	h
1160-10	.008-.394"/0.2-10mm	±.001"	—
1160-20	.394-.787"/10-20mm	±.002"	.394"
1160-30	.787-1.181"/20-30mm	±.002"	.787"
1160-40	1.181-1.575"/30-40mm	±.002"	1.181"



1160-10

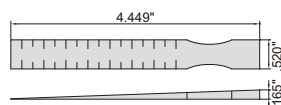


1160-20, 1160-30 and 1160-40

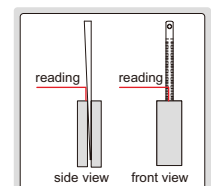
DATA OUTPUT

TAPER SLOT GAGE

- For quick measurement of slot width
- Satin chrome plated reading surface
- Made of stainless steel

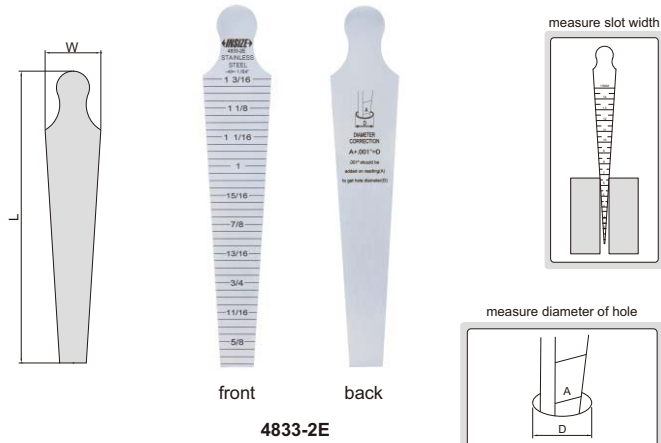


4630-1E



Part No.	Range	Graduation	Accuracy
4630-1E	.01~.15"	.001"	±.003"

TAPER GAGES



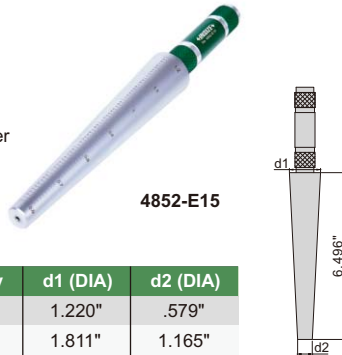
4833-2E

- Measure opening, slot width, hole diameter, etc.
- Diameter correction table on the back (except 4833-4E)
- Made of stainless steel

Part No.	Range	Graduation	Accuracy	L	W
4833-1E	1/32~5/8"	1/64"	±.004"	5.748"	.669"
4833-2E	5/8~1-3/16"	1/64"	±.004"	6.260"	1.197"
4833-3E	1-3/16~1-3/4"	1/64"	±.004"	6.535"	1.787"
4833-4E	1-3/4~2-3/8"	1/64"	±.004"	6.693"	2.382"

TAPER BORE GAGES

- Graduation .005"
- Quick measurement of bore diameter
- Hardened steel, HRC50-58
- Satin chrome plated surface
- Aluminium oxidized handle

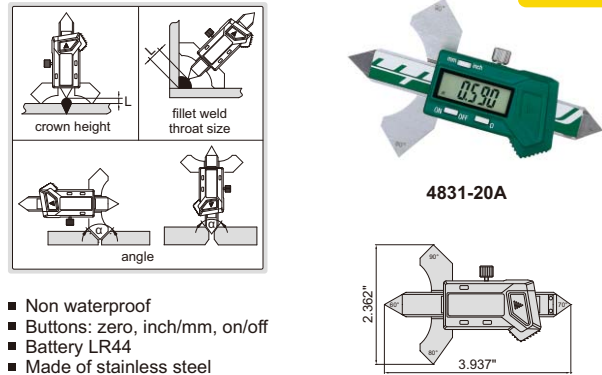


4852-E15

Part No.	Range	Accuracy	d1 (DIA)	d2 (DIA)
4852-E15	.6-1.2"	±.0025"	1.220"	.579"
4852-E30	1.2-1.8"	±.0025"	1.811"	1.165"

DIGITAL WELDING GAGE

**ATTENTION:
NO DATA OUTPUT**

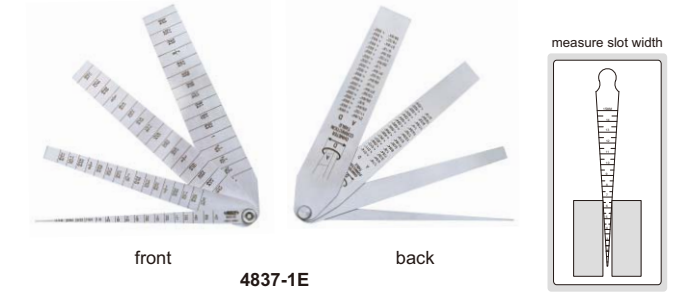


4831-20A

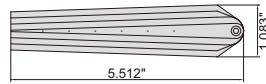
- Non waterproof
- Buttons: zero, inch/mm, on/off
- Battery LR44
- Made of stainless steel

Part No.	Measurement	Range	Resolution	Accuracy
4831-20A	crown height	0-.4"/0-7mm	.0005"/0.01mm	±.0012"
	fillet weld throat size	0-.8"/0-20mm	.0005"/0.01mm	±.0039"
	angle	60°, 70°, 80°, 90°	—	±1°

TAPER GAGE SET

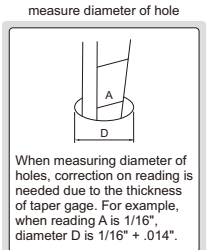


4837-1E

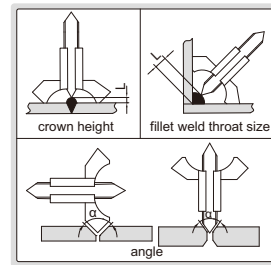


- Include 4 pcs (1/16~5/16", 21/64~9/16", 37/64~13/16", 53/64~1-1/16")
- Measure opening, slot width, hole diameter, etc.
- Diameter correction table on the back
- Made of stainless steel

Part No.	Range	Graduation	Accuracy
4837-1E	1/16~1-1/16"	1/64"	±.004"



WELDING GAGE



4830-E

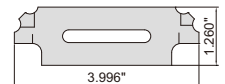
- Made of stainless steel
- Satin chrome plated reading surface

Part No.	Measurement	Range	Graduation	Accuracy
4830-E	crown height	0-5/16"	1/128"	±.0039"
	fillet weld throat size	0-9/16"	1/128"	±.0118"
	angle	60°, 70°, 80°, 90°	—	±1°

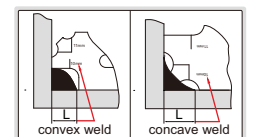
FILLET WELDING GAGE



4836-2



- Accuracy: ±.02" (0.5mm)
- Measure concave and convex weld sizes
- 7 blades are included
- Made of stainless steel



Part No.	Size
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)

WELDING GAGE

- Adjustable scale to compensate pointer wear
- Made of stainless steel

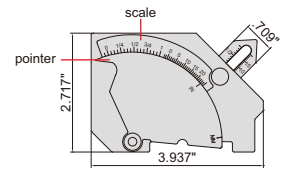


front

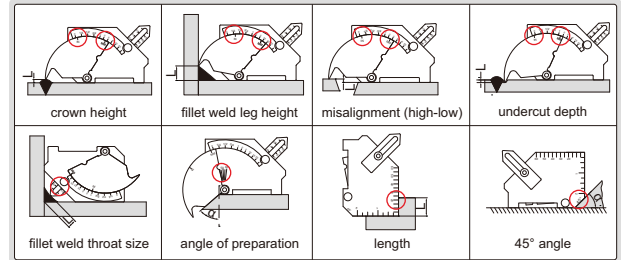


back

4835-1

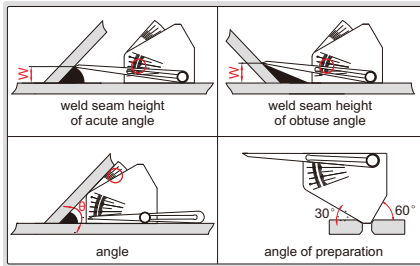


Part No.	Measurement	Range	Graduation	Accuracy
4835-1	crown height	0-1" (0-25mm)	1/16" (1mm)	±.02"
	fillet weld leg height	0-1" (0-25mm)	1/16" (1mm)	±.02"
	misalignment (high-low)	0-1" (0-25mm)	1/16" (1mm)	±.02"
	undercut depth	0-1/8" (0-2mm)	1/16" (1mm)	±.02"
	fillet weld throat size	0-3/4" (0-20mm)	1/16" (1mm)	±.02"
	angle of preparation	0-60°	5°	±1°
	length	0-2" (0-60mm)	1/16" (1mm)	±.02"
	45° angle	—	—	±1°

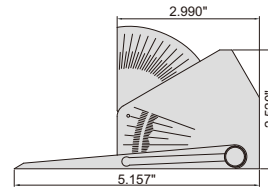


FILLET WELDING GAGE

- Calculating card is included
- Made of stainless steel

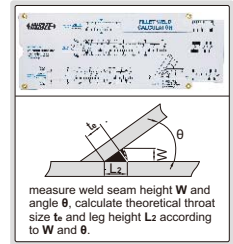


4846-1



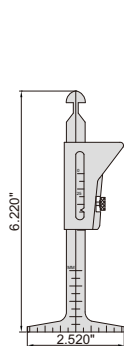
Part No.	Measurement	Range	Graduation	Accuracy
4846-1	weld seam height W	0-2"/0-50mm	.050"/2mm	±.025"
	angle θ	30°-90°	2.5°	±1°
	60° angle	—	—	±0.5°

calculating card (included)



PIPE WELDING GAGE

- Made of stainless steel



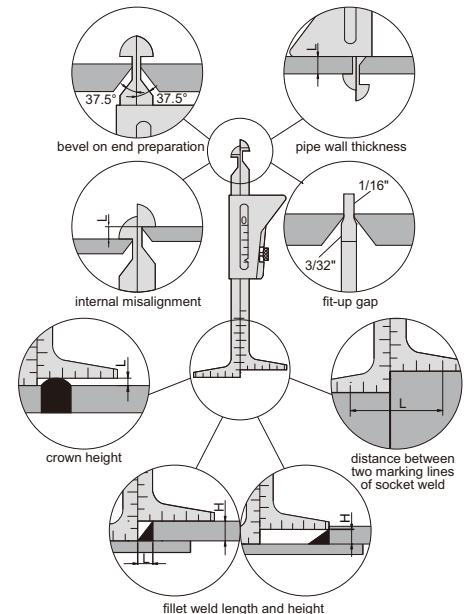
front



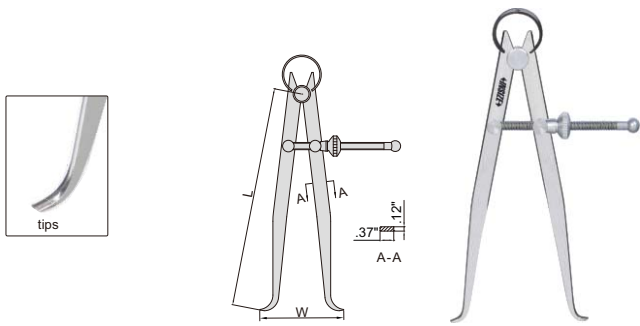
back

4839-1

Part No.	Measurement	Range	Graduation	Accuracy
4839-1	bevel on end preparation	37.5°	—	±1°
	pipe wall thickness	0~1-3/4" (0-45mm)	1/16" (1mm)	±.02"
	internal misalignment	0~1-3/8" (0-35mm)	1/32" (1mm)	±.02"
	fit-up gap	1/16", 3/32"	—	±.004"
	crown height	0~1-3/8" (0-35mm)	1/32" (1mm)	±.02"
	distance between two marking lines of socket weld	0~2-3/8" (0-60mm)	1/16" (1mm)	±.02"
	fillet weld length	0~1-1/4" (0-30mm)	1/16" (1mm)	±.02"
	fillet weld height	0~1-3/8" (0-35mm)	1/32" (1mm)	±.02"



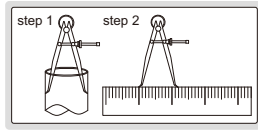
INSIDE SPRING CALIPERS



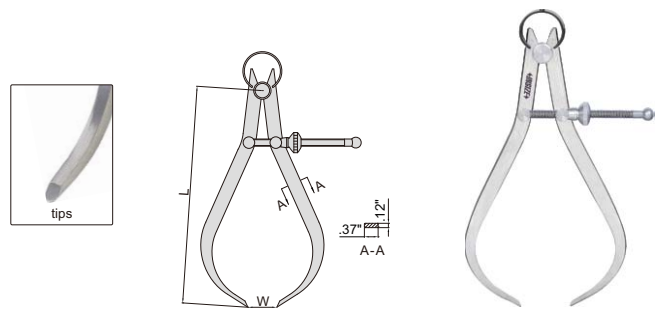
7261-150

■ Made of carbon steel

Part No.	Size (L)	Range (W)
7261-150	6"	.79-6.69"
7261-200	8"	.87-8.66"
7261-250	10"	1.18-10.63"
7261-300	12"	1.18-12.60"



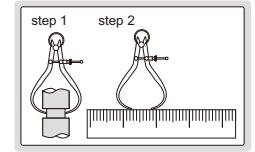
OUTSIDE SPRING CALIPERS



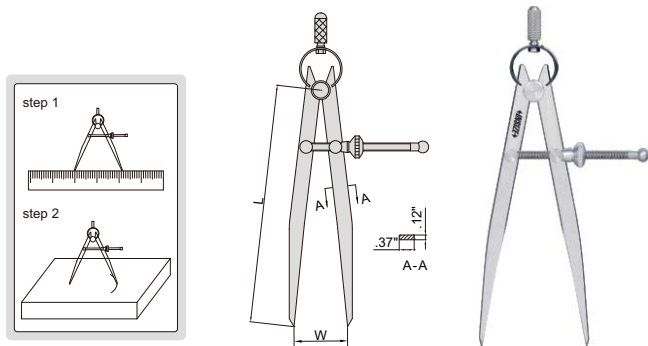
7262-150

■ Made of carbon steel

Part No.	Size (L)	Range (W)
7262-150	6"	0-5.51"
7262-200	8"	0-8.27"
7262-250	10"	0-10.63"
7262-300	12"	0-12.60"



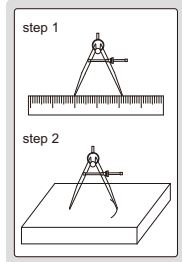
SPRING DIVIDERS



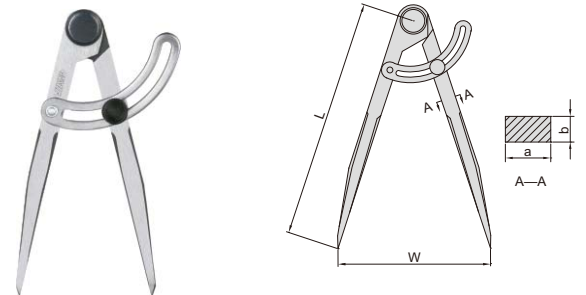
7260-150

■ Made of carbon steel
■ Hardened points

Part No.	Size (L)	Range (W)
7260-150	6"	0-5.91"
7260-200	8"	0-8.27"
7260-250	10"	0-10.24"
7260-300	12"	0-12.60"



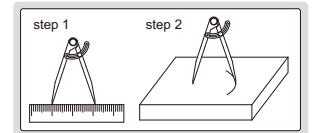
DIVIDERS



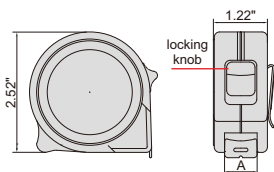
7247-150

■ Made of carbon steel
■ Hardened points

Part No.	Size (L)	Range (W)	a	b
7247-150	6"	0-5.51"	.33"	.28"
7247-200	8"	0-7.48"	.39"	.28"
7247-300	12"	0-11.42"	.47"	.28"



MEASURING TAPE (BASIC TYPE)

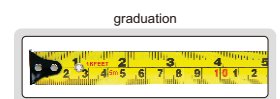


■ Non-glare nylon coating tape, wear resistance



7142-5

Part No.	Range	Graduation	Width of tape A
7142-5	0-16ft/0-5m	1/16", 1mm	.75"



EG II

BLUETOOTH DIGITAL MEASURING TAPES+LASER DISTANCE METERS

**BUILT-IN
BLUETOOTH**

- Display with backlight
- Automatic power off: laser 30s, main unit 180s
- Can work continuously for 5 hours

SPECIFICATION

Part No.	9563-C40	9563-C60	
Digital measuring tape	range	16ft	
	resolution	.001ft, 1/16"	
	accuracy	±1/16"	
	blade width	3/4"	
	horizontal stand-out	5.9ft	
Laser distance meter	range	131ft	196ft
	resolution	.001ft, 1/16"	
	accuracy	±(.12+D/1666)", D: measured distance, unit: ft	
	units	ft, in, ft+in, m	
	laser type	630~670nm, <1mW, class 2	
	measurement function	single, area, volume, pythagoras measurement	
Output	bluetooth		
Operation temperature	32~104°F		
Storage temperature	14~140°F		
Power supply	built-in rechargeable lithium battery		
Dimension (L×W×H)	3.7×2.9×2.2"		
Weight	.69lb		



9563-C40



digital measuring tape



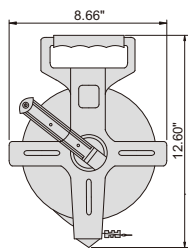
laser distance meter



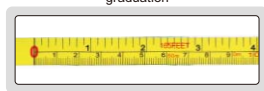
connect to phone (APP)

LONG MEASURING TAPE

**EG
II**



graduation

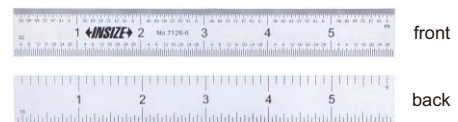


7143-50

- High tensile strength fibreglass tape
- Nylon coating tape, wear resistance

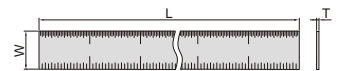
Part No.	Range	Graduation	Width of tape
7143-50	0-165ft/0-50m	1/8", 1mm	.51"

RIGID RULES



7126-6

- Graduation: 1/64" and 1/32" on front face, 1/16" and 1/8" on back face
- 4R graduation
- Made of stainless steel
- Non-glare surface



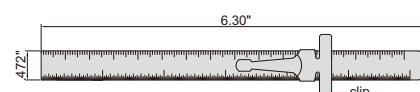
Part No.	Range (L)	Accuracy	W	T
7126-6	6"	±.007"	.748"	.039"
7126-12	12"	±.010"	.984"	.039"
7126-24	24"	±.017"	1.102"	.047"

POCKET RULE WITH SLIDING CLIP

- With sliding clip, clip also can be used as depth gage base
- Inch/metric conversion table on the back
- Made of stainless steel



7119-150



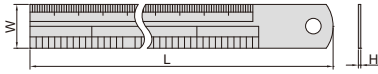
Part No.	Range	Graduation	Accuracy
7119-150	6"/150mm	1/64", 1mm	±.012"

POPULAR MODEL

STEEL RULES



7110-300



Part No.	Range	Accuracy	L	W	H	Remark
7110-150	6"/150mm	±.007"	6.693"	.709"	.039"	graduation on front and back
7110-200	8"/200mm	±.007"	8.661"	.709"	.039"	graduation on front and back
7110-300	12"/300mm	±.010"	12.992"	.984"	.039"	graduation on front and back
7110-3001	12"/300mm	±.010"	12.795"	1.181"	.039"	graduation on front and back
7110-500	20"/500mm	±.010"	20.866"	1.181"	.047"	graduation on front and back
7110-600	24"/600mm	±.017"	24.803"	1.181"	.047"	graduation on front and back
7110-1000	40"/1000mm	±.017"	40.945"	1.260"	.059"	graduation on front and back
7110-1200	48"/1200mm	±.025"	48.819"	1.378"	.071"	graduation on front
7110-1500	60"/1500mm	±.025"	61.024"	1.496"	.071"	graduation on front
7110-2000	80"/2000mm	±.031"	81.299"	1.575"	.079"	graduation on front

- Graduation: 1/64", 1/32", 1/16", 0.5mm, 1mm
- Rigid rules
- Made of stainless steel
- Non-glare surface

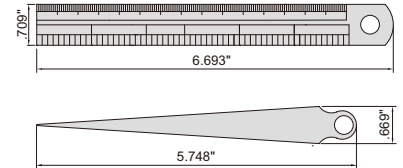
TAPER GAGE AND STEEL RULER SET



front

4829-1E

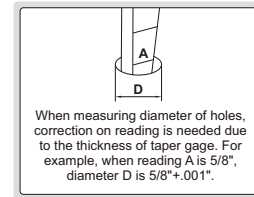
back



- Diameter correction table on the taper gage back
- Made of stainless steel

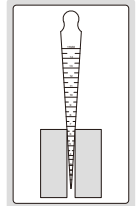
Part No.	Tool	Range	Accuracy	Graduation
4829-1E	taper gage	1/32-5/8"	±.004"	1/64"
	steel ruler	6"/150mm	±.006"	1/64", 1/32", 1/16", 0.5mm, 1mm

use the taper gage to measure diameter of hole



When measuring diameter of holes, correction on reading is needed due to the thickness of taper gage. For example, when reading A is 5/8", diameter D is 5/8" ± .001".

use the taper gage to measure slot width



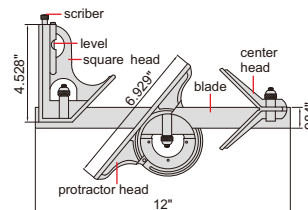
COMBINATION SQUARE SETS (CLOSE TYPE PROTRACTOR)

POPULAR MODEL

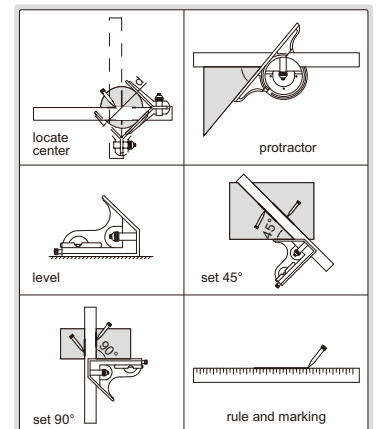


2278-180

- Center head (made of cast iron): to locate center of cylinder with diameter (d): 1.181" DIA~3.937" DIA accuracy: ±.006"
- Protractor head (made of cast iron): set the blade at desired angle to an edge of a workpiece, and can be used to measure angles range: 0-180°, accuracy: ±20min.
- Square head (made of cast iron): set the blade at 90° or 45° to an edge of a workpiece accuracy: ±8min. for 90° square, ±10min. for 45° square
- Optional accessory: rigid rule (part no. 7113)

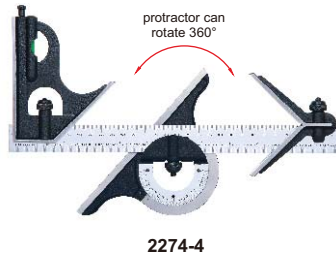


Part No.	Remark	Blade Range	Blade Graduation
2278-180	4-piece set	12"/300mm	1/32" and 0.5mm on front face, 1/64" and 1mm on back face
2278-180E	4-piece set	12"	1/8" and 1/16" on front face, 1/32" and 1/64" on back face

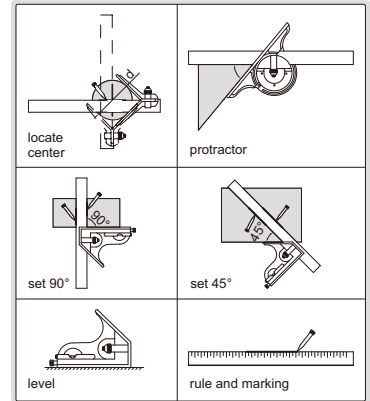
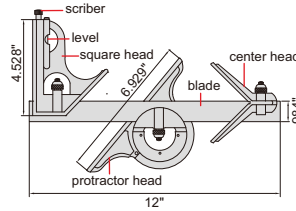


COMBINATION SQUARE SET (OPEN TYPE PROTRACTOR)

- Center head (made of cast iron): to locate center of cylinders with diameter (d): 1.181" DIA~3.937" DIA accuracy: $\pm 0.006"$
- Protractor head (made of cast iron): set the blade at desired angle to an edge of a workpiece, and can be used to measure angles range: 0-180° accuracy: $\pm 20\text{min.}$
- Square head (made of cast iron): set the blade at 90° or 45° to an edge of a workpiece accuracy: $\pm 8\text{min.}$ for 90° square, $\pm 10\text{min.}$ for 45° square
- Blade (made of stainless steel): range: 12"/300mm, graduation: 1/32" and 0.5mm on front face, 1/64" and 1mm on back face
- Optional accessory: rigid rule (part no. 7113)



2274-4



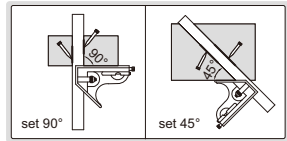
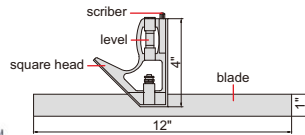
Part No.	Remark
2274-4	4-piece set

COMBINATION SQUARE (ECONOMIC TYPE)



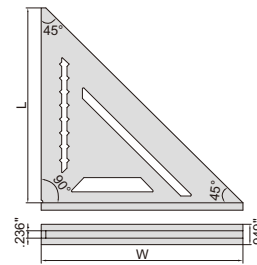
2276-300

- Square head (made of zinc): to set the blade at 90° or 45° to an edge of a workpiece accuracy: $\pm 0.5"$
- Blade (made of stainless steel): range: 12"/300mm, graduation: 1/32" and 1mm on front face, 1/16" and 1mm on back face



Part No.
2276-300

PLASTIC ANGLE SQUARE

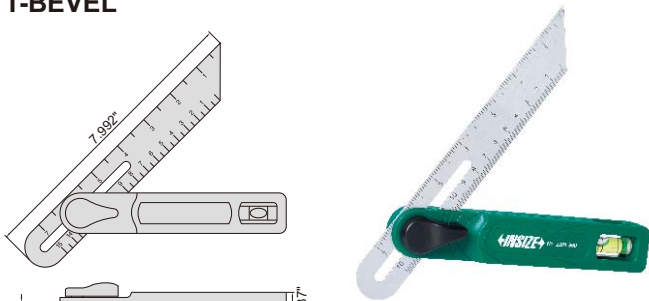


2282-180

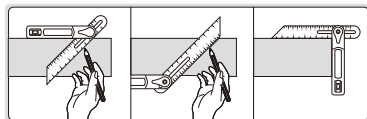
- Length range: 0-7", graduation: 1/8"
- Angel range: 0-90°, graduation: 1°

Part No.	Size (LxW)	Accuracy of angle
2282-180	7x7.3"	$\pm 0.3^\circ$

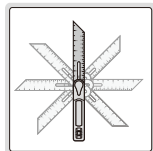
T-BEVEL



2281-360



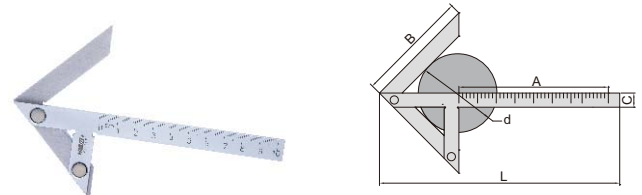
blade can rotate 360°



- Easy-to-read vial
- The blade can move and can be locked by the clamping screw
- Stainless steel blade
- Tough rubber handle
- Centimeter/inch graduations

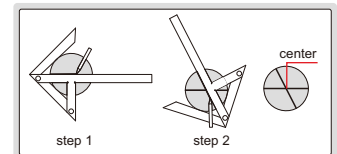
Part No.	Angle mark	Accuracy of angle
2281-360	15°, 30°, 45°, 60°, 90°	$\pm 1^\circ$

CENTER MARKING GAGES



7205-100

- Marking the center of round plates and shafts
- Made of stainless steel
- Satin chrome plated



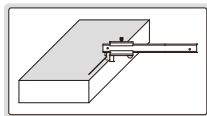
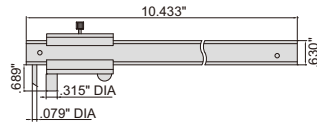
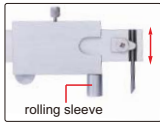
Part No.	Size (AxB)	Accuracy	Diameter of shafts (d)	C	L
7205-100	100x70mm	$\pm 0.15\text{mm}$	.16-3.54" DIA	.472"	6.024"
7205-150	150x130mm	$\pm 0.15\text{mm}$	.16-7.48" DIA	.591"	9.646"
7205-200	200x150mm	$\pm 0.15\text{mm}$	.24"-8.66" DIA	.591"	12.205"
7205-300	300x180mm	$\pm 0.15\text{mm}$	.24"-10.63" DIA	.787"	17.126"

SCRIBING CALIPER



7202-200A

the position of scriber tip can be adjusted



- Made of stainless steel
- Satin chrome plated reading surface
- Carbide scriber tip
- Optional accessory: carbide scriber tip (part no. SP-SCRIBER-7202)

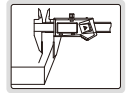
Part No.	Range	Graduation	Accuracy
7202-200A	0-8"/0-200mm	1/128", 0.1mm	±.004"

DIGITAL SCRIBING CALIPER

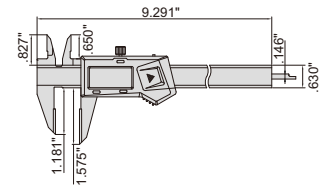
DATA OUTPUT



1166-150A



- Non waterproof
- The carbide-tipped jaws facilitate scribing on workpieces
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)

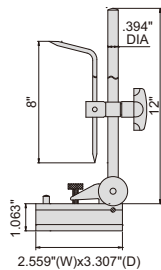


Part No.	Range	Resolution	Accuracy
1166-150A	0-6"/0-150mm	.0005"/0.01mm	±.0015"

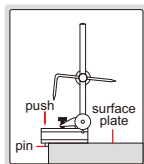
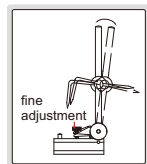
HEIGHT SCRIBER



6990-300A



- Grooved bottom for cylinders
- Two pins to be set against the edge of surface plate

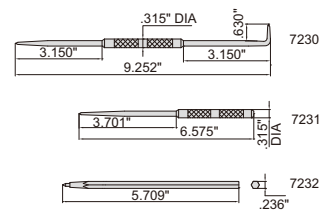


Part No.
6990-300A

SCRIBERS



- 7230 and 7231 are nickel plated, 7232 is zinc-plated



Part No.	Tip
7230	hardened tips
7231	hardened tip
7232	carbide tip

PRECISION SCREWDRIVER SET



ISGF-0901



- Includes:
 - 4 pcs "-": .055"/1.4mm, .079"/2.0mm, .094"/2.4mm, .118"/3.0mm
 - 2 pcs "+": 0#, 1#
- Rotating cap
- Material: CRV, hardness: HRC52-56

Part No.
ISGF-0901

2-PIECE MEASURING TOOL SET

- Includes:
 - 1) Dial indicator, range 1", graduation .001" (part no. 2307-1)
 - 2) Magnetic stand (part no. 6201-60)



5002-4E

Part No.
5002-4E

2-PIECE MEASURING TOOL SET

- Includes:
 - Digital caliper, range 0-6"/0-150mm, resolution .0005"/0.01mm (part no. 1108-150)
 - Digital outside micrometer, range 0-1"/0-25mm, resolution .00005"/0.001mm (part no. 3109-25E)



Part No.
5022-E

5022-E

2-PIECE MEASURING TOOL SET

- Includes:
 - Dial test indicator, range .03", graduation .0005" (part no. 2380-35)
 - Magnetic stand



Part No.
5023-E

5023-E

3-PIECE MEASURING TOOL SET

- Includes:
 - Dial caliper, range 0-6", graduation .001" (part no. 1311-6)
 - Outside micrometer, range 0-1", graduation .0001" (part no. 3202-1)
 - Steel rule, 6"/150mm (part no. 7110-150)



Part No.
5003-1

5003-1

3-PIECE MEASURING TOOL SET

- Includes:
 - Digital caliper, range 0-6"/0-150mm, resolution .0005"/0.01mm (part no. 1108-150)
 - Outside micrometer, range 0-1", graduation .0001" (part no. 3202-1)
 - Steel rule, 6"/150mm (part no. 7110-150)



Part No.
5003-1E

5003-1E

5-PIECE MEASURING TOOL SET

- Includes:
 - Digital caliper, range 0-6"/0-150mm, resolution .0005"/0.01mm (part no. 1108-150)
 - Digital outside micrometer, range 0-1"/0-25mm, resolution .00005"/0.001mm (part no. 3109-25E)
 - Digital indicator, range .5"/12.7mm, resolution .0005"/0.01mm (part no. 2112-10E)
 - Magnetic stand (part no. 6201-60)
 - Micrometer stand (part no. 6300)



Part No.
5052-E

5052-E

13-PIECE MEASURING TOOL SET

- Includes:
 - Digital caliper, range 0-6"/0-150mm, resolution .0005"/0.01mm (part no. 1108-150)
 - Outside micrometer, range 0-1", graduation .0001" (part no. 3202-1)
 - Dial indicator, range 1", graduation .001" (part no. 2307-1)
 - Magnetic stand (part no. 6201-60)
 - Protractor, range 0-180°, graduation 1° (part no. 4799-180)
 - Pitch gauge, range 4-42TPI, 30 pcs, unified 60° thread (part no. 4820-230)
 - Radius gauge, range 1/32"-1/4" (part no. 4801-15E)
 - Feeler gauge, range .0015"-.035", 31pcs (part no. 4608-31)
 - 90° beveled edge square, 3.937x2.756", grade 0 (part no. 4790-1000)
 - Scriber (part no. 7230)
 - Steel rule, 6"/150mm (part no. 7110-150)
 - Depth base attachment (part no. 6140)
 - Zero setting bar for depth base attachment



5013-E

Part No.
5013-E

GRANITE SURFACE PLATES

- Made of granite, free from deterioration or dimensional change over time, minimal changes in dimension due to temperature changes
- Meet GGG-P-463C
- Optional accessory: stand for granite surface plate (part no. 6902), jack for granite surface plate (part no. 6903)

Grade A

Part No.	Size (WxLxH)	Flatness	Weight (lb)	Max. load (lb)
6900-A11*	12x18x3"	.00012"	32	110
6900-A12*	18x24x3"	.00013"	64	143
6900-A23*	24x36x4"	.00015"	170	440
6900-A34*	36x48x6"	.00018"	510	1102

*Supplied with manufacturer inspection certificate



ADDITIONAL CUSTOM SIZES UP TO 6.5' AVAILABLE ON REQUEST

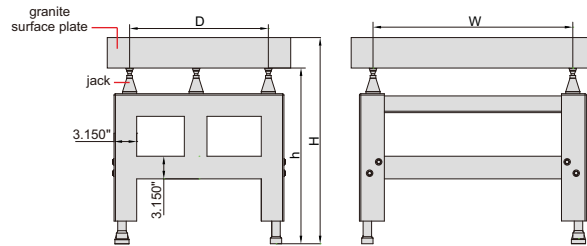


6900-A11



STANDS FOR GRANITE SURFACE PLATE

- For medium size granite surface plates
- 5 jacks are included
- Adjusting range of jacks: 1"
- One foot on the bottom is adjustable



6902-64A

Low stands

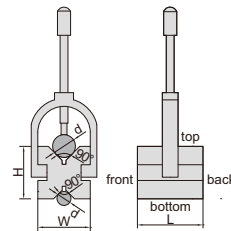
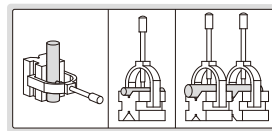
Part No.	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64A	12x18x3" (part no. 6900-A11)	13.858"	8.819"	30.512"-31.496"	27.362"-28.346"
6902-85A	18x24x3" (part no. 6900-A12)	17.638"	11.024"	30.512"-31.496"	26.575"-27.559"
6902-106A	24x36x4" (part no. 6900-A23)	22.047"	13.858"	29.724"-30.709"	24.213"-25.197"

High stands

Part No.	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64H	12x18x3" (part no. 6900-A11)	13.858"	8.819"	39.370-40.354"	36.220-37.205"
6902-85H	18x24x3" (part no. 6900-A12)	17.638"	11.024"	39.370-40.354"	35.433-36.417"
6902-106H	24x36x4" (part no. 6900-A23)	22.047"	13.858"	39.370-40.354"	33.858-34.843"

V-BLOCK SETS

- Squareness of both V grooves to front and back sides .0002"
- 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

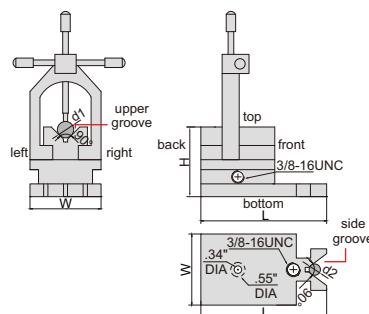


6896-11

Part No.	Size (LxWxH)	Range of shafts (d)	Parallelism of both V grooves to top and bottom sides	Height difference of a matched pair
6896-11	2.0x1.6x1.6"	.20-1.18" DIA	.0002"	.0002"
6896-12	3.1x2.5x2.5"	.28-2.48" DIA	.0002"	.0002"
6896-13	3.9x3.1x3.1"	.28-3.15" DIA	.0002"	.0002"

V-BLOCK

- Hold cylindrical workpieces for inspection and machining
- Made of alloy steel
- Hardened to HRC60±2
- Range of shafts (d1 and d2) .20"-1.30" DIA
- Squareness of upper groove to back side .0002"
- Parallelism of side groove to back side .0002"



6804-1



side groove is for shouldered studs and pins



the adjustable screw can support the block and prevent tilting

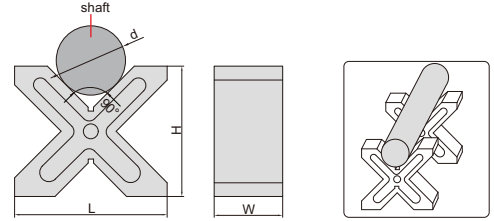
Part No.	Size (LxWxH)	Parallelism of upper groove to bottom, left and right sides
6804-1	3.5"x1.9"x1.9"	.0002"

V-BLOCK SETS

- For positioning cylindrical workpieces
- Two V-blocks per set
- Each V-block has four 90° V-grooves
- Cast iron, hardness HB170-241



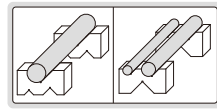
6805-2



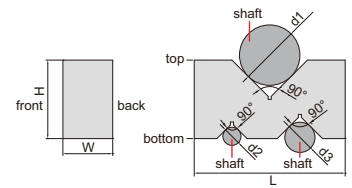
Part No.	Size (L×H×W)	Range of shafts (d)	Parallelism of four V grooves to all sides	Height difference of a matched pair
6805-1	5.906×5.118×2.953"	.315-4.724" DIA	.0006"	.0008"
6805-2	7.874×6.693×3.543"	.472-7.087" DIA	.0006"	.0008"

V-BLOCK SETS

- Two V-blocks per set
- Made of hardened tool steel



6887-3

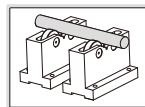


Part No.	Size (LxWxH)	Range of shafts (d1)	Range of shafts (d2)	Range of shafts (d3)
6887-1	2.0x.7x.9"	.12-1.26" DIA	.12-.63" DIA	.12-.87" DIA
6887-2	3.0x.9x1.4"	.12-1.97" DIA	.12-.79" DIA	.12-1.26" DIA
6887-3	3.9x1.3x2.0"	.12-2.68" DIA	.12-1.02" DIA	.12-1.57" DIA
6887-4	4.9x1.7x2.7"	.12-3.43" DIA	.12-1.34" DIA	.12-1.97" DIA

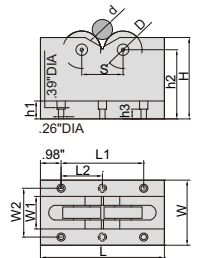
Part No.	Parallelism of three V grooves to top and bottom sides	Height difference of a matched pair
6887-1	.0002"	.0002"
6887-2	.0002"	.0002"
6887-3	.0002"	.0002"
6887-4	.0002"	.0002"

ROLLER BEARING V-BLOCK SETS

- Runout accuracy .0002"
- Parallelism of bearings to bottom .00047"
- Two V-blocks per set
- Workpieces don't get damaged due to bearings
- Suitable for heavy workpieces



6888-1

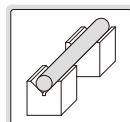


Part No.	Size (LxWxH)	Part no. of bearings	Diameter of bearings (D)	Range of shafts (d)	Load capacity
6888-1	5.9x2.4x3.9"	16004 ZZ	1.65"DIA	.98-2.76" DIA	1100lb
6888-2	5.9x3.1x3.9"	6303 ZZ	1.85"DIA	.20-2.17" DIA	2200lb
6888-3	9.1x3.9x5.9"	6306 ZZ	2.83"DIA	2.76-7.87" DIA	2200lb

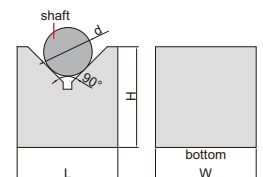
Part No.	W1	W2	h1	h2	h3	L1	L2	S
6888-1	.87"	1.73"	.79"	3.35"	.47"	3.94"	-	2.36"
6888-2	1.57"	2.36"	.87"	3.35"	.47"	3.94"	-	1.97"
6888-3	2.36"	3.15"	1.18"	4.88"	.79"	7.09"	3.54"	4.72"

GRANITE V-BLOCK SETS

- Two V-blocks per set



6897-1



Part No.	Size (LxWxH)	Range of shafts (d)	Parallelism of V groove to bottom	Height difference of a matchet pair
6897-1	2.8x2.0x2.8"	.24-2.95" DIA	.00016"	.00020"
6897-2	3.9x2.0x2.8"	.24-3.31" DIA	.00016"	.00020"

MAGNETIC V-BLOCKS (PROFESSIONAL TYPE)

**STRONG
MAGNETIC FORCE**

**HIGH
PRECISION**

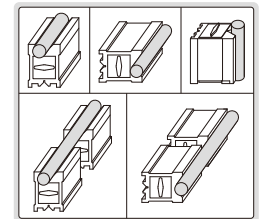
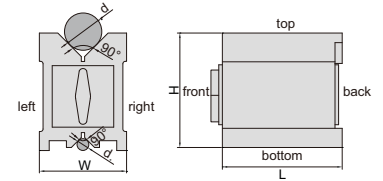
**HARDENED
SURFACES**

- 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



6889-11

6889-1



Individual

Part No.	Size (LxWxH)	Range of shafts (d)	Magnetic force	Parallelism of V groove to top, bottom, left, right sides	Squareness of V groove to back side
6889-11	3.0x2.2x3.0"	.20-1.57"DIA	187lbf	.00020"	.00020"
6889-33	5.9x3.0x3.9"	.20-2.76"DIA	419lbf	.00024"	.00024"

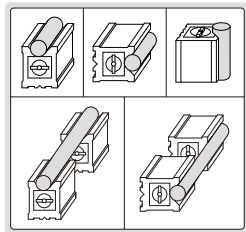
Matched pair

Part No.	Size (LxWxH)	Range of shafts (d)	Magnetic force	Parallelism of V grooves to top, bottom, left, right sides	Squareness of V grooves to back side	Height difference of a matched pair
6889-1	3.0x2.2x3.0"	.20-1.57"DIA	187lbf	.0002"	.0002"	.0002"
6889-2	3.9x2.8x3.7"	.20-2.56"DIA	330lbf	.0002"	.0002"	.0002"

MAGNETIC V-BLOCKS (ECONOMIC TYPE)

**ATTENTION:
NOT HARDENED**

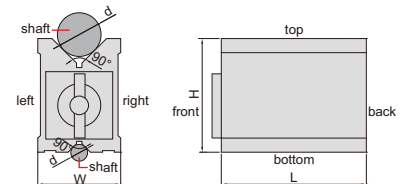
**ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACES,
OTHERWISE THE MAGNETIC FORCE WILL BE REDUCED**



6801-1201



6801-1



- Hold cylindrical workpieces for inspection and machining
- 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, otherwise the magnetic force will be reduced

Individual

Part No.	Size (LxWxH)	Range of shafts (d)	Magnetic force	Parallelism of V grooves to top, bottom, left, right side	Squareness of V grooves to back side
6801-1201	3.1x2.8x3.7"	.24-2.64" DIA	141lbf	.00040"	.00040"
6801-1202	3.9x2.8x3.7"	.24-2.64" DIA	176lbf	.00040"	.00040"
6801-1203	4.7x2.8x3.7"	.24-2.64" DIA	211lbf	.00040"	.00040"

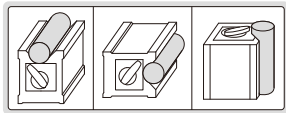
Matched pair

Part No.	Size (LxWxH)	Range of shafts (d)	Magnetic force	Parallelism of V grooves to top, bottom, left, right side	Squareness of V grooves to back side	Height difference of a matched pair
6801-1	3.1x2.8x3.7"	.24-2.64" DIA	141lbf	.00040"	.00040"	.00040"
6801-2	3.9x2.8x3.7"	.24-2.64" DIA	176lbf	.00040"	.00040"	.00040"
6801-3	4.7x2.8x3.7"	.24-2.64" DIA	211lbf	.00040"	.00040"	.00040"

MAGNETIC V-BLOCK (ECONOMIC TYPE)

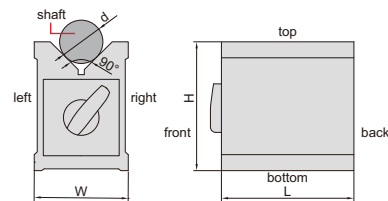
ATTENTION:
NOT HARDENED

ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACES,
OTHERWISE THE MAGNETIC FORCE WILL BE REDUCED



6890-702

- Squareness of V groove to back side .0004"
- Parallelism of V groove to top, bottom, left and right sides .0004"
- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- Not suitable for steel or iron surface, otherwise the magnetic force will be reduced

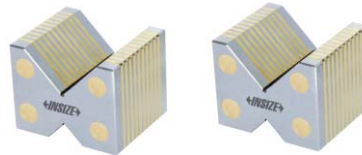


Part No.	Size (LxWxH)	Range of shafts (d)	Magnetic force
6890-702	2.8x2.4x2.9"	.24-1.73" DIA	123lbf

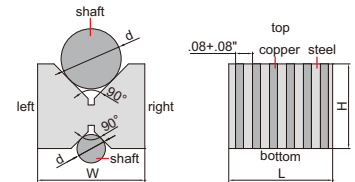
MAGNETIC INDUCTION V-BLOCK SET

ATTENTION: NOT HARDENED, DO NOT
ROTATE WORKPIECES ON V-BLOCKS

- 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
- Hardness HRB70
- Copper magnetic strips



6878-1



Part No.	Size (LxWxH)	Range of shafts (d)	Pole pitch	Parallelism of both V grooves to top and bottom sides	Height difference of a matched pair
6878-1	1.9x2.3x1.8"	.20-2.20" DIA	.08+.08"	.0004"	.0004"



MAGNETIC V-BLOCK SETS

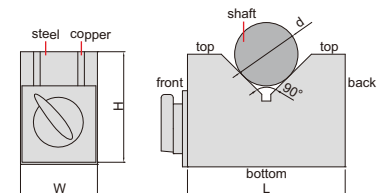
ATTENTION: LOW
MAGNETIC FORCE

ATTENTION: NO HARDENED SURFACE, DO
NOT ROTATE WORKPIECES ON V-BLOCKS

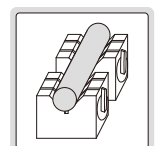
- Hold cylindrical workpieces for inspection, not suitable for machining due to low magnetic force
- Two V-blocks per set
- Hardness HRB70



6891-1



Part No.	Size (LxWxH)	Range of shafts (d)	Magnetic force	Parallelism of V groove to bottom and back sides	Height difference of a matched pair
6891-1	2.8x1.6x2.0"	.24-1.81" DIA	33lbf	.0004"	.0004"
6891-3	5.9x2.0x3.9"	.24-4.92" DIA	46lbf	.0004"	.0004"



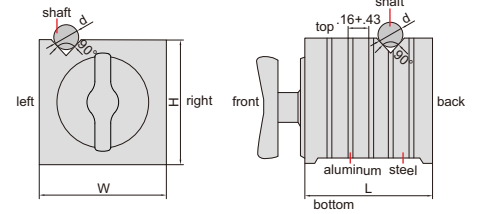
MAGNETIC SQUARE WITH V GROOVE

ATTENTION: NOT HARDENED, DO NOT ROTATE WORKPIECES ON V-BLOCKS

- Hold flat and cylindrical workpieces for inspection and machining
- Magnetic force on top, left, right and V grooves
- Parallelism and squareness of top, bottom, left, right and back .0008"
- Parallelism and squareness of V grooves to top, bottom, left, right and back .0008"



6539-100



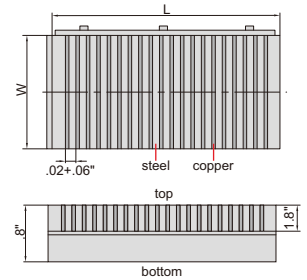
Part No.	Size (L×W×H)	Magnetic force of V grooves		Magnetic force of top, left and right sides		Range of shafts (d)
		On granite surface plate	On cast iron plate	On granite surface plate	On cast iron plate	
6539-100	3.9×3.9×3.9"	66lbf	55lbf	110lbf	66lbf	.2-1.2"

PERMANENT MAGNETIC CHUCK

ATTENTION: NOT HARDENED



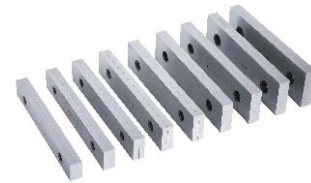
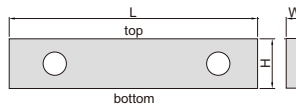
6537-400



Part No.	Table size (L×W)	Magnetic force	Pole pitch	Parallelism of top to bottom
6537-400	16×8"	113lbf/sq.in	.02+.06"	.0008"/12"

PARALLEL SETS

- Parallelism between top and bottom .0003"
- Height difference of a matched pair .0003"
- Hardened HRC55-62
- With two holes in each parallel



6532-9

Part No.	Quantity	Length (L)	Thickness (W)	Height (H)
6532-10	10 pairs	6"	1/8"	1/2, 5/8, 3/4, 7/8, 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2, 1-5/8"
6532-9	9 pairs	6"	1/4"	3/4, 7/8, 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2, 1-5/8, 1-3/4"

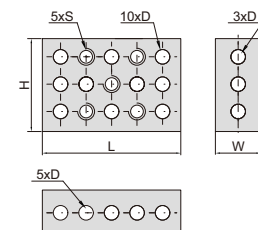
1-2-3/2-4-6 BLOCKS

- Parallelism .0004"
- Height difference of a matched pair .0004"
- Pairs of matched blocks for positioning and set-up
- Screws and wrench are included
- Hardness HRC 55-62

screws and wrench are included



6531-5



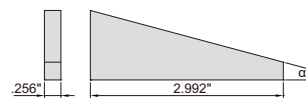
Part No.	Size (L×H×W)	Size accuracy	Squareness	S	D
6531-5	3x2x1"	±.0004"	.0003"/per inch	3/8-16UNC	.35" DIA
6531-8	6x4x2"	±.0005"	.0003"/per inch	5/8-11UNC	.63" DIA

ANGLE PLATE SETS

- Accuracy: ± 20 seconds
- For angle set-up in tooling, production and inspection
- Hardness HRC52



4006-12



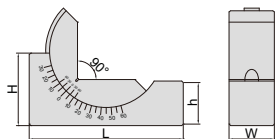
Part No.	Angle plates included	Angle α
4006-10	10 pcs	1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°
4006-12	12 pcs	1/4°, 1/2°, 1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°

ADJUSTABLE ANGLE BLOCKS



6535-30

- Made of hardened tool steel
- With locking screw
- Accuracy of angle: 10 minutes
- Graduation of angle: 10 minutes

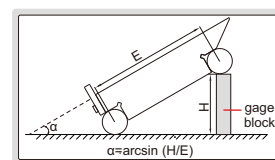
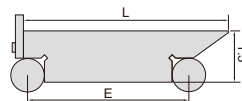


Part No.	Size (LxWxH)	h	Adjustable angle
6535-25	3.0x1.0x1.4"	.98"	30°~0°~60°
6535-30	4.0x1.2x1.9"	1.18"	30°~0°~60°

SINE BAR



4158-5

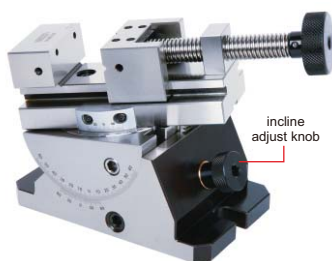


- Made of alloy tool steel

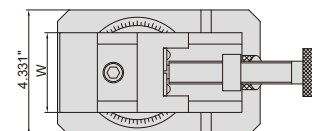
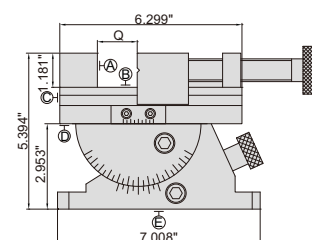
Part No.	Roller distance (E)	Table size (LxW)	Accuracy of α at 30°
4158-5	5"	6.2x1.2"	$\pm 5''$

PRECISION UNIVERSAL VISE

- Horizontal rotary: range 360°, graduation 0.05°
- Vertical incline: range 45°, graduation 0.05°
- With incline adjust knob
- Parallelism and squareness between A, B, C and D: 50 μ m/per inch, parallelism between D and E at 0°: 100 μ m/per inch
- Made of tool steel
- Hardness HRC56-58



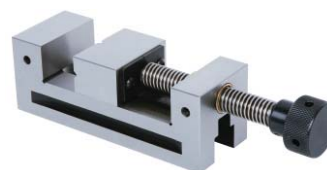
6521-80



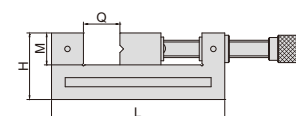
Part No.	Jaw opening (Q)	Jaw width (W)
6521-80	0-3.1"	2.756"

PRECISION VISES

- Parallelism: 80 μ m/per inch
- Squareness: 100 μ m/per inch
- Made of alloy steel, hardness HRC56-58



6520-73A



Part No.	Jaw opening (Q)	Jaw width (W)	L	H	M
6520-73A	0-2.9"	2.480"	6.929"	2.480"	1.181"
6520-76A	0-3.0"	2.874"	7.480"	2.874"	1.378"
6520-120A	0-4.7"	3.858"	10.039"	3.228"	1.575"

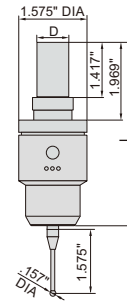
TRIGGER-TYPE 3D PROBE (AUDIBLE AND VISUAL ALARM) PART NO. 9410

IP67
WATERPROOF

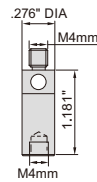
type-C charging cable (included)



signal extension cord (included)

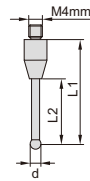


- Suitable for all kinds of machining centers, CNC boring machines, milling machines, drilling and tapping centers
- Suitable for workpiece detection of various solid materials
- Manually set the workpiece coordinates and machining reference points before CNC machining process
- In the process of CNC machining, manually detect and control key dimensions and position coordinates and their accuracy
- Detect the accuracy of the key size, shape and position of the workpiece after completion of CNC machining
- Standard .787" shank diameter, held by CNC
- LED indicator and buzzer indicate the trigger state of the probe
- Using lithium battery charging technology, no need to replace the battery
- The battery (5% utilization rate per shift) can be used continuously for 90 days
- Type-C interface
- Optional accessory: styli and extension bar



SPECIFICATION

Probe length (L)	4.547"
Shank diameter (D)	.787"
Trigger direction	±X, ±Y, +Z
Directional trigger protection stroke	X-Y: ±12°, Z: +.197"
Arbitrary one-way repeated trigger accuracy	≤.00004"
Trigger force in X-Y direction (with standard styli)	.067~.135lbf
Trigger force in Z direction	.899lbf
Dust/waterproof	IP67
Type-C charging cable	59"
Signal extension cord (provide signals to CNC)	39"



EXTENSION ROD (OPTIONAL)

Part No.	Material
9410-R1	ceramic

STYLI (OPTIONAL)

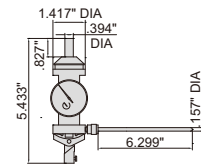
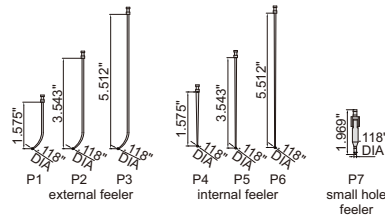
Part No.	L1	L2	d	Material of rod	Material of ball
9410-P1	.709"	.512"	.157"	stainless steel	ruby
9410-P2	.709"	.531"	.197"	stainless steel	ruby
9410-P3	.728"	.512"	.118"	stainless steel	ruby
9410-P4	.748"	.315"	.079"	carbide	ruby
9410-P5	.768"	.157"	.039"	carbide	ruby
9410-P6	1.969"	1.575"	.079"	carbide	ruby
9410-P7	1.969"	1.339"	.197"	ceramic	ruby
9410-P8	3.937"	3.386"	.236"	ceramic	ruby

* For stainless steel or carbide rods, it is recommended to use extension rods to protect spindles in case of break

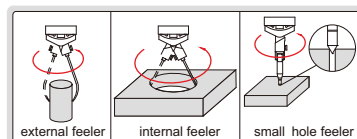
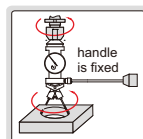
CENTERING INDICATOR



2385-3



- Provides quick and accurate centering in boring and milling set-up
- Maximum speed is recommended not to exceed 800RPM



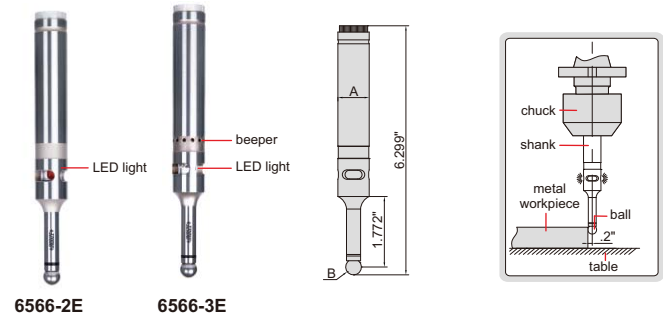
Part No.
2385-3

Feeler	Measuring diameter	Accuracy
P1	0-2.362" DIA	.00060"
P2	0-6.299" DIA	.00080"
P3	0-9.843" DIA	.00120"
P4	.126-3.150" DIA	.00060"
P5	.126-7.087" DIA	.00076"
P6	.126-11.024" DIA	.00120"
P7	0-.110" DIA	.00060"

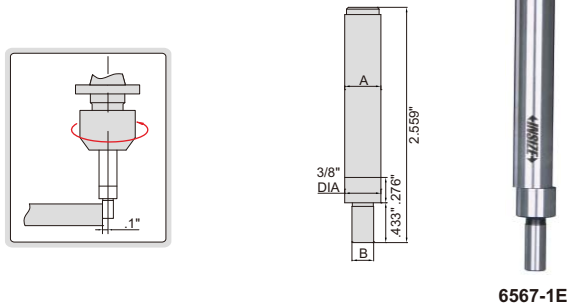
ELECTRONIC EDGE FINDERS

- Accuracy .0002"
- The shank is electrically conducted to the metal workpiece through the chuck and table, the LED lights up and the beeper sounds (only for 6566-3E), when the ball touches the workpiece
- Not suitable for rotary use
- Hardened shank and contact ball

Part No.	Shank (A)	Contact ball (B)	Beeper	Battery
6566-2E	3/4" DIA	.4" DIA	without	23A, 12Vx1 pc
6566-3E	3/4" DIA	.4" DIA	with	23A, 12Vx1 pc



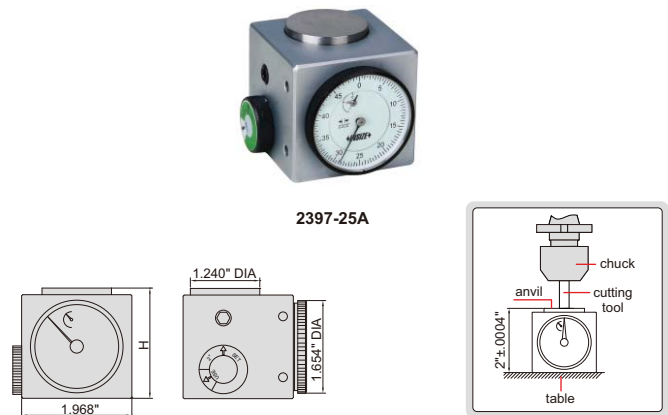
EDGE FINDER



- Hardened shank and contact point
- Suitable for machine speed 400~600rpm

Part No.	Shank (A)	Contact point (B)	Accuracy
6566-1E	3/8" DIA	.2" DIA	.0003"

ZERO SETTER

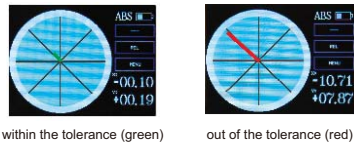


- Magnetic base

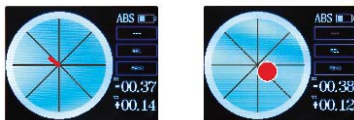
Part No.	Height (H)	Graduation	Accuracy	Test force
2397-25A	2"	.0005"	±.0004"	2lbf (at 2")

DIGITAL LEVEL PART NO. ISE-2DT

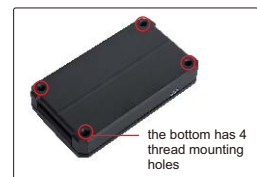
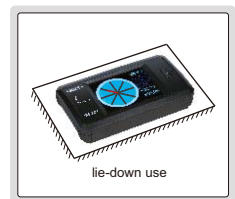
- Color LCD, touch panel
- X-Y axis measurement
- Set the tolerance and the display is shown in different colors



- To show the incline with line or bubble



DATA OUTPUT



SPECIFICATION

Measuring range	±30°
Resolution	0.1°, 0.01°, 0.1mm/m (=0.001in/ft)
Accuracy	±0.03° (range 0~3°) ±0.05° (range >3°)
Power supply	rechargeable battery
Dimension	4.53×2.60×.98"
Weight	.49lb

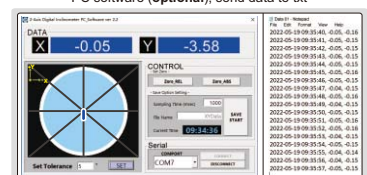
STANDARD DELIVERY

Main unit	1 pc
USB cable	1 pc

OPTIONAL ACCESSORY

Software	ISE-2DT-SOFTWARE
----------	------------------

PC software (optional), send data to txt



DUAI AXIS DIGITAL LEVEL AND GYRO ANGLE METER

AUDIBLE ALARM
WHEN OUT OF LIMIT

DISPLAY FLIPS OVER WHEN
THE BOTTOM FACES UP

BACKLIGHT



ATTENTION: HARD
PLASTIC CASE

DATA
OUTPUT

M4 threaded holes
on the back for fixing



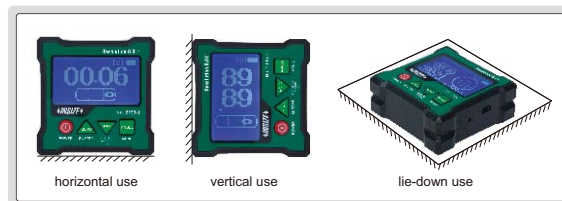
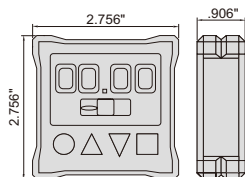
bluetooth (optional)



wired data transmission
(optional)



2199-1



horizontal use

vertical use

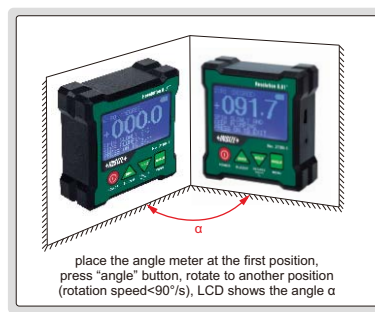
lie-down use



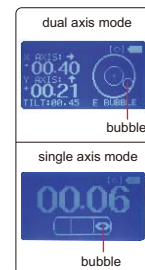
connect to mobile phone via bluetooth



connect to computer via wired data transmission



place the angle meter at the first position,
press "angle" button, rotate to another position
(rotation speed$90^{\circ}/s$), LCD shows the angle α
measurement of angle between two
planes in any direction (gyro technique)



dual axis mode

bubble

single axis mode

bubble

- Single axis/double axis level and slope meter, gyro technique can measure the angle between two planes in any direction
- Hard plastic case, with V-shaped grooves, four magnetic sides
- Display flips over when the bottom faces up
- Audible alarm when out of limit
- Buttons: POWER, ZERO, HOLD, display unit ($^{\circ}$, mm/m, %), MENU
- Rechargeable Li-ion battery 3.7V, operation time is 40 hours
- Automatic power off in 30 minutes
- Data output
- Optional accessory: wired data transmission (part no. 2199-A01), bluetooth (part no. 2199-A02), transmission distance is 32.8ft (under the condition of no obstruction and no electromagnetic interference)

Part No.	Range	Resolution	Accuracy
2199-1	single axis level: 4x90° dual axis level: $\pm 40^{\circ}$	0.01°	at 0° and 20°: $\pm 0.05^{\circ}$ at 20° and 70°: $\pm 0.15^{\circ}$ at 70° and 90°: $\pm 0.05^{\circ}$
	gyro angle meter: 360°	0.1°	$\pm 0.5^{\circ}$

DIGITAL LEVEL AND SLOPE METER



BUZZER ALARM
AT 0° AND 90°

WORKING TEMPERATURE
23°F~122°F

IP67
WATERPROOF

ABSOLUTE
LEVEL

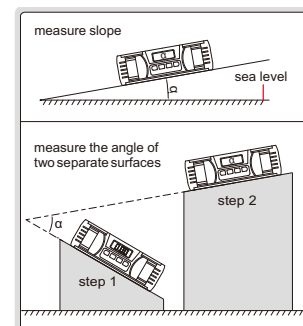
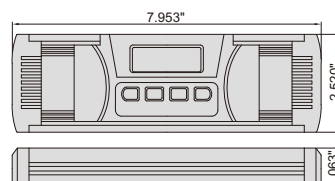
BACKLIGHT



2175-360

- IP67 dust/waterproof
- Used as level and slope meter
- Aluminum frame, shock absorbing rubber end caps
- 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, backlight/buzzer alarm, absolute and incremental measurement, unit ($^{\circ}$, %, mm/m), HOLD (keep the reading)
- Three AAA batteries
- Automatic power off

Part No.	Range	Resolution	Accuracy
2175-360	0-360° (90°x4)	0.05° (= .00625in/ft)	at 0°: $\pm 0.05^{\circ}$; at others: $\pm 0.1^{\circ}$



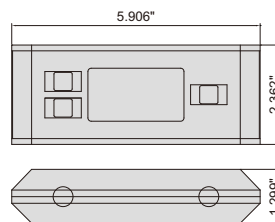
DIGITAL LEVEL AND SLOPE METER

IP54 WATERPROOF **ABSOLUTE LEVEL** **BACKLIGHT**

- IP54 dust/waterproof
- Used as level and slope meter
- Aluminum frame
- Magnetic bottom with V-groove for shafts
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm, unit (mm/m, %, in/ft), conversion, backlight
- Two AAA batteries
- Automatic power off



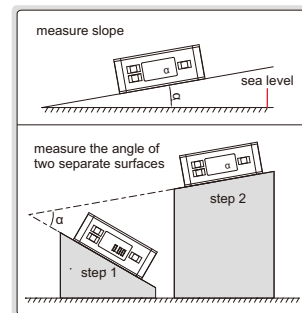
2179-360



BUZZER ALARM AT 0° AND 90°

WORKING TEMPERATURE 23°F~122°F

Part No.	Range	Resolution	Accuracy
2179-360	0~360° (90°x4)	0.05° (= .00625in/ft)	at 0° and 90° : ±0.1°; at others : ±0.2°

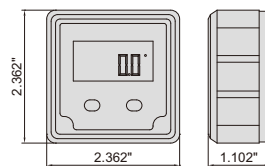


DIGITAL LEVEL AND SLOPE METER

- Used as level and slope meter
- 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



2170-1



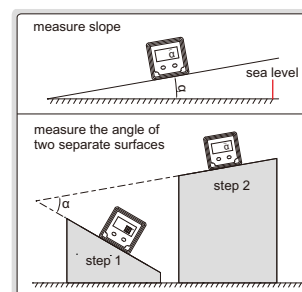
DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

WORKING TEMPERATURE 23°F~122°F

BACKLIGHT **ABSOLUTE LEVEL** **MAGNETIC BOTTOM**



Part No.	Range	Resolution	Accuracy
2170-1	4x90°	0.1° (= .021in/ft)	at 0° and 90° : ±0.1°; at others : ±0.2°



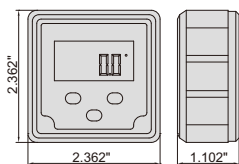
BLUETOOTH DIGITAL LEVEL AND SLOPE METER

DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

WORKING TEMPERATURE 23°F~122°F

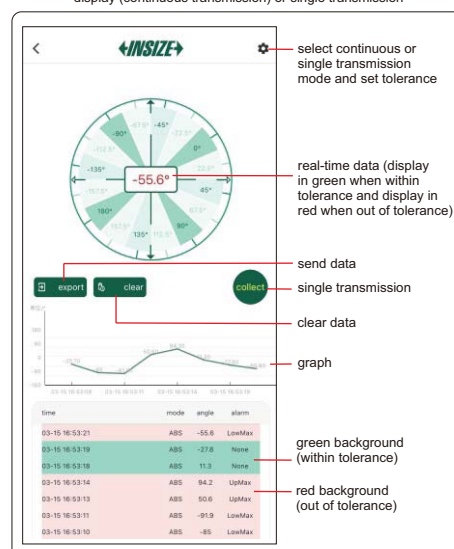
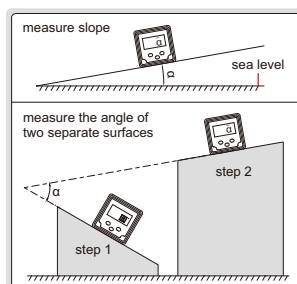
BACKLIGHT **ABSOLUTE LEVEL** **MAGNETIC BOTTOM**

- Used as level and slope meter
- 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 seconds after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, HOLD, absolute and incremental measurement
- Built-in bluetooth, transmission distance is 49.2ft (under the condition of no obstruction and no electromagnetic interference). Android and iPhone APP are included
- One AAA battery, automatic power off in 5 minutes



2198-2

Android and iPhone APP (included), can choose real-time display (continuous transmission) or single transmission



Part No.	Range	Resolution	Accuracy
2198-2	4x90°	0.1° (= .021in/ft)	at 0° and 90° : ±0.1°; at others : ±0.2°

FRAME LEVEL

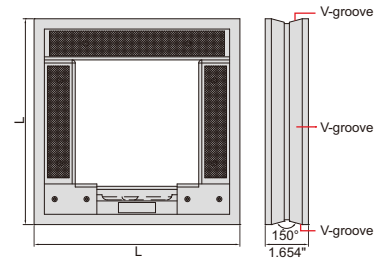
INSIZE PLUS
MADE IN ERROPE

NO NEED TO SET ZERO BEFORE USE

- No need to set zero before use
- Three V-grooves for shafts (shafts dia .760~4.563")
- With longitudinal vial



4906-200



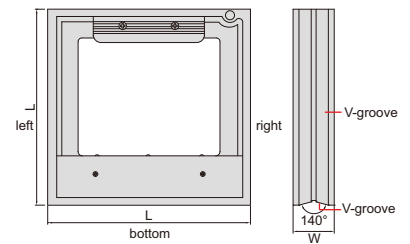
Part No.	Size (LxL)	Sensitivity
4906-200	8x8"	.00024in/ft (=0.001°)

FRAME LEVELS

- V-groove on bottom and left for shafts (shafts diameter .59~2.68")
- With transverse vial
- Supplied with adjusting wrench



4902-8



Part No.	Size (LxL)	W	Sensitivity
4902-6	6x6"	1.575"	.00024in/ft (=0.001°)
4902-8	8x8"	1.575"	.00024in/ft (=0.001°)
4902-12	12x12"	1.772"	.00024in/ft (=0.001°)

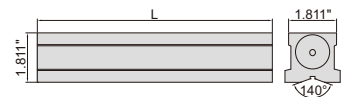
BLOCK LEVELS

- V-groove on bottom for shafts (shafts diameter .59~2.68")
- With transverse vial
- Supplied with adjusting wrench

POPULAR MODEL



4901-8



Part No.	Length (L)	Sensitivity
4901-6	6"	.00024in/ft (=0.001°)
4901-8	8"	.00024in/ft (=0.001°)
4901-12	12"	.00024in/ft (=0.001°)

BLOCK LEVEL

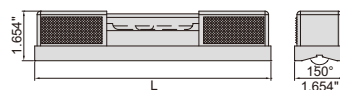
INSIZE PLUS
MADE IN ERROPE

NO NEED TO SET ZERO BEFORE USE



4905-200

- No need to set zero before use
- V-groove on bottom for shafts (shafts diameter .76~4.56")
- With longitudinal vial



Part No.	Size (L)	Sensitivity
4905-200	8"	.00024in/ft (=0.001°)

MINI LEVEL

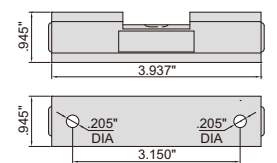
INSIZE PLUS
MADE IN ERROPE

NO NEED TO SET ZERO BEFORE USE



4908-100

- No need to set zero before use
- With mounting holes (for M5 screws)



Part No.	Length	Sensitivity
4908-100	4"	.0012in/ft (=0.0057°)

DIGITAL LEVEL AND SLOPE METERS

ABSOLUTE LEVEL

BACKLIGHT

WORKING TEMPERATURE
32°F ~ 122°F



both angle and slope are displayed

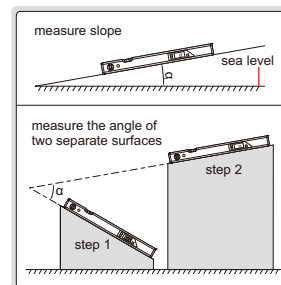
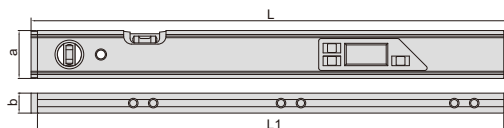


4910-400



4910-600

- With transverse and longitudinal vials
- Used as level and slope meter
- 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 (not for 4910-400), unit (mm/m, %, in/ft), conversion (not for 4910-400), backlight
- The display flips over when the bottom faces up
- Two AAA batteries
- Automatic power off



Part No.	Range	Resolution	Accuracy	Remark	L	L1	a	b
4910-400	0-360° (90°x4)	angle: 0.1°; slope : 1mm/m	±0.2°	both angle and slope are displayed	16.378"	15.748"	1.969"	.827"
4910-600	0-360° (90°x4)	at 0° and 90°: 0.05° (=0.00625in/ft); at others: 0.1° (=0.125in/ft)	at 0° and 90°: ±0.1°; at others: ±0.2°	at 0° and 90° buzzer alarm	23.622"	23.031"	2.362"	.984"

HANDY LEVEL

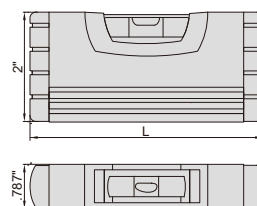
magnetic base surface



- Shockproof vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: 5°F~131°F



4912-100



LIFETIME WARRANTY VIALS

MAGNETIC BASE

packaging



Part No.	Size (L)	Accuracy
4912-100	4"	.006in/ft

HANDY LEVELS

LIFETIME WARRANTY VIALS

MAGNETIC BASE

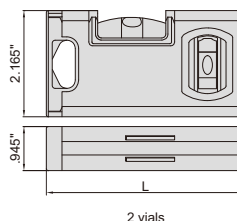


4922-100

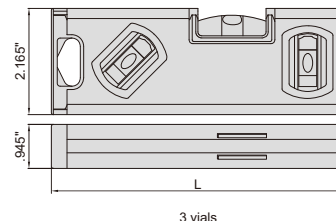


4922-150

- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: 5°F~131°F



2 vials



3 vials

Part No.	Size (L)	Accuracy	Number of vials
4922-100	4"	.006in/ft	2
4922-150	6"	.006in/ft	3
4922-200	8"	.006in/ft	3

CASTING ALUMINUM LEVEL

LIFETIME WARRANTY VIALS

MAGNETIC BASE

magnetic bottom surface (milled)



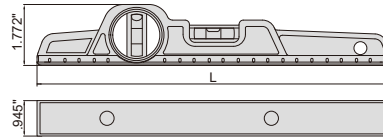
4913-250

packaging



- Shockproof horizontal and vertical vials
- Magnetic base
- Working temperature: 5°F~131°F
- Cast aluminum body

Part No.	Size (L)	Accuracy
4913-250	10"	.006in/ft



ALUMINUM LEVEL

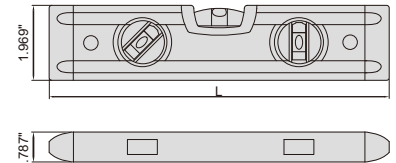
LIFETIME WARRANTY VIALS

MAGNETIC BASE

- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: 5°F~131°F



4921-230

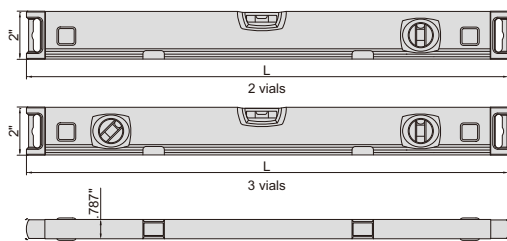


Part No.	Size (L)	Accuracy
4921-230	9"	.006in/ft

ALUMINUM LEVELS

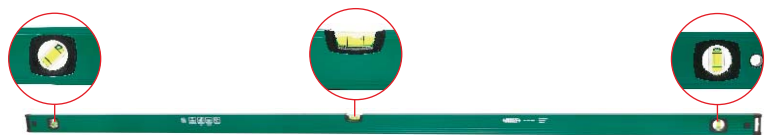
LIFETIME WARRANTY VIALS

MAGNETIC BASE



4914-600

- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: 5°F~131°F



4914-2000

Part No.	Size (L)	Accuracy	Number of vials
4914-300	12"	.006in/ft	2
4914-600	24"	.006in/ft	2
4914-800	32"	.006in/ft	2
4914-1000	40"	.006in/ft	2
4914-1200	48"	.006in/ft	2
4914-2000	80"	.006in/ft	3

magnetic bottom surface (milled)



ALUMINUM LEVELS

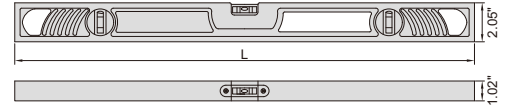
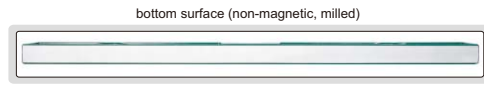
LIFETIME WARRANTY VIALS

- Accuracy .006in/ft
- Top and bottom working surfaces
- Shock-proof and UV-proof vials
- Die casting aluminum alloy frame
- Zero position of horizontal vial can be set
- One graduation of horizontal vial is 2% slope
- Working temperature: 5°F~131°F



4911-600

Part No.	Length (L)
4911-600	24"
4911-800	32"



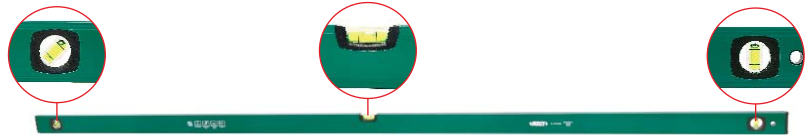
ALUMINUM LEVELS (BASIC TYPE)

LIFETIME WARRANTY VIALS

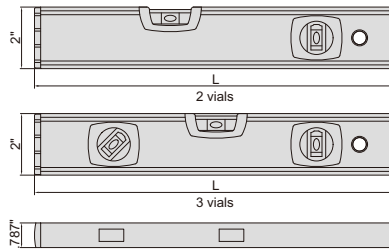
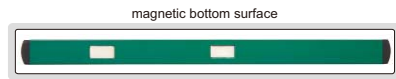
MAGNETIC BASE



4918-300



4918-2000



Part No.	Size (L)	Number of vials
4918-300	12"	2
4918-600	24"	2
4918-800	32"	2
4918-1000	40"	2
4918-1200	48"	2
4918-2000	80"	3

- Accuracy .012in/ft
- Shock-proof and UV-proof vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: 5°F~131°F

ALUMINUM LEVELS (WITH ROTARY VIAL)

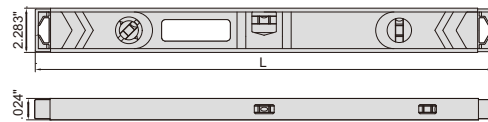
LIFETIME WARRANTY VIALS

- Shockproof and UV-proof vials
- Horizontal, vertical and rotary vials
- Rotary vial, range: 0°~360°, graduation: 5°
- Plumb window
- Shock-absorbing rubber end caps
- Working temperature: 5°F~131°F



4920-600

Part No.	Length (L)	Accuracy
4920-400	16"	.006in/ft
4920-600	24"	.006in/ft
4920-800	32"	.006in/ft
4920-900	36"	.006in/ft
4920-1000	40"	.006in/ft
4920-1200	48"	.006in/ft



CROSS-LINE LASER LEVEL PART NO. 4917-30



outdoor detector (optional)



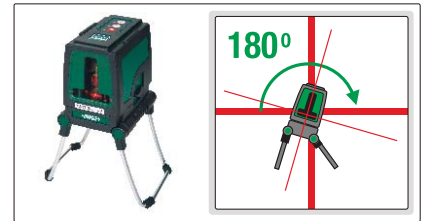
stand (included with outdoor detector)



IP54
WATERPROOF

AUDIBLE AND VISUAL
ALARM WHEN OUT OF $\pm 3^\circ$

folding legs for angle and height adjustment



- Red horizontal and vertical cross laser lines
- Self-leveling within $\pm 3^\circ$, self-leveling time within 4s, audible and visual alarm when out of $\pm 3^\circ$
- Folding legs for angle and height adjustment
- Outdoor use with the detector (part no. 4917-DETECTOR)

SPECIFICATION

Laser line width	.079 \pm .02"/16.4ft
Laser type	630~660nm, class II, <1mW
Beam angle	120 \pm 0.5°
Self-leveling range	$\pm 3^\circ$
Working distance	indoor: 98.4ft, outdoor: 164ft with detector (optional)
Accuracy	.0024"/ft
Operation temperature	14~104°F
Power supply	3×AA batteries, for 3 hours working
Dimension	3.94×3.23×4.09"
Weight	1.38lb

STANDARD DELIVERY

Main unit	1 pc
1/4" to 5/8" tripod adaptor	1 pc
Battery (AA)	3 pcs



VIDEO



application examples

OPTIONAL ACCESSORY

Outdoor detector	4917-DETECTOR
------------------	---------------

OUTDOOR DETECTOR (OPTIONAL)

Detecting distance	horizontal 3~164ft, vertical 3~98ft
Detecting accuracy	high accuracy $\pm 0.06"$, low accuracy $\pm 0.1"$
Power supply	9V battery
Dimension	6.61×2.28×1.18"
Weight	0.31lb (battery included)

*Use high accuracy detection mode within 49ft, use low accuracy detection mode over 49ft

SELF-LEVELING ROTARY LASER PART NO. GRL-L340

application examples



horizontal leveling

vertical leveling

working with detector

- Applicable fields: construction, decoration, pipeline and equipment installation
- Green laser beam rotates 360° horizontally or vertically
- Self-leveling range $\pm 5^\circ$ on both X and Y planes
- Alarm when inclination is out of $\pm 5^\circ$
- $\pm 5^\circ$ leveling range for manual mode on both X and Y planes
- 5 variable speeds 0-600rpm
- 6 scan modes
- Plumb up and plumb down dots
- Remote control for long distance
- Power supply: AC or DC

SPECIFICATION

Working range	indoor 160ft, outdoor 980ft (with detector)	
Self leveling range	$\pm 5^\circ$	
Horizontal/vertical beam accuracy	$\pm 0.0001"/1"$	
Main laser type	520~540nm, class 2, <1mW	
Auxiliary laser type	645~655nm, class 2, <1mW	
Rotating speed	0/60/120/300/600rpm	
Scanning range	0/10/45/90/180/360°	
Setting slope	X axis: $\pm 5^\circ$, Y axis: $\pm 5^\circ$	
Operation temperature	-4~122°F	
Maximum remote control distance	65ft	
Power supply	remote controller	2×1.5V AAA batteries
	main unit	NI-MH batteries or 4×1.5V C batteries
	detector	1×9V battery
Dimension	8.27×8.27×8.39"	
Weight	5.51lb	

IP65
WATERPROOF

INDICATOR FLASHING
WHEN OUT OF $\pm 5^\circ$



detector (included)



remote controller (included)



bracket for C battery (included)



beam finder glasses (included)



tripod (included)

STANDARD DELIVERY

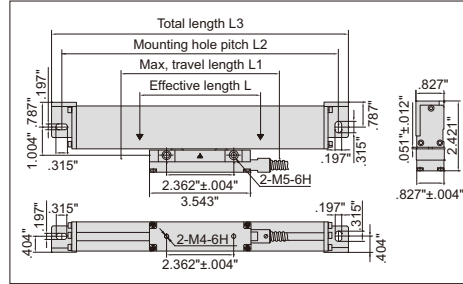
Main unit (including NI-MH batteries)	1 pc
C battery and bracket	1 set
Detector	1 pc
Remote controller	1 pc
Beam finder glasses	1 pc
Laser target	1 pc
Power adapter	1 pc
AAA battery	2 pcs
9V battery	1 pc
Tripod	1 pc

LINEAR SCALES (TTL SIGNAL)

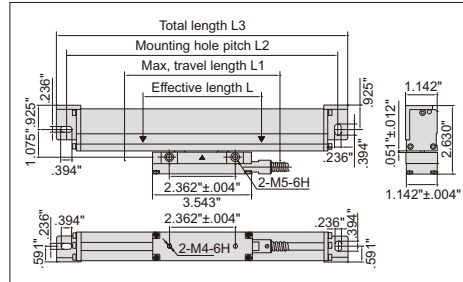


ISL-A5-300

Series ISL-A5



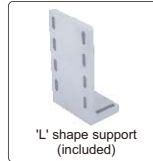
Series ISL-B5



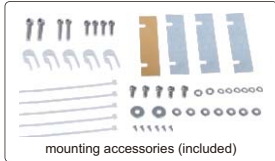
Effective length (L)	Series ISL-A5	
	Thin type	Part No.
8"/200mm		ISL-A5-200
10"/250mm		ISL-A5-250
12"/300mm		ISL-A5-300
14"/350mm		ISL-A5-350
16"/400mm		ISL-A5-400
18"/450mm		ISL-A5-450
20"/500mm		ISL-A5-500
24"/600mm		ISL-A5-600
30"/750mm		ISL-A5-750
32"/800mm		ISL-A5-800
40"/1000mm		ISL-A5-1000

Effective length (L)	Series ISL-B5	
	Thick type	Part No.
20"/500mm		ISL-B5-500
24"/600mm		ISL-B5-600
28"/700mm		ISL-B5-700
32"/800mm		ISL-B5-800
36"/900mm		ISL-B5-900
40"/1000mm		ISL-B5-1000
44"/1100mm		ISL-B5-1100
48"/1200mm		ISL-B5-1200
52"/1300mm		ISL-B5-1300
60"/1500mm		ISL-B5-1500
64"/1600mm		ISL-B5-1600
68"/1700mm		ISL-B5-1700
80"/2000mm		ISL-B5-2000

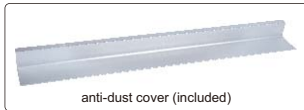
- Optical TTL (Through-The-Lens) detection. These optical TTL linear scales use an transistor logic to transmit and record high-resolution distance measurements. They are the most accurate type of encoder and are paired with ISL-DR2/DR3 and ISL-LCD7 (digital readout).



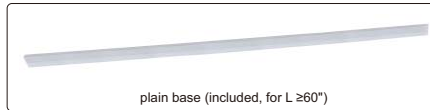
L' shape support (included)



mounting accessories (included)



anti-dust cover (included)



plain base (included, for L ≥ 60")

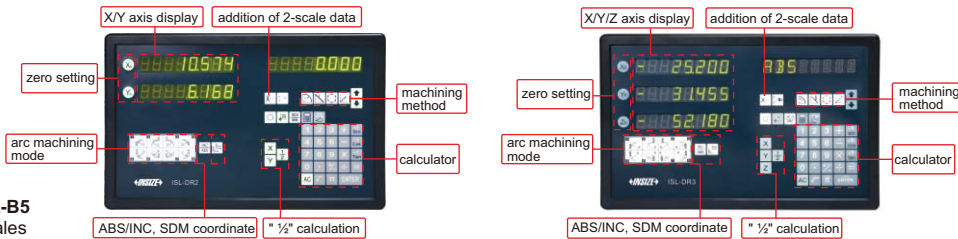
SPECIFICATION

Part No.	Series ISL-A5		Series ISL-B5	
	L1 (inch)	L+1.18" (L<38")	L+1.97" (L≥38")	L+1.18" (L<38")
L2 (inch)	L+5.20" (L<38")	L+5.98" (L≥38")	L+5.35" (L<38")	L+6.14" (L≥38")
L3 (inch)	L+5.87" (L<38")	L+6.65" (L≥38")	L+6.06" (L<38")	L+6.85" (L≥38")
Resolution	.0002"		.0002"	
Max. response speed	295ft/min		196ft/min	
Scale grating pitch	787µin			
Scale reference point pitch	1.97"			
Accuracy	±(197+5L)µin L is the effective length in inch			
Cable length	140" (L: 2-38"), 200" (L: 40-60"), 400" (L: 64-128")			
Output signal	TTL			
Socket	9PD			
Power supply	5±0.5V			

STANDARD DELIVERY

Main unit	1 pc
L' shape support	1 pc
Anti-dust cover	1 pc
Plain base	1 pc (for L≥60")
Mounting accessories	1 package

DIGITAL READOUTS



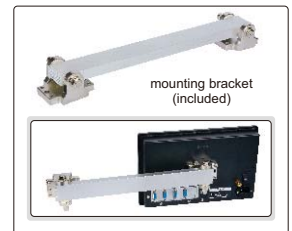
- For ISL-A5, ISL-B5 series linear scales

ISL-DR2

ISL-DR3



software flash disk (included)



mounting bracket (included)

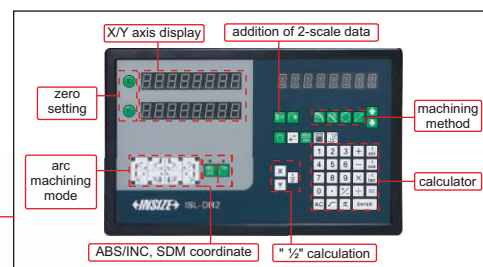
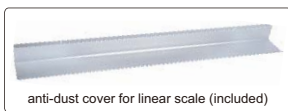
SPECIFICATION

Part No.	ISL-DR2	ISL-DR3
Application	two-axis	three-axis
Scale input ports	2	3
Resolution	.000002", .000005", .00001", .00002", .00005", .0001", .0002", .0005", .001", .002"	
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, "1/2" calculation, detecting RI, bolt-hole circle machining, ramp circle machining	
Power supply	110/220V, 50/60Hz	
Dimension	11.61×7.28×1.77"	
Weight	3.20lb	

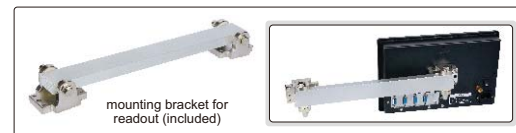
STANDARD DELIVERY

Main unit	1 pc
Mounting bracket	1 pc
Ground cable	1 pc
RS232C cable	1 pc
Software flash disk for RS232C	1 pc

LINEAR SCALE AND READOUT SET FOR LATHE PART NO. ISL-SET1



- Optical TTL (Through-The-Lens) detection. These optical TTL linear cales use an transistor logic to transmit and record high-resolution distance measurements.



READOUT SPECIFICATION

Application	two-axis
Scale input ports	2
Resolution	.00005"
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, "1/2" calculation, detecting RI, bolt-hole circle machining, ramp circle machining
Power supply	110/220V, 50/60Hz
Dimension	11.61×7.28×1.77"
Weight	3.20lb

LINEAR SCALE SPECIFICATION

X-axis	8"
Y-axis	40"
Max. response speed	164ft/min
Scale grating pitch	787µin
Scale reference point pitch	1.97"
Accuracy	±(197+5L)µin L is the effective length in inch
Cable length	8" scale: 140", 40" scale: 200"

STANDARD DELIVERY

Readout box	1 pc
8" linear scale	1 pc
40" linear scale	1 pc
Mounting bracket for readout	1 pc
Ground cable for readout	1 pc
RS232C cable for readout	1 pc
Software flash disk for RS232C of readout	1 pc
'L' shape support for linear scale	1 pc
Anti-dust cover for linear scale	1 pc
Mounting accessories for linear scale	1 package

DIGITAL HORIZONTAL SCALES

DATA OUTPUT

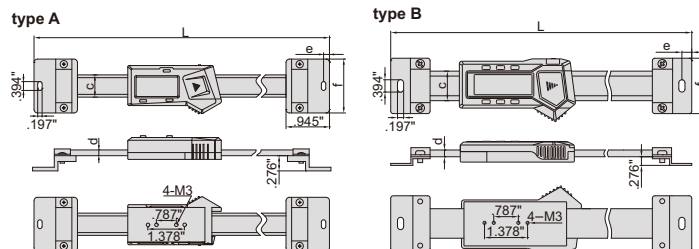
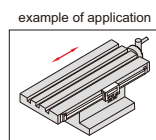


7101-300A

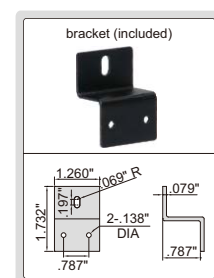


7101-400A

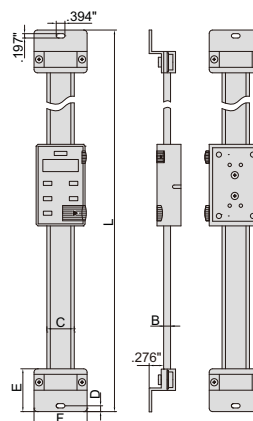
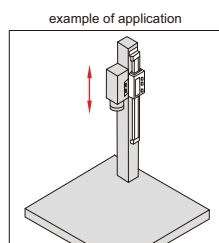
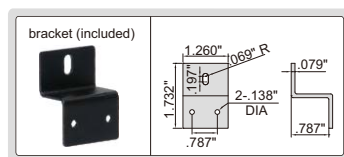
- Non waterproof
- Resolution .0005"/0.01mm
- Button type A: on/off, zero, inch/mm, type B: on/off, zero, inch/mm, ABS, data preset
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Supplied with bracket to be mounted on the back



Part No.	Range	Type	Accuracy	L	c	d	e	f	Data output cable (optional)
7101-100A	4"/100mm	A	±.0010"	8.465"	.630"	.157"	.236"	1.417"	7315-21, 7302-21, 7305-21
7101-150A	6"/150mm	A	±.0015"	10.433"	.630"	.157"	.236"	1.417"	7315-21, 7302-21, 7305-21
7101-200A	8"/200mm	A	±.0015"	12.402"	.630"	.157"	.236"	1.417"	7315-21, 7302-21, 7305-21
7101-300A	12"/300mm	A	±.0015"	17.520"	.630"	.157"	.236"	1.417"	7315-21, 7302-21, 7305-21
7101-400A	16"/400mm	B	±.0020"	23.228"	.945"	.217"	.315"	1.772"	7315-22, 7302-22, 7305-22
7101-500A	20"/500mm	B	±.0020"	27.165"	.945"	.217"	.315"	1.772"	7315-22, 7302-22, 7305-22
7101-600A	24"/600mm	B	±.0030"	31.102"	.945"	.217"	.315"	1.772"	7315-22, 7302-22, 7305-22
7101-800A	32"/800mm	B	±.0040"	38.976"	.945"	.217"	.315"	1.772"	7315-22, 7302-22, 7305-22
7101-1000A	40"/1000mm	B	±.0040"	46.819"	1.220"	.413"	.394"	2.362"	7315-22, 7302-22, 7305-22



DIGITAL VERTICAL SCALES



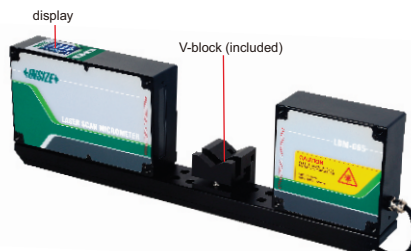
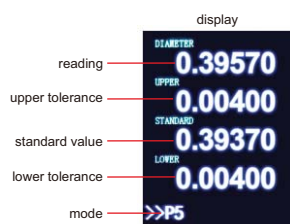
DATA OUTPUT

7102-300

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm, ABS/INC, data hold, TOL, set
- Battery LR44
- Made of stainless steel
- Data output
- Supplied with bracket to be mounted on the back
- Optional accessory: wireless transmitter (part no. 7315-1150), data output cable (part no. 7302-SPC7, keyboard format), data output cable (part no. 7305-1150, serial port format)

Part No.	Range	Accuracy	B	C	D	E	F	L
7102-150	6"/150mm	±.0015"	.157"	.787"	.236"	.945"	1.575"	11.654"
7102-300	12"/300mm	±.0015"	.157"	.787"	.236"	.945"	1.575"	17.520"
7102-500	20"/500mm	±.0020"	.217"	.945"	.315"	1.260"	1.772"	26.969"

LASER SCAN MICROMETER

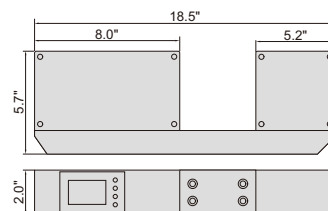


LDM-065

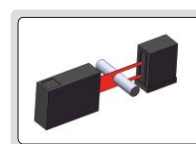
- Measure external diameter, ellipticity, run-out, maximum diameter of tools, etc.
- Can be used for transparent or non transparent workpieces
- Tolerance measurement
- Online or offline measurement
- Connected with computer and PLC

SPECIFICATION

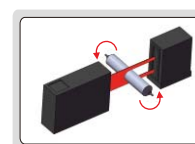
Part No.	LDM-065
Measuring range	.02~2.5"
Resolution	.00001"/.0001"/.001"/.01" selectable
77°F accuracy	±(.00002"+.01%D)", D is measuring diameter in inch
Repeatability	±(0.00001"+.005%D)", D is measuring diameter in inch
Laser wave length	650nm
Measuring speed	800~3200times/s (adjustable)
Operation temperature	32~122°F
Operation humidity	35~85RH without condensation
Output	dual channel RS485
Alarm output	24V, 1A
Power supply	DC24V, 2A
Dimension (L×W×H)	18.5×2.0×5.7"
Weight	17.6lb



calibration gage (optional)



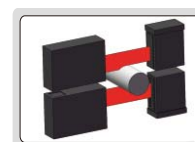
measure external diameter



measure ellipticity and run-out



two-axis measurement



large size measurement

STANDARD DELIVERY

Main unit	1 pc
V-block	1 pc
AC/DC adapter	1 pc
RS485 cable	1 pc

OPTIONAL ACCESSORY

Calibration gage	custom made
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JIGS FOR CMM (ANVIL .10" DIA)

CAN BE CUSTOMIZED



Part No.	Product	Remark
ISY-200	jig set	Including 1 pc ISY-200-1, 1 pc ISY-200-2, 1 pc ISY-200-3, 1 pc ISY-200-4, 1 pc ISY-200-5 and 2 pcs ISY-200-6

Part No.	Product	Size	Hole size
ISY-200-3	base plate	11.81×11.81×.47"	M8

Part No.	Product	Size	Anvil area	Anvil stroke
ISY-200-1	spring anvil	2.36×1.57×2.24"	.81×.98"	.55"
ISY-200-2	adjustable spring anvil (range 0-.79")	2.76×1.57×2.24"	.81×.98"	.55"

Part No.	Product	Size
ISY-200-4	guide	11.81×1.57×1.06"
ISY-200-5	two-way adjustable stand	4.33×4.33×5.59"
ISY-200-6	clamp handle	—

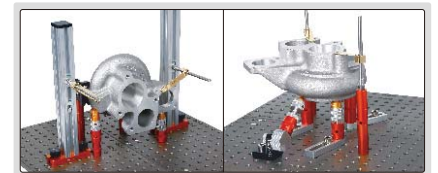
JIG SET FOR CMM PART NO. ISY-100



ISY-100

Product	Part No.	Size	Quantity	Application
stand	ISY-100-1001	.63" DIA×1.18"	5	
	ISY-100-1002	.63" DIA×1.97"	5	
	ISY-100-1003	.63" DIA×3.94"	3	
stand	ISY-100-1004	.79" DIA×1.18"	5	
	ISY-100-1005	.79" DIA×1.97"	5	
	ISY-100-1006	.79" DIA×3.94"	3	
stand with fine adjustment	ISY-100-2001	.63" DIA× 1.77~2.36"	2	height adjustment: 1.81~2.36"
stand with fine adjustment	ISY-100-2003	.79" DIA× 1.77~2.36"	2	

application examples











To be continued

Continued from previous page

Product	Part No.	Size	Quantity	Application
horizontal spring stand 	ISY-100-4001	—	2	
horizontal screw stand 	ISY-100-5001	—	2	
magnetic stand (magnetic top surface) 	ISY-100-7001	.79" DIA×.98"	3	
stand for slice parts 	ISY-100-8001	.79" DIA×.98"	2	ISY-100-8001 and ISY-100-8002 use cooperatively 
clamping stand for slice parts 	ISY-100-8002		1	
clip 	ISY-100-1201	—	2	
clip 	ISY-100-1301	—	2	
clip stand 	ISY-100-1401	.24" DIA×2.36"	2	
	ISY-100-1402	.24" DIA×3.94"	2	
vertical square column 	ISY-100-3003	1.18×1.18×9.84"	2	
sliding support plate 	ISY-100-1801	3.07×.79×.39"	3	
clamping screw 	ISY-100-2301	.31" DIA×.79"	6	
screw 	ISY-100-2302	.31" DIA×.79"	6	
base plate 	ISY-600-400200	15.75×15.75×.47" hole size: M8×1.25mm hole center distance .79"	2 pieces /per set	—
wrench 	ISY-100-3701	.15" DIA×2.76"	1	—
wrench 	ISY-100-3801	M2.5mm	1	—
	ISY-100-3802	M5mm	1	—
	ISY-100-3803	M6mm	1	—

Product	Part No.	Size	Quantity	Application
45° stand 	ISY-100-9001	—	2	
V shaped support 	ISY-100-1901	—	2	
V shaped support 	ISY-100-1902	—	2	
marker 	ISY-6100-1501	—	52*	
dust cleaner 	ISY-100-3501	—	1	—
lubricating oil 	ISY-100-3601	—	1	—

* Letter A~Z, number 0~25

Product	Part No.	Quantity	Material	Application
support head 	ISY-100-27016	2	aluminum	
	ISY-100-27018	2	nylon	
support head 	ISY-100-27026	2	aluminum	
	ISY-100-27028	2	nylon	
support head 	ISY-100-27036	2	aluminum	
	ISY-100-27038	2	nylon	
support head 	ISY-100-27046	2	aluminum	
	ISY-100-27048	2	nylon	
support head 	ISY-100-27056	2	aluminum	
	ISY-100-27058	2	nylon	
support head 	ISY-100-27066	2	aluminum	
	ISY-100-27068	2	nylon	
support head 	ISY-100-27076	2	aluminum	
	ISY-100-27078	2	nylon	

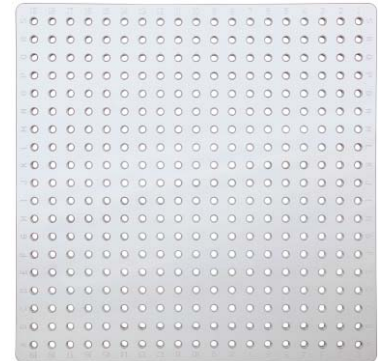
JIG SET FOR CMM PART NO. ISY-600



application example



acrylic tray (included)



ISY-600

Product	Part No.	Size	Quantity
	ISY-600-80001	.472" DIA×1.969"	6
	ISY-600-80002	.472" DIA×1.181"	6
	ISY-600-80007	.472" DIA×.787"	6
	ISY-600-80003	.63" DIA×1.969"	6
	ISY-600-80004	.63" DIA×1.181"	6
	ISY-600-80008	.63" DIA×.787"	6
	ISY-600-80005	.787" DIA×1.969"	6
	ISY-600-80006	.787" DIA×1.181"	6
	ISY-600-80009	.787" DIA×.787"	6
	ISY-600-800010	—	2
	ISY-600-800012	—	2
	ISY-600-800013	.787" DIA×2.165"~3.071"	2
	ISY-600-800014	.787" DIA×.787"	4
	ISY-600-800015	.787" DIA×.787"	2
	ISY-600-800016	.787" DIA×.591"	6
	ISY-600-800017	—	2

Product	Part No.	Size	Quantity
	ISY-600-800018	.787" DIA×.984"	2
	ISY-600-800019	—	6
	ISY-600-800020	2.677×.787×.394"	6
	ISY-600-80021	.472×2.756"	5
	ISY-600-80022	—	2
	ISY-600-80023	.236" DIA×3.150"	2
	ISY-600-80024	.236" DIA×1.575"	3
	ISY-600-80025	—	3
	ISY-600-80026	—	3
	ISY-600-80027	.315" DIA×1.890"	2
	ISY-600-80028	15.748×15.748×.591" hole size: M8×1.25mm	1

TOOL PRESETTER (BASIC TYPE) PART NO. TLP-300H



- Absolute linear scales, zero setting is not needed after power on and off

SPECIFICATION

Part No.	TLP-300H
Maximum tool diameter (X axis)	11.81" DIA
Height measuring range	2.36"~11.81"
Repeatability	.0002"
Measuring accuracy	.0008"
Linear scale resolution	.0002"
Dial indicator graduation	0.01mm
Spindle holder	BT50
Power supply	110/220V, 50/60HZ
Dimension (L×W×H)	23.62x14.37x27.17"
Weight	150lb

STANDARD DELIVERY

Main unit	1 pc
BT50 spindle holder	1 pc
Standard rod	1 pc
Dial indicator	2 pcs
Wrench	1 set
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

BT50/BT30 converter	TLP-300H-C1
BT50/BT40 converter	TLP-300H-C2

PROFILE PROJECTOR PART NO. ISP-Z3015



OPTIONAL ACCESSORY



To be continued

Continued from previous page

SPECIFICATION

Part No.		ISP-Z3015			
Lens	magnification	10X (included)	20X (optional)	50X (optional)	100X (optional)
	view field	1.18" DIA	.59" DIA	.24" DIA	.12" DIA
	working distance	3.06"	1.74"	1.51"	1.00"
Max. workpiece height		3.54"	3.54"	3.54"	3.54"
Magnification accuracy		±0.08%			
Image		erect image			
Projector screen		diameter: 12" DIA			
		rotation range: 0°~360°, resolution: 1" or 0.01°			
		reference lines: cross-hairs			
Stage	metal stage size	13.39×5.98"			
	glass stage size	7.72×3.78"			
	X-Y stage travel	range: 6×2"			
		resolution .00002"			
	Z (focus) travel range	accuracy: (157.5+40L)µin L is the measuring length in inch			
max. load capacity	8.82lb				
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable			
		surface illumination: 24V/150W halogen lam			
Data processing unit	display	X-Y stage travel, screen rotation			
	output	RS232C			
	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			
Power supply		110/220V, 50/60Hz			
Dimension (L×W×H)		21.65×30.31×43.31"			
Weight		297lb			

STANDARD DELIVERY

Main unit	1 pc
10X lens with half-reflection mirror and oblique illuminator mirror	1 pc
Overlay chart clip	4 pcs
Foot-switch	1 pc
Anti-dust cover	1 pc
USB cable	1 pc

OPTIONAL ACCESSORY

20X lens with half-reflection mirror 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/1.97" reading scale	ISP-Z3015-SCALE50
300mm/11.81" calibration scale	ISP-Z3015-RULE
Blue filter	ISP-Z3015-FILTER
Demo sample	ISP-Z3015-DEMO

QUICK MEASUREMENT SYSTEM (WITHOUT STITCHING)

NOTE: NOT SUITABLE FOR SMALL SIZES SUCH AS THREADS, CHAMFERS, ETC



11.6" LCD (optional)

- One or more workpieces can be measured by one step operation
- Place workpieces at any position
- Focus and measure automatically
- Measurement of 999+dimensions and 200+workpieces
- Suitable for measuring small flat parts

QMS-A110-U

SPECIFICATION

Part No.	QMS-A110-U	
Optical lens	low-distortion lens, single-field telecentric 3.94" DIA	
View field range	3.94×3.15"	
Measurement range (X×Y)	3.86×3.07"	
Measurement accuracy*	±.00012"	
Repeatability	±.00004"	
Max. weight of workpiece	11lb	
Measurement time	<2s	
Measurement data	2D measurement	
Power supply	110V, 50Hz, 600W	
Illumination system	back light	telecentric illuminator, green light
	ring light	4-zone circular white high light circular (directional) low-angle green light (electric)
	coaxial light (optional)	vertical illuminator, white light
Environmental requirement	temperature: 68°F±3.6°F, relative humidity: 30%~80%, vibration: <.00007oz, less than 15Hz	
Dimension (L×W×H)	22.83×9.25×31.10"	
Weight	88lb	

* The optimum temperature is 68°F±1.8°F
Within 3.15×2.52", on focal position and environment temperature at 68°F±1.8°F

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Software	1 pc

OPTIONAL ACCESSORY

Coaxial light illumination	QMS-23-A3
Data transmission function of software	QMS-23-D1
CAD import function of software	QMS-23-C1
Foot-switch	QMS-43-FS1
11.6" LCD	QMS-23-B1 (must be installed in factory)

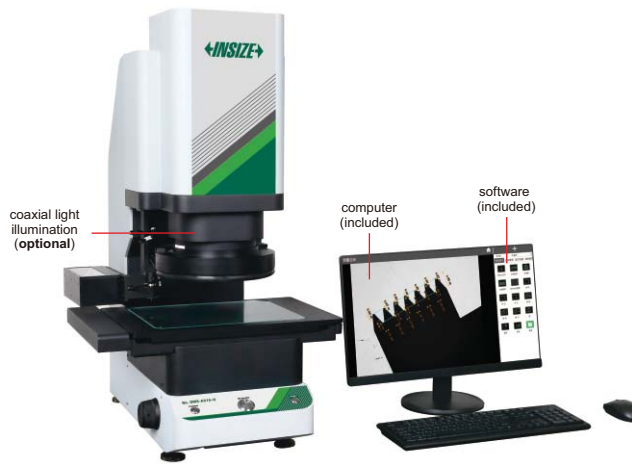
Software (included)

- Automatically measure widths, holes, rings, angles at the same time, simple and efficient.
- Measuring result can be stored automatically. OK items and NG items can be counted automatically.



QUICK MEASUREMENT SYSTEM (WITH STITCHING)

NOTE: NOT SUITABLE FOR SMALL SIZES SUCH AS THREADS, CHAMFERS, ETC



QMS-A315-U



11.6" LCD (optional)

- One or more workpieces can be measured by one step operation
- Place workpieces at any position
- Focus and measure automatically
- Measurement of 999+ dimensions and 200+workpieces
- Suitable for small and medium-size parts with high precision requirements

SPECIFICATION

Part No.	QMS-A315-U	
Optical lens	dual-field dual-telecentric low-distortion lens	
	wide view field: 3.94" DIA small view field: .98" DIA	
View field range	wide view field	small view field
	3.94×3.15"	.98×.79"
Measurement range	11.81×7.87"	9.06×5.12"
Measurement accuracy	without stitching	±.00012" ①
	with stitching	±(200+20L)µin ③
Repeatability	without stitching	±.00004" ②
	with stitching	±.00008" ④
Max. weight of workpiece	11lb	
Measurement time	<2s	
Measurement data	2D measurement	
Power supply	110V, 50Hz, 600W	
Illumination system	back light	telecentric illuminator, green light
	ring light	4-zone circular white high light circular (directional) low-angle green light (electric)
	coaxial light (optional)	vertical illuminator, white light
Environmental requirement	temperature: 68°F±3.6°F, relative humidity: 30%~80%, vibration: <.00007oz, less than 15Hz	
Dimension (L×W×H)	20.94×19.57×30.16"	
Weight	132lb	

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Software	1 pc

OPTIONAL ACCESSORY

Coaxial light illumination	QMS-23-A3
Data transmission function of software	QMS-23-D1
CAD import function of software	QMS-23-C1
Laser sensor	QMS-43-SJ1
Foot-switch	QMS-43-FS1
11.6" LCD	QMS-23-B1 (must be installed in factory)

* The optimum temperature is 68°F±1.8°F

① Within 3.15×2.52", on focal position and environment temperature at 68°F±1.8°F

② Within .79×.63", on focal position and environment temperature at 68°F±1.8°F

③ Within 10.63×7.09", on focal position, environment temperature at 68°F±1.8°F, and workpiece is less than 4lb, L is the travel of stage in inch

④ Within 8.15×4.61", on focal position, environment temperature at 68°F±1.8°F, and workpiece is less than 4lb, L is the travel of stage in inch

Software (included)

- Automatically measure widths, holes, rings, angles at the same time, simple and efficient.
- Measuring result can be stored automatically. OK items and NG items can be counted automatically.



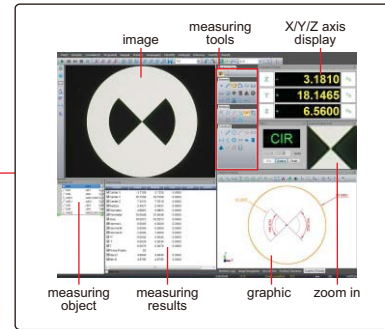
VISION MEASURING SYSTEMS (MANUAL TYPE)

INSPECTION
CERTIFICATE



ISD-V250A

computer is included

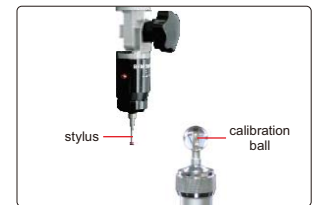


SPECIFICATION

Part No.	ISD-V150A	ISD-V250A	ISD-V300A
Measuring range (X×Y×Z)	6×4×6"	10×6×6"	12×8×6"
Stage size	13.94×8.98"	17.72×11.02"	19.69×12.99"
Glass stage size	8.27×6.30"	12.05×7.72"	13.78×9.84"
Resolution of X/Y/Z axis	.00002"		
Accuracy of X/Y axis	≤(137.8+10L)μin (L is the measuring length in inch)		
Repeatability of X/Y axis	.00008"		
Objective	0.7X~4.5X (zoom)		
Working distance	3.62"		
Magnification	33X~195X (on 19" monitor)		
Camera	1/3" color CCD, 0.3M pixel		
Illumination	surface and contour with adjustable LED		
Max. height of workpiece	6"		
Max. weight of workpiece	44lb		
Operation system	Windows 7/8/10		
Drive method	manual		
Power supply	110/220V, 50/60Hz		
Dimension (L×W×H)	22.05×21.26×33.46"	29.92×23.62×35.43"	29.92×23.62×35.43"
Weight	220lb	264lb	308lb



lens with coaxial light
(optional, must be installed in factory)



probe (optional), includes Ø2mm/.079" DIA and Ø3mm/.118" DIA styli, Ø25mm/.984" calibration ball, measuring accuracy is .0004"

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Calibration glass chart	1 pc
Clay	1 pc
Foot switch	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

0.5X auxiliary objective	Part No. ISD-V-OB05X Working distance: 6.89" Magnification: 16.5~97.5X (on 19" monitor)
2X auxiliary objective	Part No. ISD-V-OB2X Working distance: 1.42" Magnification: 66~390X (on 19" monitor)
Probe	Part No. ISD-V-PROBE includes Ø2mm/.079" DIA and Ø3mm/.118" DIA styli, Ø25mm/.984" calibration ball
Vision measuring system with coaxial light lens (with computer)	Part No. ISD-V150ACL, ISD-V250ACL, ISD-V300ACL
Office software	Part No. 7313-OFFICE

SOFTWARE

- Operation system: Windows 7/8/10
- Language: English
- Single measuring tools:

- measure coordinate of point
- measure center coordinate and axis length of ellipse
- measure length of open curve
- measure distance of two elements

- measure center coordinate, diameter and area of circle
- measure length, width and area of rectangle
- measure length and area of closed curve

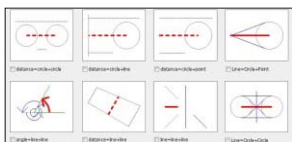
- measure distance between two points
- measure length, width and diameter of key slot
- measure angle of two lines

- measure length and diameter of arc
- measure width and diameter of ring
- measure focus distance of urface

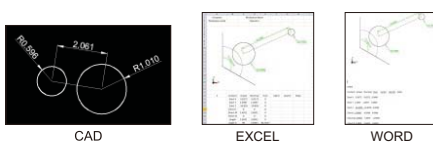
To be continued

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■ Measuring and element construct methods:



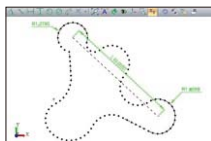
■ Export to CAD, EXCEL, WORD



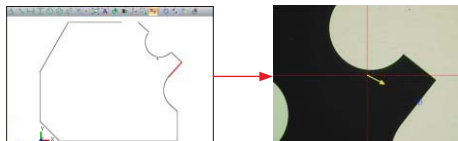
■ Edge-detection:



■ Contour scanning:

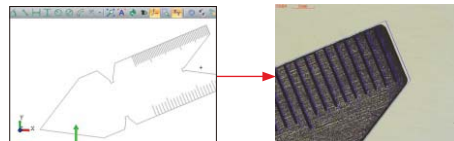


■ CAD measuring:



import CAD drawing, set the datum, establish coordinate system, then the software will automatically measure

■ CAD comparison:



import CAD drawing, then compare with real-time image

■ Profile detection:



CNC VISION MEASURING SYSTEMS



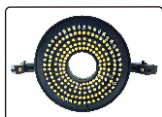
software flash disk (included)



lens with built-in coaxial light (included)



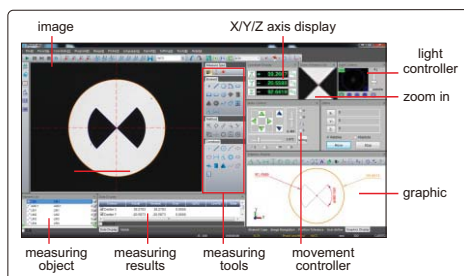
programmable segmented ring light (included)



ISD-V220CNCA-U

controller

computer is included



SPECIFICATION

Part No. (manual zoom lens)	ISD-V220CNCA-U	ISD-V270CNCA-U	ISD-V370CNCA-U
Measuring range (X×Y×Z)	8.66×4.72×5.90"	10.63×6.69×5.90"	14.57×10.63×5.90"
Stage size	17.72×11.02"	19.69×12.99"	23.86×18.35"
Glass stage size	12.05×7.72"	13.78×9.84"	17.72×13.78"
Resolution of X/Y/Z axis	.00002"		
Accuracy of X/Y axis	≤(98.4+10L)μin (L is the measuring length in inch)		≤(137.8+10L)μin (L is the measuring length in inch)
Repeatability of X/Y axis	.00008"		
Objective	0.7X~4.5X (zoom)		
Working distance	3.62"		
Magnification	33.0X~208.6X (with manual zoom lens, on 24" monitor) 31.9X~188.7X (with motorized zoom lens, on 24" monitor)		
Camera	giga-bit network camera		
Illumination	surface	coaxial light, programmable segmented ring light	
	contour	adjustable LED	
View field (diagonal length)	.06~.43"		
Max. height of workpiece	5.90"		
Max. weight of workpiece	66lb		
Operation system	windows 7/8/10		
Drive method	automatic		
Power supply	110V, 50/60Hz		
Dimension (L×W×H)	29.92×23.62×35.43"	29.92×23.62×35.43"	38.19×26.38×37.01"
Weight	322lb	370lb	586lb

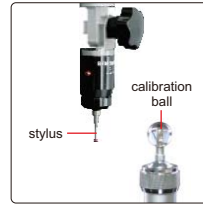
To be continued

Continued from previous page

- Automatic edge-detection, focus, measuring, contour scanning, calibration, etc.
- Servo motors for X, Y, Z axis
- SPC function for large quantity measurement

STANDARD DELIVERY

Main unit	1 pc
Software	1 pc
Computer	1 pc
24" display	1 pc
Len with coaxial light	1 pc
Controller	1 pc
Calibration glass chart	1 pc
Laser positioner	1 pc
Clay	1 pc
Anti-dust cover	1 pc



probe (optional), includes Ø2mm/.079" DIA and Ø3mm/.118" DIA styli, Ø25mm/.984" calibration ball, measuring accuracy is .0004"



laser probe (optional) measuring accuracy is .0002"

OPTIONAL ACCESSORY

0.5X auxiliary objective	Part No. ISD-V-OB05X Working distance: 6.89" Magnification: 16.5~104.3X (with manual zoom lens, on 24" monitor) 16.0~94.4X (with motorized zoom lens, on 24" monitor)
2X auxiliary objective	Part No. ISD-V-OB2X Working distance: 1.42" Magnification: 66~417.2X (with manual zoom lens, on 24" monitor) 63.8~377.4X (with motorized zoom lens, on 24" monitor)
Probe	Part No. ISD-V-PROBE includes Ø2mm/.079" DIA and Ø3mm/.118" DIA styli, Ø25mm/.984" calibration ball
Laser probe	Part No. ISD-V-LASER
Office software	Part No. 7313-OFFICE
Desk	Part No. ISD-V-DESK

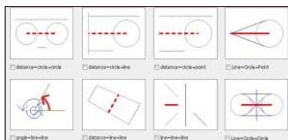


SOFTWARE

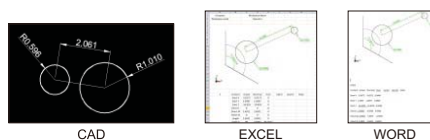
- Operation system: Windows 7/8/10
- Language: English
- Single measuring tools:

<input type="checkbox"/> measure coordinate of point	<input type="checkbox"/> measure center coordinate, diameter and area of circle	<input type="checkbox"/> measure distance between two points	<input type="checkbox"/> measure length and diameter of arc
<input type="checkbox"/> measure center coordinate and axis length of ellipse	<input type="checkbox"/> measure length, width and area of rectangle	<input type="checkbox"/> measure length, width and diameter of key slot	<input type="checkbox"/> measure width and diameter of ring
<input type="checkbox"/> measure length of open curve	<input type="checkbox"/> measure length and area of closed curve	<input type="checkbox"/> measure angle of two lines	<input type="checkbox"/> measure focus distance of urface
<input type="checkbox"/> measure distance of two elements			

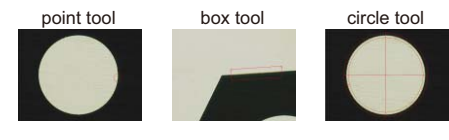
■ Measuring and element construct methods:



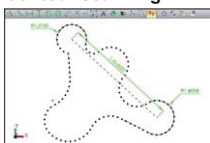
■ Export to CAD, EXCEL, WORD



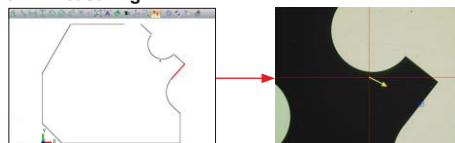
■ Edge-detection:



■ Contour scanning:

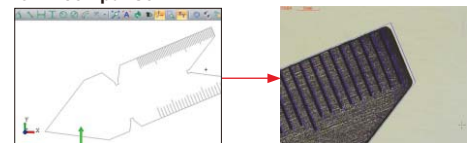


■ CAD measuring:



import CAD drawing, set the datum, establish coordinate system, then the software will automatically measure

■ CAD comparison:



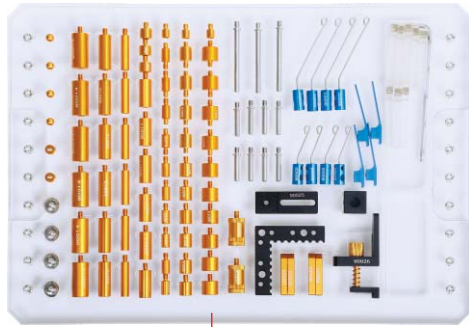
import CAD drawing, then compare with real-time image

■ Profile detection:

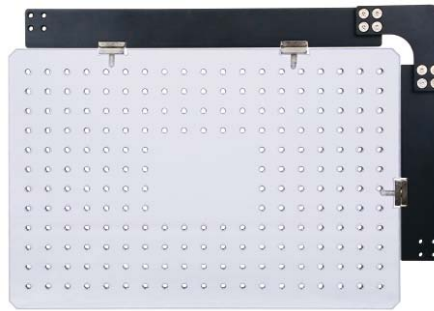


JIG SET FOR VISION MEASURING SYSTEMS

PART NO. ISY-700

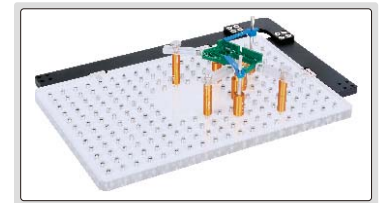












acrylic tray (included)



ISY-700

application example



Product	Part No.	Size	Quantity
 clip	ISY-700-90001	.278×1.339"	4
 clip	ISY-700-90002	.059×.945"	4
	ISY-700-90003	.059" DIA×1.969"	4
 clip stand	ISY-700-90004	.157" DIA×.787"	8
	ISY-700-90005	.157" DIA×1.811"	3
 spherical support head	ISY-700-90006	—	4
 stand	ISY-700-90007	.236" DIA×.394"	6
	ISY-700-90008	.236" DIA×.984"	6
	ISY-700-90019	.236" DIA×.236"	3
	ISY-700-90009	.354" DIA×.278"	3
 stand	ISY-700-90010	.354" DIA×.394"	6
	ISY-700-90011	.354" DIA×.787"	6
	ISY-700-90012	.354" DIA×.984"	6
	ISY-700-90013	.472" DIA×.394"	6
 stand	ISY-700-90014	.472" DIA×.984"	6
	ISY-700-90015	.236" DIA×.394"	4
 stand for slice parts	ISY-700-90016	.354" DIA×.394"	4
	ISY-700-90017	.472" DIA×.394"	4
	ISY-700-90018	.472" DIA×.787~.984"	2
 stand with fine adjustment	ISY-700-90018	.472" DIA×.787~.984"	2
 adaptor for square support	ISY-700-90020	—	2

Product	Part No.	Size	Quantity
 clamping screw	ISY-700-90021	—	4
 L-shaped positioning plate	ISY-700-90022	1.969×1.969×.236"	1
 sliding support plate	ISY-700-90023	1.181×.472×.197"	4
 square support	ISY-700-90024	.787×.63×.63"	1
 base for square support	ISY-700-90025	1.772×.63×.236"	1
 spring stand	ISY-700-90026	—	1
 acrylic sliding support plate	ISY-700-90028	1.772×.472×.197"	8
 wrench	ISY-700-90029	M3mm	1
 acrylic base plate	ISY-700-90030	11.811×7.874×.472" hole size: M4X0.7mm	1

AUTO FOCUS DIGITAL MICROSCOPE (LARGE VIEW FIELD)

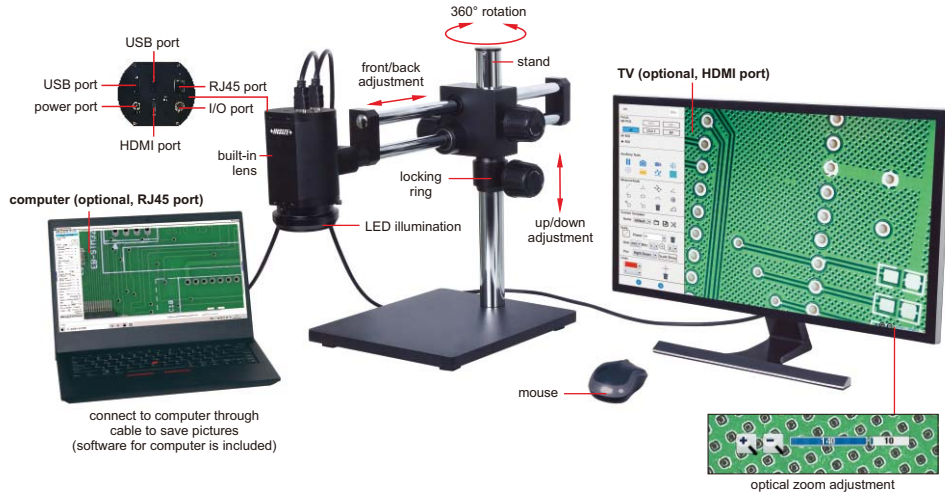


CAN BE CONNECTED TO PC AND TV AT THE SAME TIME

TAKE PICTURES AND VIDEOS

MEASUREMENT

AUTO FOCUS



- Auto focus camera
- Take pictures and videos
- Can be connected to TV (HDMI port) and computer (RJ45 port) at the same time
- Built-in measuring software for TV
- Measuring software for computers is included
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)

SPECIFICATION

Part No.	5302-AF105 (standard type)
Pixel	2M
Resolution	1920×1080
Magnification	1.4X~25.8X (on 28" TV)
Sensor	1/2.8" CMOS
Auto focus distance	4"~∞
Output	HDMI, RJ45
Frame rate	HDMI: 60fps, RJ45: 50fps
Power supply	power adapter
Dimension (L×W×H)	19.69×11.02×16.14"
Weight	37.48lb

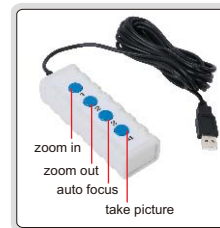
STANDARD DELIVERY

Main unit (with stand)	1 pc
LED illumination	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable (for TV)	1 pc
Network cable (for computer)	1 pc
Switch	1 pc
Software for computer	1 pc
Power adapter	2 pcs

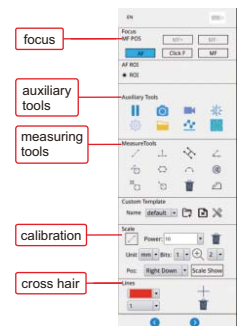
OPTIONAL ACCESSORY

28" 4K TV	5302-AF-TV28
32" 4K TV	5302-AF-TV32
Computer	5302-AF-COMPUTER
Controller	5302-AF-CONTROLLER

controller (optional, for TV)



TV SOFTWARE (INCLUDED)



VIEW FIELD

Focus distance	Adjustable magnification (on 28" TV)	View field
3.94"	3.9~25.8X	.94×.55~6.61×3.58"
5.91"	2.6~20X	1.18×.66~9.49×5.04"
7.87"	2.1~17X	1.47×.79~12.40×6.69"
9.84"	1.7~14.7X	1.65×.94~15.18×8.27"
10.63"	1.4~14X	1.69×.98~16.34×8.86"

MEASURING ACCURACY

Optical magnification	Measuring accuracy
2X	±.004"
4X	±.004"
6X	±.002"
8X	±.001"
14X	±.001"

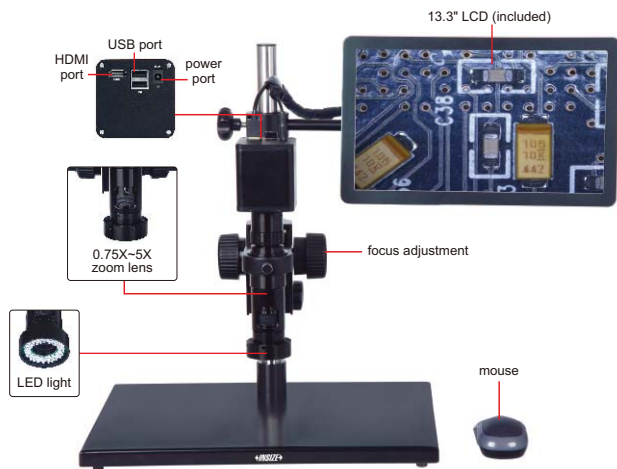
AUTO FOCUS DIGITAL MICROSCOPE

PART NO. 5303-AF103

AUTO FOCUS

TAKE PICTURES AND VIDEOS

MEASUREMENT



16G USB flash disk (included)



0.5X camera adapter (included)



1X auxiliary objective (included)

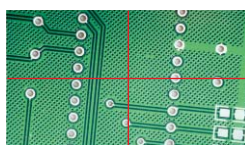


2X auxiliary objective (optional)

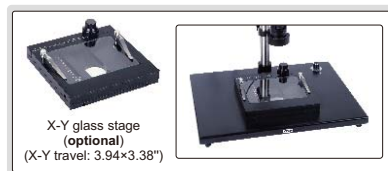


1X camera adapter (optional)

- 1080P high-definition image
- Auto focus camera
- Take pictures and videos, saved to USB flash disk
- Picture review, picture compare
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)
- Built-in software without computer, operation by mouse



display cross hair (blue/green/red/yellow/black/brown colors)



X-Y glass stage (optional) (X-Y travel: 3.94×3.38")

SPECIFICATION

Magnification	20X~123X
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	22.44×11.81×16.93"
Weight	14.33lb

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (Included)	magnification	20~123X	40~246X
	focus distance	1.89~3.31"	1.89~3.31"
	view field	.51×.28~.09×.04"	.25×.14~.04×.02"
	measuring accuracy	±0.0008"	±0.0008"
2X (optional)	magnification	40~246X	80~492X
	focus distance	.94~1.65"	.94~1.65"
	view field	.26×.14~.04×.02"	.13×.07~.02×.01"
	measuring accuracy	±0.0008"	±0.0008"

OPTIONAL ACCESSORY

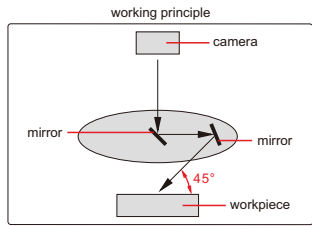
1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 3.94×3.38")	ISM-DL-STAGE
X-Y metal stage	ISM-DL-STAGE1
LED light	refer to details
Auxiliary objective	refer to details

AUTO FOCUS DISTANCE

Zoom objective scale	0.75X	1X	1.5X	2X	2.5X	3X	3.5X	4X	4.5X	5X
Auto focus distance	1.89~3.31"	1.97~3.07"	2.17~2.87"	2.44~2.80"	2.56~2.76"	2.60~2.76"	2.64~2.76"	2.68~2.76"	2.68~2.76"	2.68~2.76"

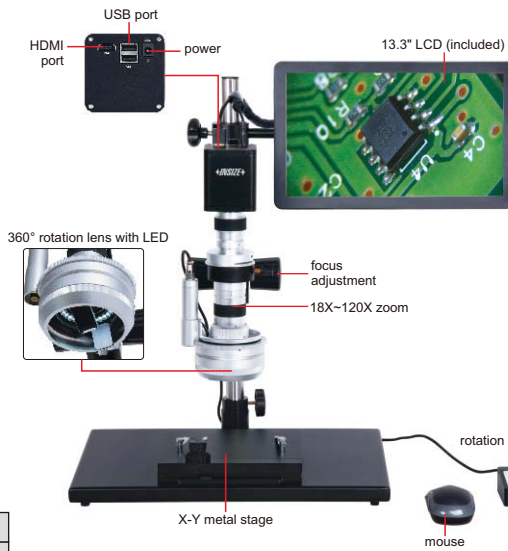
3D MOTORIZED ROTATION MICROSCOPE PART NO. 5301-D400

- 1080P high-definition 3D image
- Take pictures and videos, saved to USB flash disk
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable



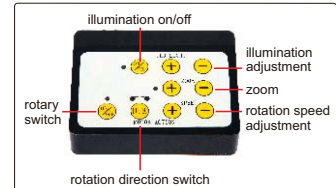
SPECIFICATION

Magnification	18X~120X
View field	.09×.06~.63×.35"
Focus distance	.79"
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Rotation speed	2~5RPM
Power supply	power adapter and 110/220V, 50/60Hz
Dimension (L×W×H)	22.44×11.81×16.93"
Weight	14.44lb



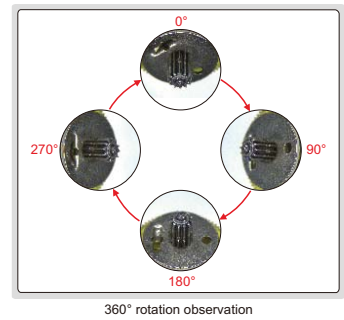
SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLE

TAKE PICTURES AND VIDEOS

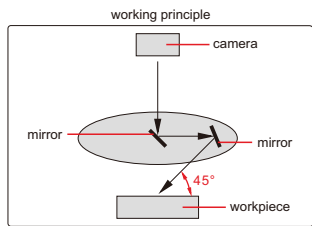


STANDARD DELIVERY

Main unit	1 pc
Rotation controller	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs



3D MANUAL ROTATION MICROSCOPE PART NO. 5313-S407



SPECIFICATION

Magnification	18X~120X
View field	.09×.06~.63×.35"
Focus distance	.79"
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	22.44×11.81×16.93"
Weight	14.44lb



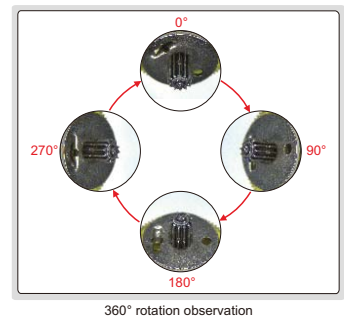
SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLES

TAKE PICTURES AND VIDEOS

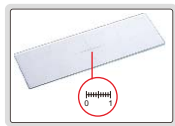


STANDARD DELIVERY

Main unit	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs



DIGITAL MEASURING MICROSCOPE (BASIC TYPE) PART NO. 5318-MD60



glass calibration rule
(graduation: 0.04"/0.1mm,
included)



white/black plate
(included)



16G USB flash disk
(included)

- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Brightness, contrast ratio, gain are adjustable

SPECIFICATION

Magnification	12.5X~80X
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Measuring accuracy	±.001"
Lines	cross lines, scale lines (number, color and position of lines are adjustable)
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	14.96×10.24×13.78"
Weight	9.92lb

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
White/black plate	1 pc
Glass calibration rule	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

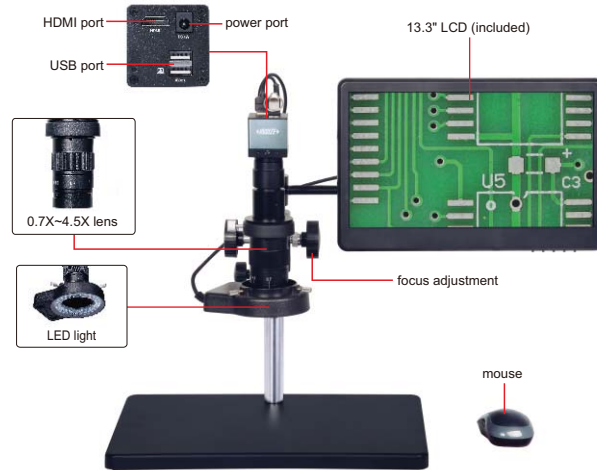
0.5X auxiliary objective	5318-OB05X
2X auxiliary objective	5318-OB2X

BUILT-IN SOFTWARE
WITHOUT COMPUTER

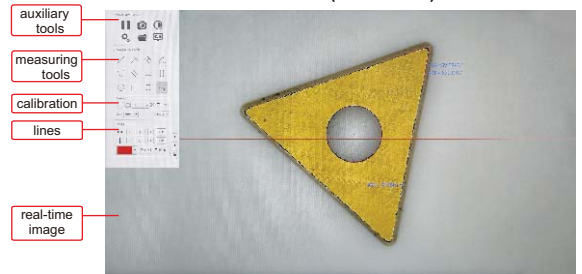
MEASUREMENT

TAKE
PICTURES

POPULAR
MODEL



MEASURING SOFTWARE (INCLUDED)



MAGNIFICATION AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter
		0.5X (included)
0.5X (optional)	magnification	6.2~40X
	view field	1.85×1.02~.29×.16"
1X (included)	magnification	12.5~80X
	view field	.92×.51~.14×.08"
2X (optional)	magnification	25~160X
	view field	.46×.25~.07×.04"

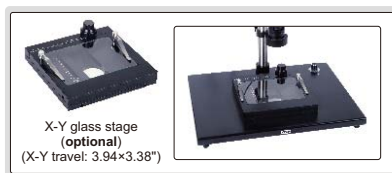
DIGITAL MEASURING MICROSCOPE

TAKE PICTURES

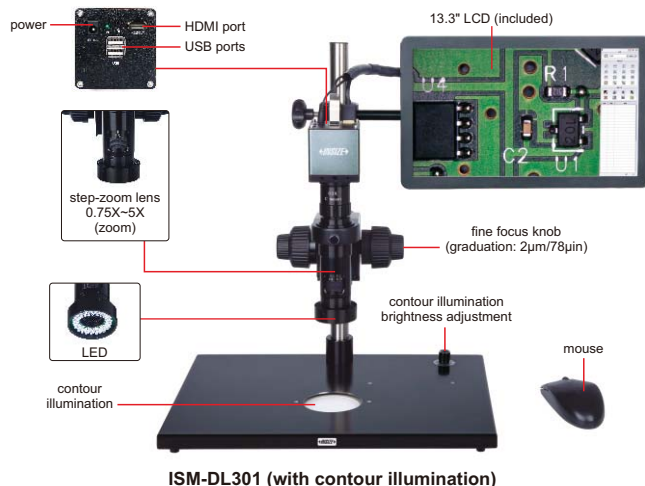
MEASUREMENT

BUILT-IN SOFTWARE
WITHOUT COMPUTER

POPULAR
MODEL



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, saved to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable



ISM-DL301 (with contour illumination)

To be continued

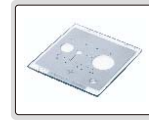
Continued from previous page

SPECIFICATION

Part No.	ISM-DL301 (with contour illumination)
Magnification	15X~100X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	22.44×11.81×16.93"
Weight	14.44lb



16G USB flash disk (included)



calibration plate (included)



2X auxiliary objective (optional)



0.5X camera adapter (included)



1X camera adapter (optional)



1X auxiliary objective (included)

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.75X	15X	±.00031"
1X	20X	±.00028"
1.5X	30X	±.00024"
2X	40X	±.00024"
2.5X	50X	±.00024"
3X	60X	±.00020"
3.5X	70X	±.00020"
4X	80X	±.00016"
4.5X	90X	±.00016"
5X	100X	±.00016"

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	15~100X	30~200X
	focus distance	2.76±.08"	2.76±.08"
	view filed	.63×.43~.1×.06"	.31×.21"~.05×.03"
2X (optional)	magnification	30~200X	60~400X
	focus distance	1.14±.08"	1.14±.08"
	view field	.31×.21~.05×.03"	.15×.11"~.024×.016"

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 3.94×3.38")	ISM-DL-STAGE
X-Y metal stage	ISM-DL-STAGE1
LED light	refer to details
Auxiliary objective	refer to details

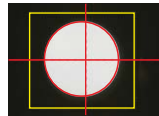
SOFTWARE

- Language: English
- Output to Excel
- Edge-detection:

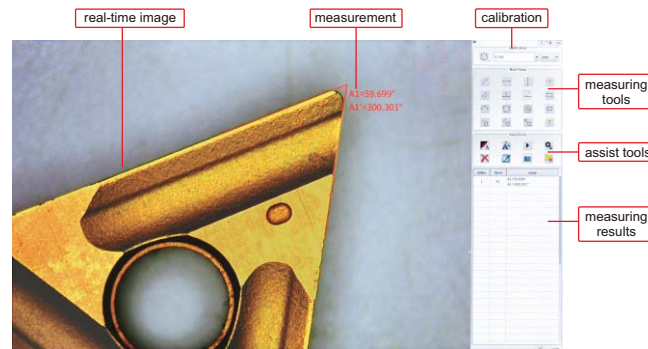
Point tool



Box tool



Click tool



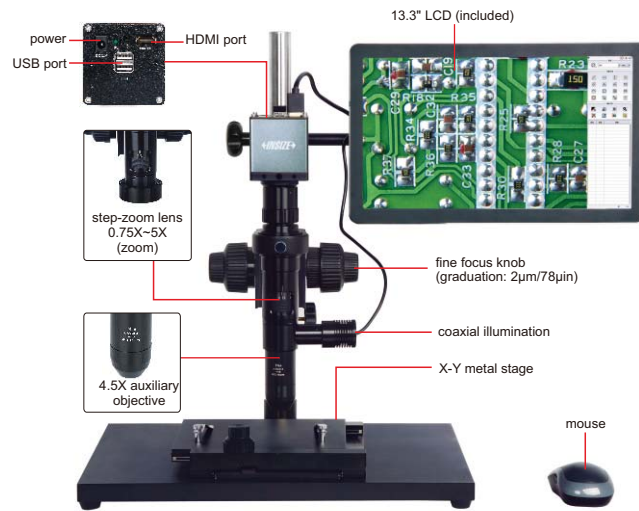
Measurement tools:

- measure length of line or distance between two points
- measure angle from horizontal line
- measure distance between two parallel lines
- measure distance between point and line
- measure radius, diameter, girth and area of circle with three points
- measure minimum distance between point and circle
- measure minimum distance between line and circle
- measure minimum distance between two circles
- add text
- measure length of line or distance between two points in horizontal direction
- measure length of line or distance between two points in vertical direction
- measure angle of two lines
- measure distance between multiple parallel lines
- measure girth and area of polygon
- measure length, width, girth and area of rectangle
- measure maximum distance between point and circle
- measure maximum distance between line and circle
- measure maximum distance between two circles
- cross hair

HIGH MAGNIFICATION MEASURING MICROSCOPE PART NO. ISM-DL302

SOFTWARE IS INCLUDED,
REFER TO ISM-DL301 FOR DETAILS

OBSERVATION AND MEASUREMENT
AT HIGH MAGNIFICATION



- 1080P high-definition image
- Maximum 1000X optical magnification (using camera adapter 1X, optional)
- Built-in software without computer, operation by mouse
- Solid base and column to avoid lens shaking during focusing
- Software is included, refer to **ISM-DL301** for details



calibration plate (included)



0.5X camera adapter (included)



16G USB flash disk (included)



1X camera adapter (optional)

SPECIFICATION

Magnification	75X~504X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	22.44×11.81×16.93"
Weight	30.07lb

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Camera adapter	0.5X (included)	1X (optional)
Magnification	78~504X	156~1008X
Focus distance	.55±.08"	.55±.08"
View field	.11×.07~.02×.01"	.06×.04~.01×.01"

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
4.5X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
X-Y metal stage	1 pc

MAGNIFICATION AND MEASURING ACCURACY

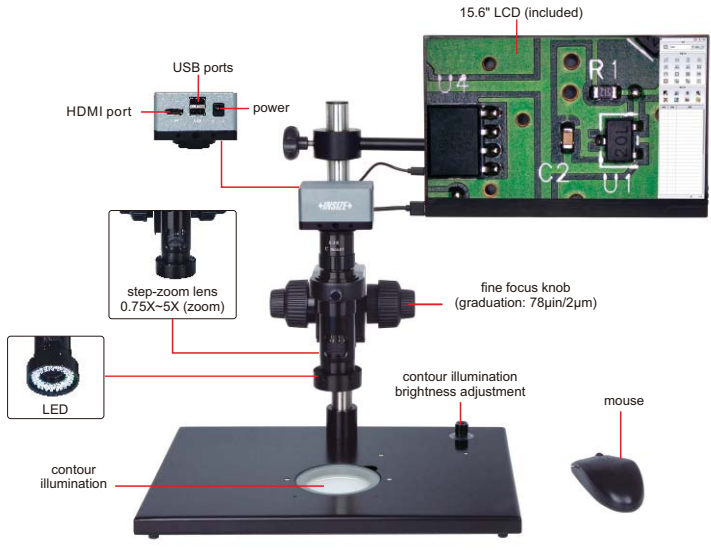
Objective magnification	Image magnification	Measuring accuracy
0.75X	78X	±.00020"
1X	102X	±.00016"
1.5X	153X	±.00016"
2X	204X	±.00016"
2.5X	255X	±.00016"
3X	305X	±.00016"
3.5X	356X	±.00016"
4X	408X	±.00016"
4.5X	458X	±.00016"
5X	504X	±.00016"

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
LED light	refer to details

4K DIGITAL MEASURING MICROSCOPE PART NO. 5310-DL401-U

- MEASUREMENT
- BUILT-IN SOFTWARE
WITHOUT COMPUTER
- TAKE
PICTURES



- 4K high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable

SPECIFICATION

Magnification	17.6X~120X
Sensor	1/2.3" CMOS
Pixel	8M
Resolution	3840x2160
Frame rate	4K: 30fps, 1080P: 60fps
Output	HDMI
Power supply	power adapter
Dimension (LxWxH)	22.44x11.81x16.93"
Weight	14.33lb

MAGNIFICATION, VIEW FIELD AND MEASURING ACCURACY

Objective magnification	Image magnification	View field	Measuring accuracy
0.75X	17.6X	.76x.45"	±.00020"
1X	23.7X	.55x.31"	±.00020"
1.5X	36.6X	.35x.19"	±.00020"
2X	49X	.27x.15"	±.00020"
2.5X	62X	.21x.11"	±.00016"
3X	73X	.17x.09"	±.00016"
3.5X	85X	.15x.08"	±.00016"
4X	97X	.13x.07"	±.00012"
4.5X	109X	.11x.07"	±.00012"
5X	120X	.10x.05"	±.00012"

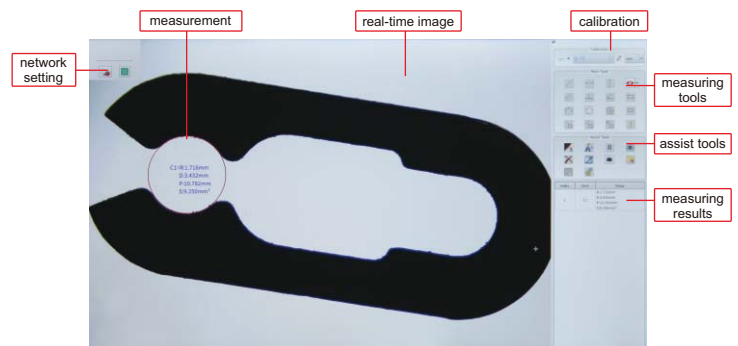
STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 3.94x3.38")	ISM-DL-STAGE
X-Y metal stage (travel: 3.94x3.38")	ISM-DL-STAGE1
LED light	refer to details
Auxiliary objective	refer to details

SOFTWARE (INCLUDED)

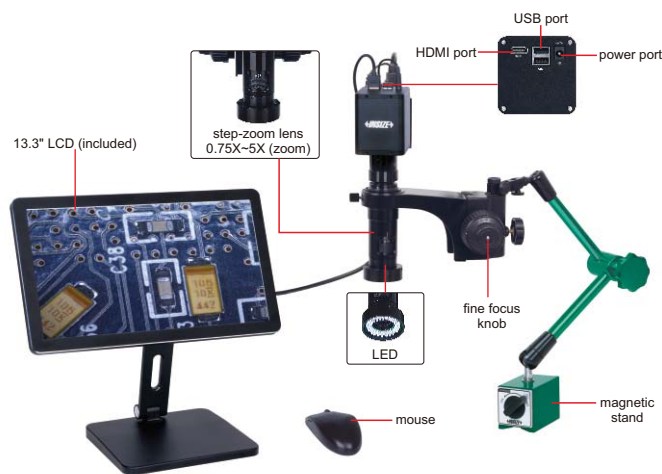


FLEXIBLE ARM AUTO FOCUS DIGITAL MICROSCOPES

MEASUREMENT

AUTO FOCUS

TAKE PICTURES AND VIDEOS



5317-AF109



5317-AF110



16G USB flash disk (included)



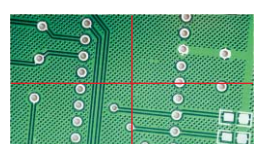
calibration plate (included)



0.5X camera adapter (included)



1X auxiliary objective (included)



display cross hair (blue/green/red/yellow/black/brown colors)

SPECIFICATION

Part No.	5317-AF109 (with magnetic stand)	5317-AF110 (with desktop clamp)
Magnification	20X~123X	
Sensor	1/2.8" CMOS	
Pixel	2M	
Resolution	1920×1080	
Frame rate	60fps	
Power supply	power adapter	
Dimension (height)	19.90"	23.62"
Weight	12.34lb	18.74lb

- 1080P high-definition image
- Auto focus camera
- Take pictures and videos, saved to USB flash disk
- Picture review, picture compare
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)
- Built-in software without computer, operation by mouse
- Flexible arm

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	20~123X	40~246X
	focus distance	1.89~3.31"	1.89~3.31"
	view field	.51×.28~.09×.04"	.25×.14~.04×.02"
	measuring accuracy	±.0008"	±.0008"
2X (optional)	magnification	40~246X	80~492X
	focus distance	.94~1.65"	.94~1.65"
	view field	.26×.14~.04×.02"	.13×.07~.02×.01"
	measuring accuracy	±.0008"	±.0008"

To be continued

Continued from previous page

OPTIONAL ACCESSORY

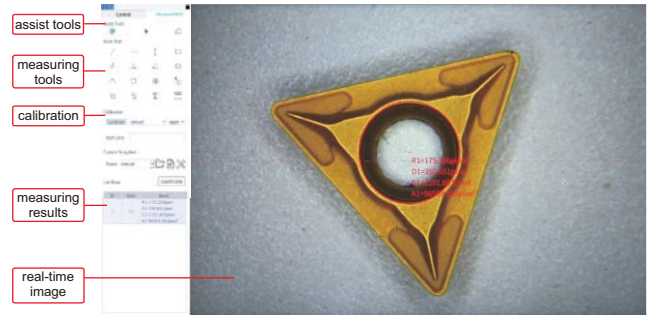
1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
Auxiliary objective	refer to details

AUTO FOCUS DISTANCE

Zoom objective scale	0.75X	1X	1.5X	2X	2.5X
Auto focus distance	1.89~3.31"	1.97~3.07"	2.17~2.87"	2.44~2.80"	2.56~2.76"

Zoom objective scale	3X	3.5X	4X	4.5X	5X
Auto focus distance	2.60~2.76"	2.64~2.76"	2.68~2.76"	2.68~2.76"	2.68~2.76"

MEASURING SOFTWARE (INCLUDED)



**DIGITAL MEASURING MICROSCOPE
PART NO. 5307-ID100A**

BUILT-IN SOFTWARE
WITHOUT COMPUTER

ELECTRONIC MAGNIFICATION
FEEDBACK LENS



- Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding pre-calibration data and calibration is not needed
- Two methods of LED brightness adjustment, knob adjustment and software adjustment
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measuring results can be sent to Excel

adjustable display angle



SPECIFICATION

Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Magnification	12~77X
Focus distance	3.94"
View field	.106×.075~.689×.469"
Max workpiece height	2.36"
Frame rate	60fps
Output	USB/HDMI
Power supply	power adapter
Dimension (L×W×H)	24.02×24.02×25.98"
Weight	9.92lb

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Magnification	Measuring accuracy
0.7X	12X	±.00035"
1X	17X	±.00035"
1.5X	26X	±.00031"
2X	35X	±.00027"
2.5X	43X	±.00027"
3X	51X	±.00027"
3.5X	60X	±.00024"
4X	68X	±.00024"
4.5X	77X	±.00020"

STANDARD DELIVERY

Main unit	1 pc
Calibration plate	1 pc
Power adapter	1 pc
Mouse	1 pc
16G USB flash disk	1 pc

OPTIONAL ACCESSORY

0.5X auxiliary objective	5307-ID100A-OB05X
0.75X auxiliary objective	5307-ID100A-OB075X
2X auxiliary objective	5307-ID100A-OB2X

AUTO FOCUS DIGITAL MICROSCOPE

PART NO. 5319-AF290

MOTORIZED LIGHT CONTROL

AUTO FOCUS

TAKE PICTURES AND VIDEOS

MEASUREMENT

MOTORIZED ZOOM

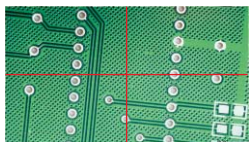
NO CALIBRATION AFTER ZOOM



16G USB flash disk (included)



calibration plate (included)



display cross hair and gridline (blue/green/red/yellow/black/white colors)



- Auto focus camera
- Take pictures and videos
- Built-in measuring software
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display actual magnification
- Digital magnification
- Shortcut keyboard operation
- Display cross hair and gridline (blue/green/red/yellow/black/white colors)



shortcut keyboard (included)

- Shortcut keyboard function**
- Take picture: take a picture and save it
 - Video: record a video
 - Freeze: the image can be frozen
 - Manual focus-: reduce the manual focus value
 - Manual focus+: increase the manual focus value
 - Zoom+: increase the magnification
 - Zoom-: reduce the magnification
 - AF/MF: switch to auto focus or manual focus
 - FBL: center the camera motor
 - Mirror: image horizontal flipover
 - Flip: image vertical flipover
 - Focus: achieve one-key focus
 - Zoom 1, 2, 3, 4: save the current magnification
 - Brightness+: increase the brightness of the light
 - Brightness-: reduce the brightness of the light

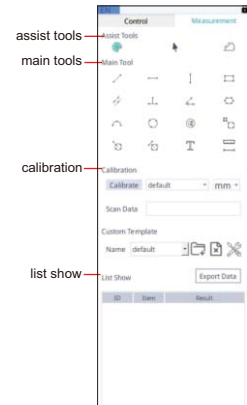
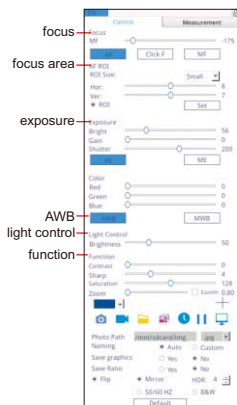
SPECIFICATION

Magnification	27.4X~163X
Sensor	1/2.8" CMOS
Pixel	2M
Measuring accuracy	±.0008"
Resolution	1920×1080
Frame rate	50/60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	23.62×11.02×15.35"
Weight	14.33lb

STANDARD DELIVERY

Main unit (with stand)	1 pc
21.5" LCD	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Calibration plate	1 pc
White/black plate	1 pc
Shortcut keyboard	1 pc
Power adapter	2 pcs

SOFTWARE (INCLUDED)



FOCUS DISTANCE AND VIEW FIELD

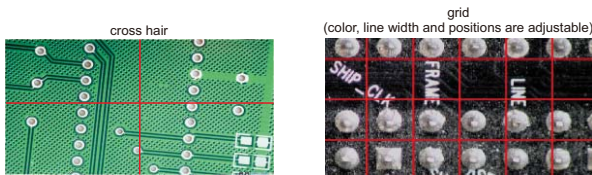
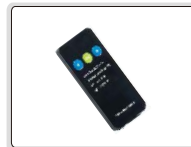
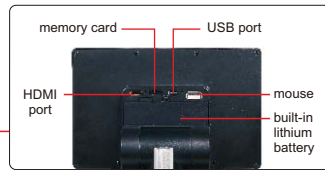
Optical magnification*	0.8X	1X	2X	3X	4X	4.76X
Focus distance	3.46~5.24"	3.46~5.24"	3.86~4.84"	4.05~4.52"	4.25~4.37"	4.25~4.37"
View field	.76×.43~.62×.34"	.59×.32~.50×.28"	.28×.15~.26×.15"	.19×.10~.17×.09"	.14×.08~.13×.07"	.12×.06~.11×.06"

*The optical zoom lens can be arbitrarily zoomed between 0.8X and 4.76X

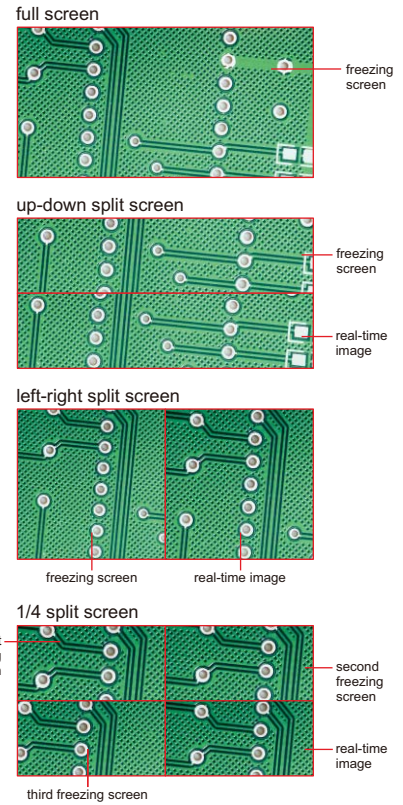
MINI DIGITAL MICROSCOPE (ECONOMIC TYPE) PART NO. 5311-M710

BUILT-IN LITHIUM BATTERY

TAKE PICTURES AND VIDEOS



Screen freezing:



SOFTWARE FOR COMPUTER (INCLUDED)

- Language: Chinese (Simplified), English
- Operation system: Windows 7/8/8.1/10 (64bit)
- Port: USB2.0 or above
- Measuring accuracy .0008"

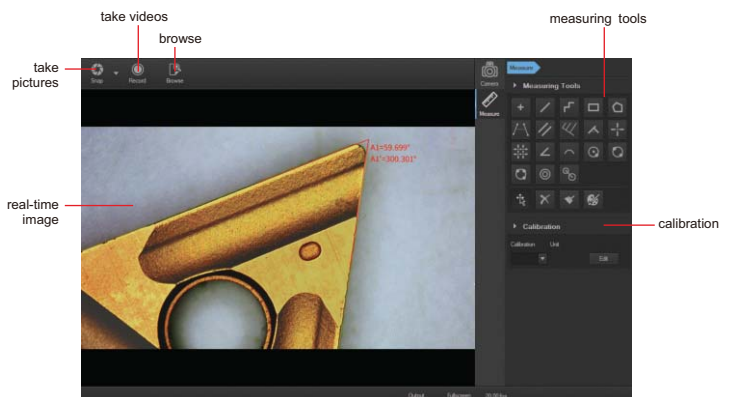
- point counting
- distance between line and first parallel line
- distance between 2 lines
- arc
- double cross line
- center distance of concentric circle
- radius of a 3-point circle
- area of a rectangle
- straight line length
- point-line distance
- distance between parallel lines
- radius of a circle
- angle
- area of a polygon
- center distance of 2 circles
- cross line
- continuous line length
- radius of a 2-point circle

SPECIFICATION

Display resolution	1024×600
Sensor	1/3" CMOS
Sensor resolution	1280×960
Frame rate	60fps/30fps
Magnification	1X~16X
White balance	auto/manual (10 levels RGB)/calibration
Exposure control	AE lock/exposure compensation (10 levels)
Image control	contrast/saturation/sharpness
Record media	memory card
Output	HDMI
Power supply	built-in lithium battery/power adapter
Dimension (L×W×H)	6.85×7.87×13.78"
Weight	3.30lb

STANDARD DELIVERY

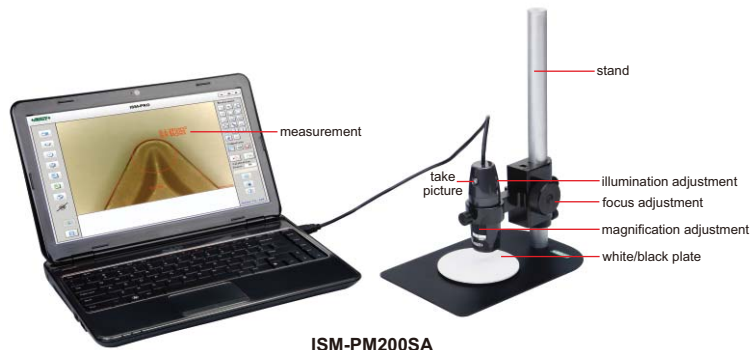
Main unit	1 pc
USB cable	1 pc
HDMI cable	1 pc
IR remote controller	1 pc
8G memory card and holder	1 pc
Plastic calibration rule	1 pc
Power adapter	1 pc



DIGITAL MEASURING MICROSCOPES



universal stand (included in ISM-PM200SB)



software flash disk (included)

- Can take pictures and videos
- Supplied with software
- Calibration rules (graduation 0.1mm/.004" and 1mm/.039") are included
- With focus support

ISM-PM200SA
computer is optional

SPECIFICATION

Part No.	ISM-PM200SA	ISM-PM200SB
Magnification	10X~200X	10X~200X
Stand	standard	universal
Pixel	2M (resolution: 1600×1200)	
Illumination	built-in adjustable LED	
Power supply	USB 2.0 cable (voltage required: 5±0.1V)	



focus support (included)



put the digital microscope directly on the workpiece for inspection and measurement

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	.83"	.32×.25"	1.2mil
100X	.51"	.15×.12"	0.6mil
150X	.63"	.10×.08"	0.4mil
200X	.75"	.07×.06"	0.3mil

OPTIONAL ACCESSORY

Green filter	ISM-PM-GREEN
Yellow filter	ISM-PM-YELLOW
Blue filter	ISM-PM-BLUE

filter (optional)



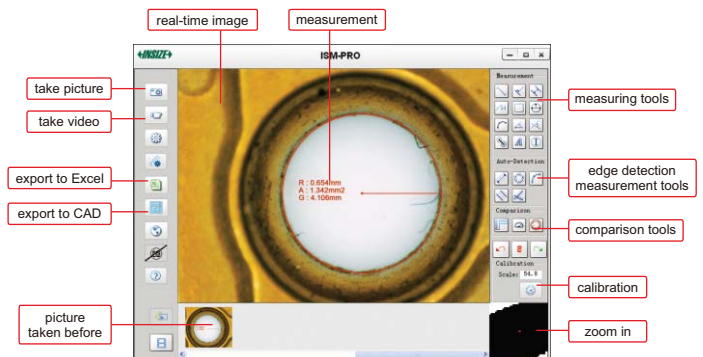
SOFTWARE

- **Language:** English, Japanese, Korean, German, Turkey, Portuguese, Chinese
- **Operation system:** Windows XP/7/8/10/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 distance between two circles
- measure angle with three points
- measure angle with two lines
- add text
- add number with circle

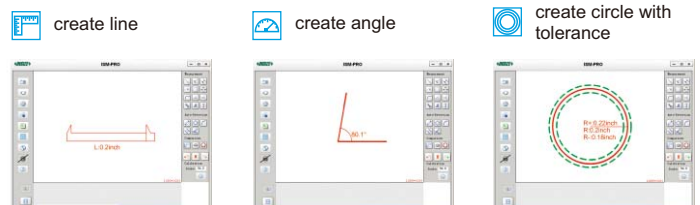
■ Edge detection measurement tools:

- detect line automatically, and calculate length
- detect arc automatically, and calculate radius, angle and arc length
- detect two lines automatically, and calculate angle
- detect circle automatically, and calculate radius, girth and area
- detect two parallel lines automatically and calculate distance

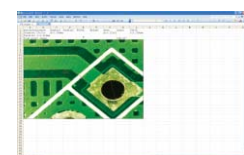
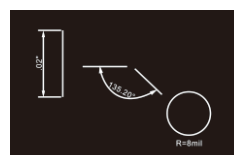


Comparison tools:

- Create line, angle or circle with desired size, to compare with workpieces.



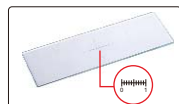
■ Data export to CAD or Excel:



WiFi DIGITAL MEASURING MICROSCOPE PART NO. ISM-WF200



plastic calibration rule (graduation 1mm/.039", included)



glass calibration rule (graduation 0.1mm/.004", included)



software flash disk (included)

- Maximum working distance is 200" under WiFi mode
- Can be connected to multiple iPads, Android devices or computers at the same time under WiFi mode
- Take pictures and videos
- Supplied with software

SPECIFICATION

Magnification	10X~200X
Pixel	1.3M (resolution: 1280x1024)
Illumination	built-in adjustable LED
Power supply	built-in rechargeable battery

STANDARD DELIVERY

Microscope	1 pc
Focus support ring for 80X/150X	1 pc
Focus support ring for 60X/200X	1 pc
Glass calibration rule (graduation 0.1mm/.004")	1 pc
Plastic calibration rule (graduation 1mm/.039")	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Stand	ISM-PM-STAND
Green filter	ISM-PM-GREEN
Yellow filter	ISM-PM-YELLOW
Blue filter	ISM-PM-BLUE



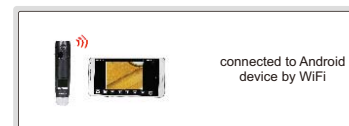
stand (part no. ISM-PM-STAND, optional)



filter (optional)



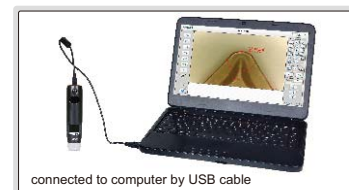
connected to iPad by WiFi



connected to Android device by WiFi



connected to computer by WiFi

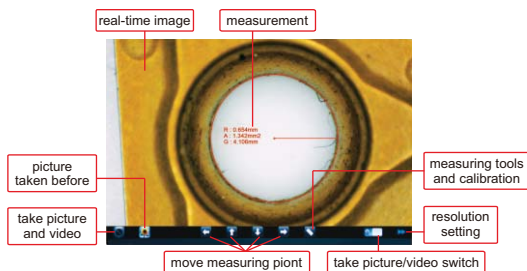


connected to computer by USB cable

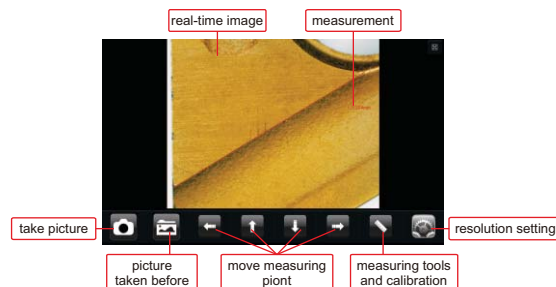
MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	.83"	.32×.25"	1.2mil
100X	.51"	.15×.12"	0.6mil
150X	.63"	.10×.08"	0.4mil
200X	.75"	.07×.06"	0.3mil

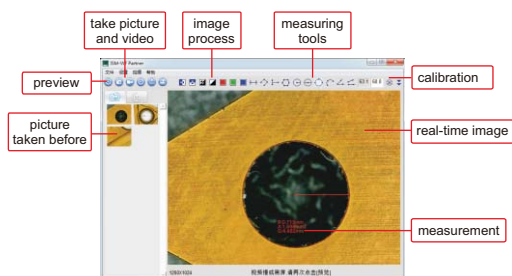
1 Software ISM-PAD (for iPad by WiFi)



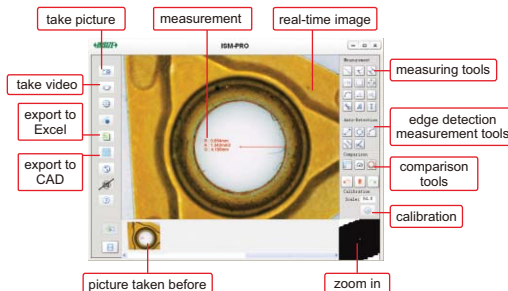
2 Software ISM-APK (for Android devices by WiFi)



3 Software ISM-WF Partner (for computer by WiFi)



4 Software ISM-PRO (for computer by USB cable)



INDUSTRIAL MICROSCOPE

- Infinite optical system, polarization observation, dark field observation
- Kohler illumination system provides uniform illumination field
- Objective 50X is spring type



SPECIFICATION

Part No.	5101-M500-U (bright field objectives)			
Illumination	6V/30W halogen lamp, brightness is adjustable			
Objective (infinite plan achromatic)	bright field objectives			
	5X	10X	20X	50X
Working distance	1.03"	.80"	.35"	.14"
Numerical aperture	0.12	0.25	0.40	0.70
Magnification	50X~500X			
Eyepiece (wide field)	10X (view field .87" DIA)			
Stage	double layer			
	size: 6.30×5.51"			
	travel: 1.38×1.18"			
Pupil distance	2.09~2.95"			
Diopter adjustment	±5 diopter (one eyepiece)			
Power supply	110V, 50/60Hz			
Dimension (L×W×H)	16.34×13.58×14.96"			
Weight	30.86lb			

STANDARD DELIVERY

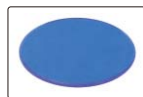
Main unit	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Bright field objective	PL40X	5101-M-OB40X
	PL60X	5101-M-OB60X
	PL80X	5101-M-OB80X
	PL100X	5101-M-OB100X
10X dividing eyepiece (0.1mm/.004")	5101-M-EPD10X	
Digital camera	ISM-CM20, ISM-CM63, ISM-ZS70-S	
Camera adapter*	5101-M-ADAPTER	

*Digital camera must be used with camera adapter

METALLURGICAL MICROSCOPE



blue filter (included)



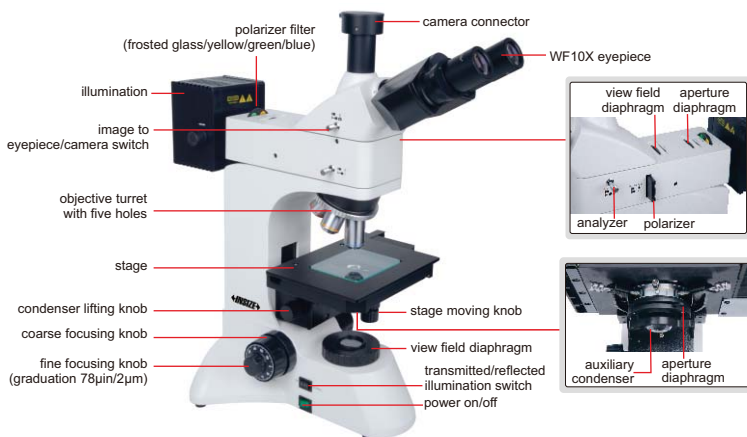
frosted glass filter (included)



- Infinite optical system, observation in reflected or transmitted illumination, polarizing observation
- Kohler illumination system provides uniform illumination field
- Objectives 40X, 60X are spring type

SPECIFICATION

Part No.	5102-M600-U (bright field objectives)			
Illumination	6V/30W (transmitted), 6V/30W (reflected)			
Objective (infinite plan achromatic)	bright field objectives			
	5X	10X	40X	60X
Working distance	1.03"	.80"	.16"	.13"
Numerical aperture	0.12	0.25	0.60	0.70
Magnification	50X~600X			
Eyepiece (wide field)	10X (view field .87" DIA)			
Stage	double layer			
	size: 8.27×5.51"			
	travel: 2.95×1.97"			
Pupil distance	2.09~2.95"			
Diopter adjustment	±5 diopter (one eyepiece)			
Power supply	110V, 50/60Hz			
Dimension (L×W×H)	17.95×10.24×19.61"			
Weight	24.25lb			



STANDARD DELIVERY

Main unit	1 pc
Anti-dust cover	1 pc
Filter (blue/frosted glass)	1 pc of each

OPTIONAL ACCESSORY

Bright field objective (for 5102-M600-U)	PL20X	5101-M-OB20X
	PL50X	5101-M-OB50X
	PL80X	5101-M-OB80X
	PL100X	5101-M-OB100X
10X dividing eyepiece (0.1mm/.004")	5101-M-EPD10X	
Digital camera	ISM-CM20, ISM-CM63, ISM-ZS70-S	
Camera adapter*	5101-M-ADAPTER	

*Digital camera must be used with camera adapter

METALLURGICAL MICROSCOPE



- Infinite optical system, polarization observation, dark field observation
- Kohler illumination system provides uniform illumination field
- Objectives 50X, 100X are spring type



SPECIFICATION

Part No.	5103-M1000-U (bright field objectives)			
Illumination	6V/30W halogen lamp, brightness is adjustable			
Objective (infinite plan achromatic)	bright field objectives			
	10X	20X	50X	100X
Working distance	.80"	.35"	.14"	.02"
Numerical aperture	0.25	0.40	0.70	0.85
Magnification	100X~1000X			
Eyepiece (wide field)	10X (view field .87" DIA)			
	double layer			
Stage	size: 9.53×7.87"			
	travel: 1.18×1.18"			
Pupil distance	2.09~2.95"			
Diopter adjustment	±5 diopter (one eyepiece)			
Power supply	110V, 50/60Hz			
Dimension (L×W×H)	24.17×9.84×15.51"			
Weight	28.66lb			

STANDARD DELIVERY

Main unit	1 pc
Polarizer and analyzer	1 pc of each
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Bright field objective (for 5103-M1000-U)	PL5X	5101-M-OB5X
	PL40X	5101-M-OB40X
	PL60X	5101-M-OB60X
	PL80X	5101-M-OB80X
10X dividing eyepiece (0.1mm/.004")	5103-M-EPD10X	
Digital camera	ISM-CM63	
Camera adapter*	5101-M-ADAPTER	

*Digital camera must be used with camera adapter

ZOOM STEREO MICROSCOPES (STANDARD TYPE)



LED ring light (optional)



SPECIFICATION

Part No.	ISM-ZS50	ISM-ZS50T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field .87" DIA)	
Objective	0.8X~5X (zoom)	
Zoom ratio	1:6.3	
Pupil distance	2.17~2.95" (adjustable)	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	4.53"	
Max. workpiece height	2.95"	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60HZ	
Dimension (L×W×H)	11.42×10.24×18.90"	
Weight	10.80lb	

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
3.94" DIA glass plate	1 pc
3.94" DIA white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X*
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (graduation 0.1mm/.004")	ISM-ZS50-EPD10X
	WF15X (view field .63" DIA)	ISM-ZS50-EP15X
	WF20X (view field .47" DIA)	ISM-ZS50-EP20X
LED ring light	ISM-ZS-RL	
Sleeve for auxiliary objective	ISM-ZS200-ADAPTER	
Digital camera for ISM-ZS50T	ISM-CM20, ISM-CM63, ISM-ZS70-S	
Camera adapter 0.5X for ISM-ZS50T**	ISM-MAS-ADAPTER	

*0.5X auxiliary objective must be used with ISM-ZS200-ADAPTER

**Digital camera must be used with camera adapter 0.5X

ZOOM STEREO MICROSCOPE (BASIC TYPE) PART NO. ISM-ZS30



SPECIFICATION

Optical tube	binocular
Eyepiece (wide field)	10X (view field .8" DIA)
Objective	1X~4.5X (zoom)
Zoom ratio	1:4.5
Pupil distance	2.17~2.95" (adjustable)
Diopter adjustment	±5 diopter (two eyepieces)
Working distance of objective	3.82"
Max. workpiece height	2.36"
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60HZ
Dimension (L×W×H)	10.24×7.48×15.75"
Weight	9.48lb

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
3.74" DIA glass plate	1 pc
3.74" DIA white/black plate	1 pc
Anti-dust cover	1 pc



LED ring light (optional)



OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS30-OB05X *
	0.63X	ISM-ZS30-OB06X *
	0.75X	ISM-ZS30-OB07X *
Eyepiece	2X	ISM-ZS30-OB2X
	10X dividing eyepiece (graduation 0.1mm/.004")	ISM-ZS30-EPD10X
	WF15X (view field .63" DIA)	ISM-ZS50-EP15X
	WF20X (view field .47" DIA)	ISM-ZS50-EP20X
LED ring light		ISM-ZS-RL
Sleeve for auxiliary objective		ISM-ZS30-ADAPTER
Digital camera		ISM-CM63
Camera adapter 0.75X **		ISM-AD-0D75

* 0.5X, 0.63X and 0.75X auxiliary objectives must be used with ISM-ZS30-ADAPTER

** Digital camera must be used with camera adapter 0.75X

LONG WORKING DISTANCE STEREO MICROSCOPE (LOW MAGNIFICATION)

SPECIFICATION

Part No.	5305-ZS90 (with magnetic base)
Magnification	8X
Eyepiece (wide field)	10X (view field .79" DIA)
Objective	0.8X
Pupil distance	2.17~2.97"
Diopter adjustment	±5 diopter (one eyepiece)
Working distance of objective	4.53"
Max. workpiece height	5.51"
Dimension (L×W×H)	11.02x7.09x16.1"
Weight	4.63lb

STANDARD DELIVERY

Main unit	1 pc
10X eyepieces	1 pair
0.8X objective	1 pc
Anti-dust cover	1 pc



5305-ZS90



LED ring light (optional)

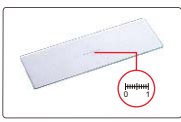
OPTIONAL ACCESSORY

Eyepiece	WF5X (view field .79" DIA)	5305-ZS80-EP5X
	WF15X (view field .59" DIA)	5305-ZS80-EP15X
	WF20X (view field .39" DIA)	5305-ZS80-EP20X
LED ring light		ISM-ZS-RL

ATTENTION: ADAPTERS ARE NEEDED ACCORDING TO MICROSCOPES

DIGITAL CAMERA FOR MICROSCOPES PART NO. ISM-CM63

- To be used with computers
- Sony Exmor back-illuminated CMOS sensor
- USB3.0 transmission
- Automatic exposure, gain adjustment, white balance, chrominance adjustment, saturation adjustment, gamma correction, luminance adjustment, contrast adjustment



glass calibration rule (included, graduation .004"/0.1mm)



C-mount port



software (included)

selectable resolution

measurement items

real time gray calibration

histogram (quantify the distribution of color and brightness)

black balance (reduce color difference)

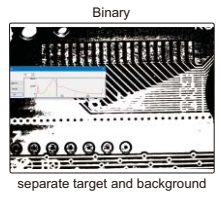
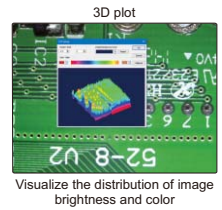
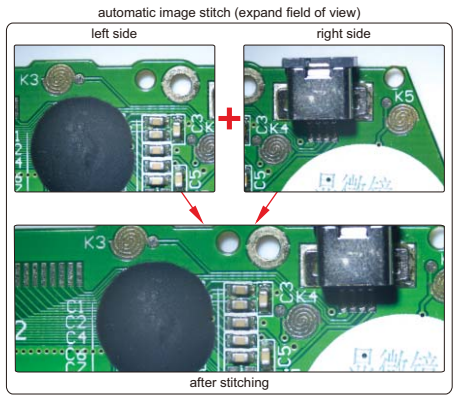
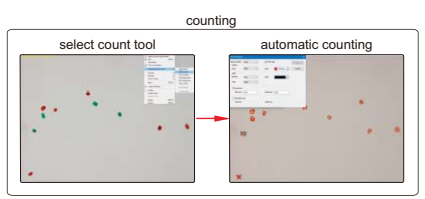
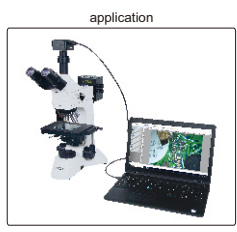
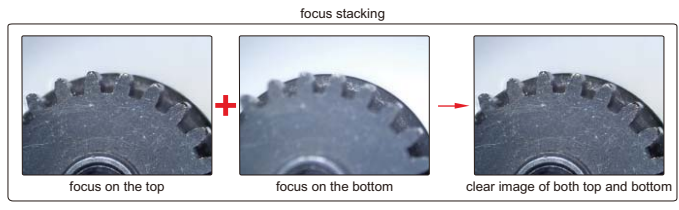
flat field correction (reduce brightness difference)

dark field correction (reduce thermal noise)

The software can control image completely, including measurement, image stitch, extend focus depth, image gray processing, RGB histogram observation, image color sampling, 3D plot(3D representation of image intensity), image exposure, white balance, black balance, image bit depth, flat field correction and dark field correction, etc.

Measurement tools:

- | | |
|---|--|
| measure length of line or distance between two points | measure distance between two parallel lines |
| measure rectangle | measure width and diameter of ring |
| measure angle | measure diameter, length, perimeter angle of arc |
| measure radius, girth and area of circle | measure area of polygon |
| measure axis lengths, girth and area of ellipse | measure center distance between two circles |
| calibration | measure length of open curve |



SPECIFICATION

Sensor (back-up)	1/1.8" CMOS
Resolution	3072x2048
Pixel	6.3M
Single pixel size	.00009x.00009"
Spectral range	380-650nm (with infrared cut filter)
Frame rate	30fps
Sampling average	1x1
Exposure time	0.1ms~15s
Power supply	USB port
Weight	.88lb

STANDAER DELIVERY

Camera (USB cable included)	1 pc
Glass calibration rule (graduation .004"/0.1mm)	1 pc
Software	1 pc

OPTIONAL ACCESSORY

Adapter 0.75X	ISM-AD-0D75
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COMPUTER REQUIREMENT

Operation system	Windows/7/8/10
CPU	Intel Core 2 2.8Hz or above
Memery	2GB or above
USB port	USB3.0 (recommand) or USB2.0
Display	17" or above

TABLE MAGNIFIER WITH ILLUMINATION PART NO. 7517-3D

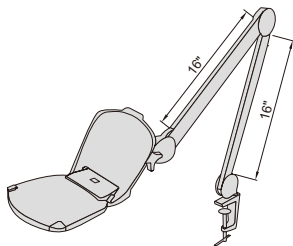
- Four steps brightness adjustment
- LED illumination, working life 20000h
- Resin lens

SPECIFICATION

Magnification	1.75X
Diopter	3D
Lens diameter	4.921" DIA
Illumination	power: 3W, illuminance: 260lm
Power supply	power adapter 12V, 1A



TABLE MAGNIFIERS WITH ILLUMINATION



- LED illumination, working life 20000h
- Resin lens

SPECIFICATION

Part No.	7520-320D	7521-3D
Magnification	two magnification 1.75X/6X	1.75X
Diopter	3D/20D	3D
Lens diameter	6.4×5"	5" DIA
Illumination	power: 6W, illumination: 550lm	
Power supply	power adapter 12V, 1A	



7520-320D



7521-3D

TABLE MAGNIFIER WITH ILLUMINATION PART NO. 7516-5D-U

- LED illumination, working life 20000h

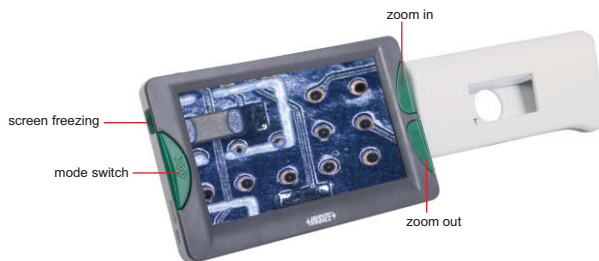
SPECIFICATION

Magnification	2.25X
Diopter	5D
Lens diameter	4.803" DIA
Illumination	power: 7W, illuminance: 420lm
Power supply	100~240V, 50~60Hz



DIGITAL MAGNIFIER PART NO. 7525-D4

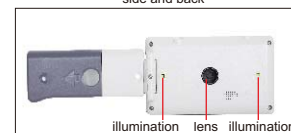
- 720P60 camera
- Auto focus
- With screen freezing function
- 26 color modes can be switched to meet the needs of different people
- Port to TV
- Automatic shutdown after 3 minutes



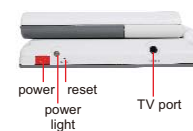
after the handle is folded, the magnifier can be directly placed on the object for observation



side and back



illumination lens illumination



power reset power light TV port



screen freezing type-C port



VIDEO

SPECIFICATION

Screen size	4.3"
Screen resolution	480x272
Magnification	2X-32X
Pixel	8M
Focus	manual/automatic
Color mode (26 modes)	color mode, color enhancement mode, negative mode, monochrome mode, black on white, white on black, blue on white, white on blue, yellow on black, black on yellow, yellow on blue, blue on yellow, green on white, white on green, orange on white, white on orange, red on black, black on red, orange on black, black on orange, yellow on green, green on yellow, red on white, white on red, yellow on white, white on yellow
Output	TV
Charging port	type-C
Lithium battery	1600mAH (for 4 hours working)
Dimension(LxWxH)	4.84x1.54x2.99" (when the handle is folded)
Weight	.46lb

STANDARD DELIVERY

Main unit	1 pc
Video output cable	1 pc
USB charging cable	1 pc
Power adapter	1 pc

DIGITAL MAGNIFIER PART NO. 7526-D5

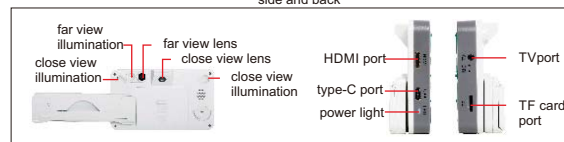


VIDEO

- 720P60 (close view) and 1080P30 (far view) cameras
- Double autofocus
- 26 color modes can be switched to meet the needs of different people
- Adopt folding bracket
- Detachable handle design, suitable for left-handed or right-handed use
- TV and HDMI ports to TV and display
- Automatic shutdown after 3 minutes

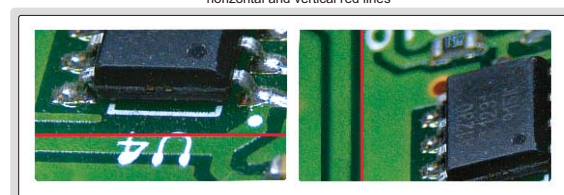


side and back



far view illumination far view lens close view illumination close view lens HDMI port TV port type-C port power light TF card port

horizontal and vertical red lines



after the handle is folded, the magnifier can be directly placed on the object for observation

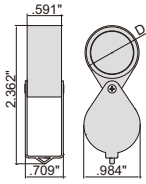


Screen size	5"
Screen resolution	800x480
Magnification	2X-32X
Close view pixel	8M
Far view pixel	8M
Focus	manual/automatic
Color mode (26 modes)	color mode, color enhancement mode, negative mode, monochrome mode, black on white, white on black, blue on white, white on blue, yellow on black, black on yellow, yellow on blue, blue on yellow, green on white, white on green, orange on white, white on orange, red on black, black on red, orange on black, black on orange, yellow on green, green on yellow, red on white, white on red, yellow on white, white on yellow
Line	horizontal and vertical red lines
Function	screen freezing, image moving, photo playback, and high definition storage
Output	TV and HDMI
Storage	supports up to 32G TF card
Charging port	type-C
Lithium battery	2500mAH (for 4 hours working)
Dimension (LxWxH)	5.71x1.18x3.35" (when the handle is folded)
Weight	.61lb

STANDARD DELIVERY

Main unit	1 pc
HDMI cable	1 pc
Video output cable	1 pc
USB charging cable	1 pc
Power adapter	1 pc

FOLDING MAGNIFIER



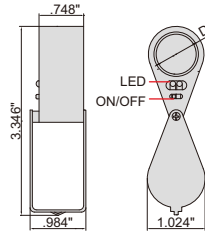
7511-8



- Glass lens

Part No.	Magnification	Lens diameter (D)
7511-8	10X	.827" DIA

FOLDING MAGNIFIER WITH ILLUMINATION



7515-10



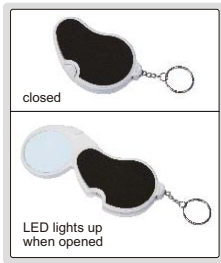
2 pcs LED

- Resin lens
- Powered by 3xLR927 batteries (included)

Part No.	Magnification	Lens diameter (D)
7515-10	10X	.867" DIA



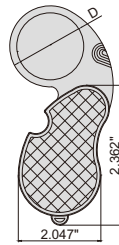
FOLDING MAGNIFIER WITH ILLUMINATION



7514-1



LED



- Resin lens
- Powered by 2xCR1620 batteries (included)
- LED lights up automatically when opened

Part No.	Magnification	Lens diameter (D)
7514-1	2.5X	1.772" DIA

MAGNIFIER WITH ILLUMINATION



7524-10

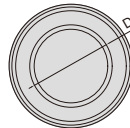
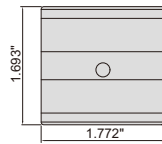
- Glass lens
- Powered by 3xAG7 batteries
- 3 pcs LED and 3 pcs UV
- Base with scale, graduation: 1/16", 0.5mm

Part No.	Magnification	Lens diameter (D)
7524-10	10X	1.181 DIA

MEASURING MAGNIFIERS (WITH ILLUMINATION)

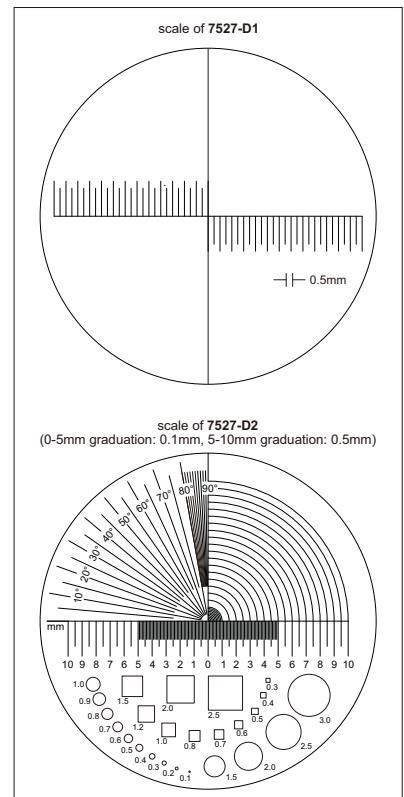
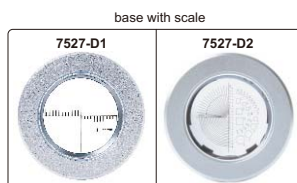


7527-D1



- Base with scale
- With 5 white LED and 5 UV LED
- Charging port: Type-C
- Work for 1.5h after fully charged

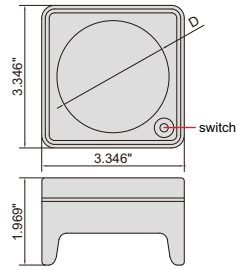
Part No.	Magnification	Lens diameter (D)
7527-D1	10X	1.181" DIA
7527-D2	10X	1.181" DIA



MAGNIFIER WITH ILLUMINATION



7528-3



- Glass lens
- With 4 white LED, three levels brightness adjustment
- Charging port: Type-C

Part No.	Magnification	Lens diameter (D)
7528-3	3X	2.756" DIA

MAGNIFIERS WITH ILLUMINATION

POPULAR MODEL



7513-2

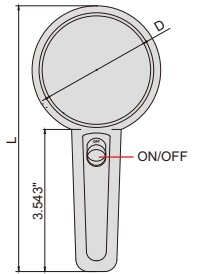


7513-4



- Glass lens
- Powered by 3xAAA batteries (included)

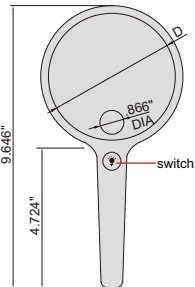
Part No.	Magnification	Lens diameter (D)	L
7513-2	2X	2.953" DIA	6.693"
7513-4	4X	1.969" DIA	5.709"



MAGNIFIER WITH ILLUMINATION



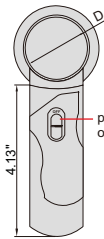
7529-24



- Resin lens
- With 20 white LED, three levels brightness adjustment
- Charging port: Type-C

Part No.	Magnification	Lens diameter (D)
7529-24	2X/4X	4.134" DIA

MAGNIFIER WITH TWO LENSES



7522-610



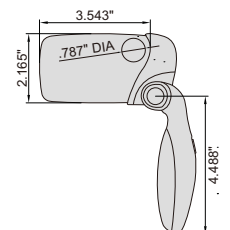
- Resin lens
- Interchangeable lenses
- Powered by 3 pcs AAA batteries (included)

Part No.	Magnification	Lens number	Magnification	Lens diameter (D)
7522-610	6X	2 pcs	6X	1.97" DIA
			10X	1.46" DIA

MAGNIFIER WITH ILLUMINATION



7518-26



- Two magnifications
- LED illumination
- Powered by 2 pcs AAA batteries (included)
- Resin lens

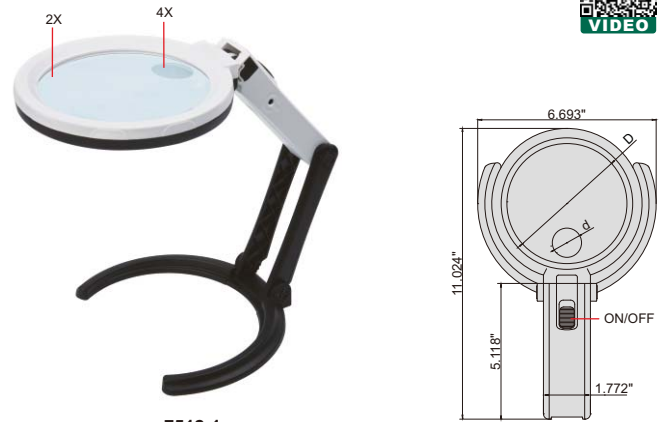
Part No.	Magnification	Lens size
7518-26	2X/6X	3.543x2.165"

THREE WAYS MAGNIFIER WITH ILLUMINATION



- Resin lens
- Powered by 2xAA batteries (included) or power adapter (110~240V, 50~60Hz)

Part No.	Magnification	Lens diameter (D/d)
7512-1	2X/4X	4.724" DIA/1.102" DIA



7512-1

MAGNIFICATION GLASSES



- Resin lens
- Interchangeable lenses
- Powered by 3 pcs AAA batteries (included)

7523-3D5



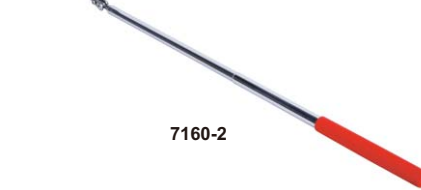
Part No.	Lens number	Magnification
7523-3D5	5 pcs	1X
		1.5X
		2X
		2.5X
		3.5X



TELESCOPING INSPECTION MIRRORS



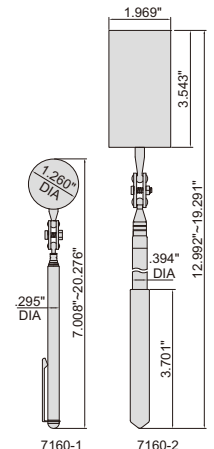
7160-1



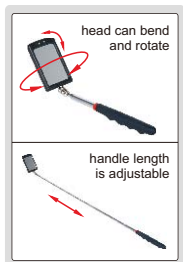
7160-2

- Inspect hidden areas
- Rotation of the mirror: 360°
- Length of handle is adjustable, handle is made of stainless steel

Part No.	Size of mirror	Length
7160-1	1.260" DIA	7.008~20.276"
7160-2	1.969x3.543"	12.992~19.291"



TELESCOPING INSPECTION MIRROR (WITH ILLUMINATION)



7162-1

- Inspect hidden areas
- Head can bend and rotate
- Telescoping handle, made of stainless steel
- With two CR2032 batteries

Part No.	Size of mirror	Length
7162-1	2.559x1.654"	11.220~34.449"

TELESCOPING MAGNETIC PICK-UP

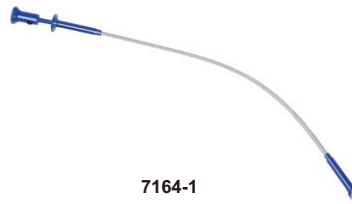
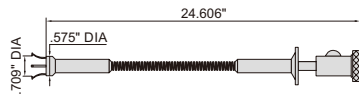


7161-1

- Pick up metal parts from hidden areas
- Rotation of the magnetic head: 360°
- Length of handle is adjustable, handle is made of stainless steel

Part No.	Size of magnetic tip	Magnetic force	Length
7161-1	.236" DIA	0.99lbf	7.008~22.913"

FLEXIBLE PICK-UP AND FLASHLIGHT



flexible spring rod



magnetic head



flashlight head



4 retractable claws

- For illumination and pick up steel parts in hidden areas
- Flexible spring rod, made of stainless steel
- Three LR44 batteries

7164-1

Part No.	Magnetic force	Flashlight range	Battery life
7164-1	1.98lbf	40"	24h

TELESCOPING MAGNETIC PICK-UP AND FLASHLIGHT

- Flashlight range: 118"
- For illumination and pick up metal parts in hidden areas
- Head can bend
- Telescoping handle, made of stainless steel
- Magnetic head and end
- With four LR44 batteries



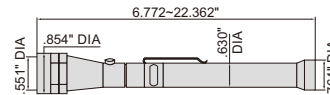
magnetic head



magnetic end to attach on steel surfaces



7163-1



head can bend, handle length is extendible



handle is closed

Part No.	Magnetic force of the end	Magnetic force of the head	Battery life	Length
7163-1	8lbf	4.6lbf	8h	6.772~22.362"

VIDEOSCOPIES

REAR FIBER ILLUMINATION



ISV-K-CLAMP (optional)



changeable lens cable

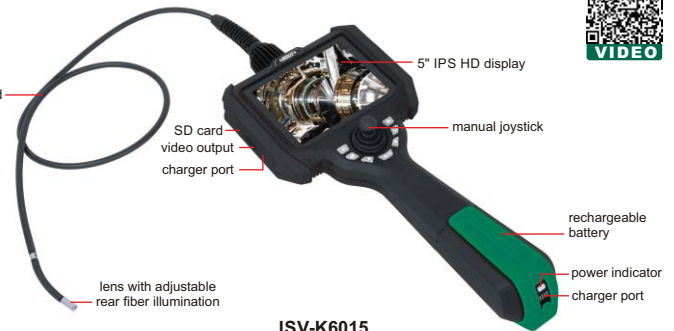


ISV-K-MAGNET (optional)



ISV-K-HOOK (optional)

tungsten wire weaved cable length: 60"



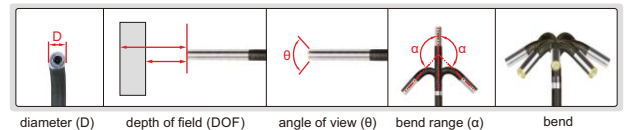
ISV-K6015



VIDEO

SPECIFICATION

Part No.	ISV-K3915	ISV-K6015	
Lens	diameter (D)	.154" DIA	.236" DIA
	pixel	0.92M	
	resolution	1280×720	
	depth of field	.315~5.906"	.472~7.874"
	bending direction	four directions	four directions
	bending range (α)	±160°	
	angle of view (θ)	120°	
	illumination	rear fiber	
	lens	sapphire glass lens	
	dust/waterproof	IP67	
Cable	length	60"	
	type	tungsten wire weaved cable	
Main unit	display	5" high definition LCD	
	function	take pictures, take videos	
	file format	picture: JPG, video: MP4	
	image process	image zoom (1X, 2X, 3X, 4X)	
	image control	freeze, flip over, playback and analog ruler	
	memory	memory card	
	output	USB, HDMI	
power supply	rechargeable lithium battery (working time ≥ 4hours), AC/DC adapter (for continuous working)		
Weight	2.205lb		



STANDARD DELIVERY

Main unit	1 pc
32G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Tripod	1 pc
AC/DC adapter	1 pc

OPERATION ENVIRONMENT

Main unit	14~122°F, no preheat
Operation temperature	-4~158°F
Storage temperature	-4~140°F
Relative humidity	maximum 90%, no condensation

OPTIONAL ACCESSORY

WIFI output	ISV-K-WIFI (must be installed in factory, only for Android OS)
Temperature alarm	ISV-K-HTALARM (must be installed in factory)
Hook	ISV-K-HOOK (must be installed in factory)
Magnet	ISV-K-MAGNET (must be installed in factory)
Clamp	ISV-K-CLAMP

MOBILE PHONE VIDEOSCOPE PART NO. ISV-P6

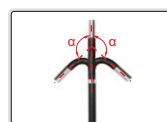
- For Android and IOS mobile phones

SPECIFICATION

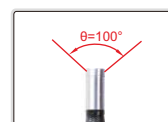
Diameter of lens (D)	.24"±.008" DIA
Length of cable	40"
Resolution	960×720, 1280×720 (switchable)
Depth of field	.79"~∞
Angle of view (θ)	100°
Bending range (α)	0~180°
Illumination	LED with 3 levels control
Cable type	wear resistant
Interface	USB, type-C
Mobile phone system	Android, IOS
Power supply	rechargeable battery (for 2 hours working)
Dimension (L×W×H)	7.68×2.24×4.13"
Weight	1lb

STANDARD DELIVERY

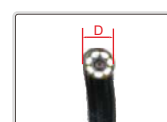
Main unit (with cable)	1 pc
Type-C cable	1 pc
Micro USB cable	1 pc
Iphone cable	1 pc
Charging cable	1 pc



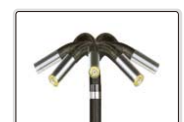
bending of lens up to 180°



angle of view



lens with LED



bend in any direction

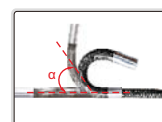
VIDEOSCOPE (BASIC TYPE)

TUNGSTEN WIRE WEAVED CABLE
BREAK AND WEAR RESISTANCE



SPECIFICATION

Part No.	ISV-T105	
Lens	diameter (D)	.23" DIA
	pixel	1M
	resolution	1280×720
	depth of field	.79"~5.90"
	bending direction	360°
	bending range (α)	0°~220°
	angle of view (θ)	120°
	illumination	7 pcs LED, with 6 levels control
	illuminance	25000 Lux
	lens	sapphire glass lens
	dust/waterproof	IP67
	bend control	manual joystick
temperature alarm	temperature sensor (optional)	
Cable	length	40"
	type	tungsten wire weaved cable
Main unit	display	3.5" IPS full-view display
	display resolution	640×480
	function	take pictures, take videos
	file format	picture: JPG, video: MP4
	image process	image zoom (1X, 2X, 3X, 4X, 5X)
	memory	memory card (maximum: 64G)
	output	USB, HDMI, WIFI (optional)
	dust/waterproof	IP65
	power supply	rechargeable lithium battery (working time ≥ 3 hours; optional: additional battery, working time ≥ 9 hours) AC/DC adapter (for continuous working)
	Weight	2.2lb



220° bending angle



120° view angle



LED 6 levels control



360° bending direction

STANDARD DELIVERY

Main unit (with cable & lens)	1 pc
16G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Battery	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Additional battery	ISV-S106-BATTERY (must be installed in factory)
WIFI output	ISV-S106-WIFI
Temperature alarm	ISV-S106-HT-ALARM

VIDEOSCOPE (BASIC TYPE) PART NO. ISV-E40



IP67
WATERPROOF

MEMORY CABLE CAN
BE FIXED AT ANY SHAPE



45° mirror (included)

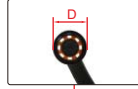


hook (included)



magnet pick up (included)

lens with 8 pcs LED
adjustable illumination



memory
cable



SPECIFICATION

Lens	diameter (D)	.32" DIA
	pixel	0.92M
	resolution	1280x720
	depth of field	1.18~3.15"
	angle of view	77°
	illumination	3 levels
	dust/waterproof	IP67
Cable	length	47"
	type	memory (can be set at any shape)
Main unit	display	5" IPS LCD
	function	take picture, take video
	file format	picture: JPG, video: MOV
	image process	image zoom (1.5X, 2X, 3X, 4X)
	memory	memory card (optional)
	output	type-C
	power supply	rechargeable lithium battery (for 5 hours working)
dimension	8.54×6.10×5.16"	
Weight	1.12lb	

STANDARD DELIVERY

Main unit	1 pc
45° mirror	1 pc
Hook	1 pc
Magnet pick up	1 pc

OPTIONAL ACCESSORY

32G memory card	ISV-E40-CARD
Card reader	ISV-E40-READER

OPERATION ENVIRONMENT

Operation temperature	14~122°F
Storage temperature	-4~140°F
Operation humidity	15%~85%

VIDEOSCOPE (ECONOMIC TYPE) PART NO. ISV-E30

MEMORY CABLE CAN
BE FIXED AT ANY SHAPE



cable can be wrapped
around the main unit



hook (included)



magnet pick up (included)

lens
(adjustable
illumination)

memory cable
length: 40"



IP67
WATERPROOF



SPECIFICATION

Lens	diameter	.21" DIA
	pixel	0.4M
	depth of field	1.18~3.15"
	angle of view	72°
	illumination	8 levels
	dust/waterproof	IP67
Cable	length	40"
	type	memory (can be set at any shape)
Main unit	display	4.3" LCD
	function	take picture, take video
	file format	picture: JPG, video: AVI
	image zoom	2X
	memory card	memory card (optional)
	output	micro USB
	power supply	AA battery
dimension	6.06×1.28×3.45"	
Weight	.62lb	

STANDARD DELIVERY

Main unit	1 pc
Hook	1 pc
Magnet pick up	1 pc
AA battery	4 pcs

OPTIONAL ACCESSORY

32G memory card	ISV-E40-CARD
Card reader	ISV-E40-READER

OPERATION ENVIRONMENT

Operation temperature	14~122°F
Storage temperature	-4~140°F
Operation humidity	15%~85%

COATING THICKNESS GAGE (HIGH PRECISION) PART NO. ISO-8000FN

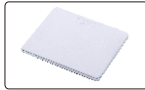


FOR MAGNETIC AND
NON-MAGNETIC SUBSTRATES

SUITABLE FOR THIN
COATING BELOW .4mils



calibration foils
(included)



zero calibration plate
(included)



eddy current probe
(optional)



stand (optional)



magnetic induction probe
(included)

- Can measure thickness of thin coating below .4mils
- High repeatability
- Magnetic induction probe measures the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Eddy current probe measures the thickness of non-conductive coating on non-magnetic metal substrate
Substrate: copper, aluminum, zinc, non-magnetic stainless steel
Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- Maximum, minimum, average and variance values can be calculated automatically

SPECIFICATION

Probe	magnetic induction probe (included)	eddy current probe (optional) *
Measuring range	0~19.6mils	0~59.0mils
Resolution	.01mils	
Accuracy	±(.02+2%L)mils L is measuring thickness in mils	
Repeatability	≤(.008+.8%L)mils L is measuring thickness in mils	
Measuring mode	single and continuous	
Measure interval	single mode	1.5s .8s
	continuous mode	.4s .4s
Calibration mode	zero calibration and multi-points calibration (1~5 points)	
Minimum substrate thickness	.004"	.002"
Minimum measuring area	.3" DIA	
Minimum radius of curvature workpieces	convex surface	.06"
	concave surface	.4"
Unit	µm/mil	
Power supply	4×1.5V AAA batteries	
Dimension	5.8"×3.0"×1.0"	
Weight	.33lb	

STANDARD DELIVERY

Main unit	1 pc
Magnetic induction probe	1 pc
Zero calibration plate	1 pc
Calibration foils (.22mils, .46mils, .97mils, 1.97mils, 3.94mils, 9.92mils, 15.35mils)	1 set
1.5V AAA battery	4 pcs

OPTIONAL ACCESSORY

Eddy current probe (with zero calibration plate)	ISO-8000FN-N1500 *
Stand	ISO-8000FN-STAND

*For precision measurement of thin coating below .4mils, please use the stand for eddy current probe

COATING THICKNESS GAGE PART NO. 9501-1200

DATA OUTPUT BLUETOOTH FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES

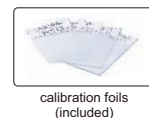
POPULAR MODEL



- Magnetic induction probe (FE) measures the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate.
Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
Coating: zinc, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Eddy current probe (NFE) measures the thickness of non-conductive coating on non-magnetic metal substrate.
Substrate: copper, aluminum, zinc, non-magnetic stainless steel
Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- Tolerance measurement
- Data statistic, including average, variance, maximum and minimum values
- Data can be sent to Excel by connecting to computers via bluetooth or cable of receiver
- Support bluetooth printer
- Automatic power off

SPECIFICATION

Probe type	FE (included) magnetic induction probe	NFE (optional) eddy current probe	FE90 (optional) magnetic induction probe for bores and grooves	FE10 (optional) magnetic induction probe for large range
Measuring range	0~50mils	0~50mils	0~50mils	20~400mils
Accuracy	±(3%L+.04)mils ±(3%L+.4)mils	(range≤50mils) (range>50mils)	L is measuring thickness in mils	
Resolution	.01mils			
Measuring mode	continuous and single			
Minimum substrate thickness	.02"	.01"	.02"	.08"
Minimum measuring area	.3" DIA	.2" DIA	.3" DIA	1.6" DIA
Minimum curvature radius of convex workpiece	.06"	.12"	—	.40"
Memory	600			
Output	USB			
Power supply	2×1.5V AA batteries			
Dimension	5.31×3.03×1.26"			
Weight	.38lb			



STANDARD DELIVERY

Main unit	1 pc
Magnetic induction probe (FE)	1 pc
Zero calibration block for FE probe	1 pc
Calibration foils (2/4/10/20/40mils)	1 set
1.5V AA battery	2 pcs
Software and USB cable	1 pc

OPTIONAL ACCESSORY

Receiver	ISR-C300-RECEIVER
Cable of receiver	9501-1200-CABLE
Bluetooth printer	ISR-C002-PRINTER
Eddy current probe (NFE) with zero calibration block	9501-1200-NFE
Magnetic induction probe (FE90) for bores and grooves	9501-1200-FE90
Magnetic induction probe (FE10) for large range	9501-1200-FE10

COATING THICKNESS GAGE (BASIC TYPE) PART NO. ISO-1200FN



FOR MAGNETIC AND
NON-MAGNETIC SUBSTRATES



Fe zero calibration plate
(included)



NFe zero calibration plate
(included)



standard foil (included)



- Probe is suitable for both magnetic and non-magnetic metal substrates
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Can 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 (not for chrome and zinc plating)
- 3 measuring modes: Fe, NFe, Fe/NFe
- Store 9 measuring records
- Small and portable, easy for operation

SPECIFICATION

Measuring range	0~78.5mil	
Resolution	.01mil (range<10mil) .1mil (10mil≤range≤78.5mil)	
Accuracy	±(.08mil+3%L) L is measuring thickness in mil	
Measure interval	.5s	
Calibration mode	zero calibration	
Measuring mode	Fe, NFe, Fe/NFe	
Minimum substrate thickness	Fe	.008"
	NFe	.002"
Minimum measuring area	.98" DIA	
Minimum radius of curvature workpieces	convex surface	.2"
	concave surface	.98"
Unit	μm/mil	
Power supply	2×1.5V AAA batteries	
Main unit dimension	4.0×2.4×1.1"	
Probe dimension	2.8×1.0×0.9"	
Weight	.25lb	

STANDARD DELIVERY

Main unit	1 pc
Fe zero calibration plate	1 pc
NFe zero calibration plate	1 pc
Standard foil (3.94mil)	1 pc
1.5V AAA battery	2 pcs

COATING THICKNESS GAGE (BASIC TYPE) PART NO. ISO-1000FN



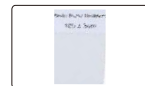
FOR MAGNETIC AND
NON-MAGNETIC SUBSTRATES



Fe zero calibration plate
(included)



NFe zero calibration plate
(included)



standard foil (included)

- Probe is suitable for both magnetic and non-magnetic metal substrates
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Can 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 (not for chrome and zinc plating)
- 3 measuring modes: Fe, NFe, Fe/NFe
- Store 9 measuring records
- Small and portable, easy for operation

SPECIFICATION

Measuring range	0~78.5mil	
Resolution	.01mil (range<10mil) .1mil (10mil≤range≤78.5mil)	
Accuracy	±(.08mil+3%L) L is measuring thickness in mil	
Measure interval	.5s	
Calibration mode	zero calibration	
Measuring mode	Fe, NFe, Fe/NFe	
Minimum substrate thickness	Fe	.008"
	NFe	.002"
Minimum measuring area	.98" DIA	
Minimum radius of curvature workpieces	convex surface	.2"
	concave surface	.98"
Unit	μm/mil	
Power supply	2×1.5V AAA batteries	
Dimension	4.0×2.4×1.1"	
Weight	.17lb	

STANDARD DELIVERY

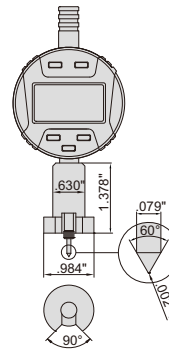
Main unit	1 pc
Fe zero calibration plate	1 pc
NFe zero calibration plate	1 pc
Standard foil (3.94mil)	1 pc
1.5V AAA battery	2 pcs

DIGITAL SURFACE PROFILE GAGE

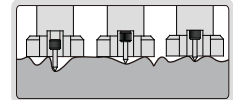
DISPLAY MAXIMUM, MINIMUM, DIFFERENCE VALUE BETWEEN MAXIMUM AND MINIMUM

DATA OUTPUT

- Measure peak-to-valley height of blast cleaned surface. If the profile is too low, the adhesion of the coating to the surface will be reduced. If the profile is too high, there is the danger that the profile peaks will remain uncoated, allowing rust spots to occur.
- Meet ASTM D 4417-B
- Zero set block is included, set zero before measurement
- 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 (time is adjustable)
- Data output
- Stainless steel base
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M)



measure peak-to-valley height of blast cleaned surfaces



Part No.	Range	Digital indicator stroke	Digital indicator resolution	Accuracy
2844-10	0-.5"/0-12.7mm	.5"/12.7mm	.00005"/0.001mm	±.0002"

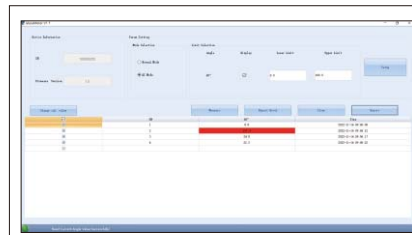
60° GLOSS METER (BASIC TYPE) PART NO. 5702-DG6



base with calibration block (included)



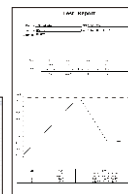
software (included) . test can be controlled from the software, display test data and report



software



measurement data is export to EXCEL



report

- To test the gloss of coating, such as painting, varnish, printing ink, etc.
- To test the material surfaces, such as metal, granite, ceramic, plastic, paper, etc.
- According to ISO 2813, ISO 7668, ASTM D523, ASTM D2457, DIN 67530
- Automatic judgement after setting high and low limits
- Automatic power off

SPECIFICATION

Incidence angle	60°
Measuring range	0-200GU
Resolution	0.1GU
Accuracy	±1.5GU (range<120GU) ±1.5% (range≥120GU)
Repeatability	0.2GU (range<120GU) 0.2% (range≥120GU)
Zero error	0.1GU
Measuring area	.79×.39"
Power supply	rechargeable battery
Data port	USB
Dimension	5.31×1.77×2.95"
Weight	.52lb

STANDARD DELIVERY

Main unit	1 pc
Base with calibration block	1 pc
U disk	1 pc
AC/DC adapter	1 pc
USB data cable	1 pc
Cleaning cloth	1 pc

60° GLOSS METER PART NO. ISQ-DG6



base with calibration block (included)



connect mobile phone via bluetooth (only Android system)



- To test the gloss of coating, such as painting, varnish, printing ink, etc.
- To test the material surfaces, such as metal, granite, ceramic, plastic, paper, etc.
- According to ISO 2813, ASTM D2457, ASTM D523
- Automatic power off

SPECIFICATION

Incidence angle	60°
Measuring range	0-150GU
Resolution	0.1GU
Accuracy	±1.2GU
Repeatability	0.4GU
Zero set error	0.2GU
Measuring area	.79×.39"
Output	bluetooth
Power supply	1×1.5V AA battery
Dimension	4.84×1.50×2.56"
Weight	.66lb

STANDARD DELIVERY

Main unit	1 pc
Base with calibration block	1 pc
Spare calibration block	1 pc

SPECTROPHOTOMETER PART NO. 5701-D40

- Conforms with CIE No.15, ISO7724-1, ASTM E1164 and DIN5033 Teil7 standards
- 3.5" IPS full color screen
- Use long life and low power consumption combined LED light source, include UV and exclude UV measurement
- Camera locating function, switchable 0.43in/0.24in/0.04×0.12in aperture
- Large capacity storage space, over 20,000 measurement data
- Two standard observer angles, a variety of illuminant, a variety of color indexes, conforms with a variety of standard colorimetric data
- Measure sample spectra, accurate Lab data, can be used in color matching and accurate color transmission

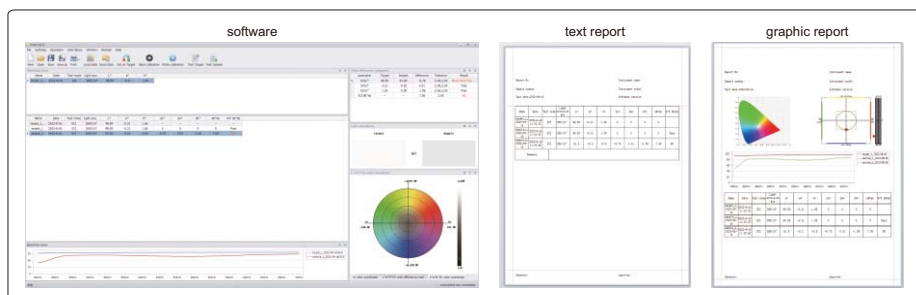


DATA
OUTPUT

GRATING
SPECTROPHOTOMETRIC

MATCHING COLOR
CARD QUICKLY

FOUR KINDS OF
APERTURE



software (included) , test can be controlled from the software, display test data, report



white calibration cavity (included)

SPECIFICATION

Optical geometry	D/8 (diffused illumination/8° direction reception) SCI+SCE (specular component included+specular component excluded)	
Integrating sphere size	1.57" DIA	
Light source	LED (full band balanced LED) +UV	
Spectrophotometric mode	grating	
Sensor	dual optical path high precise CMOS array sensor	
Wavelength range	15.75~27.56μm	
Wavelength interval	0.39μm	
Reflectance measurement range	0~200%	
Reflectance resolution	0.01%	
Display resolution	0.01	
Illumination area/Aperture	MAV .43" DIA; SAV .24" DIA, .12" DIA; MINI .04×.12"	
Color space	CIE-Lab, CIE-LCh, HunterLab, CIE Luv, XYZ, Yxy, RGB	
Color difference formula	ΔE^*ab , ΔE^*cmc , ΔE^*94 , ΔE^*00	
Other colorimetric index	whiteness (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, Hunter, taube Berger Stensby), yellowness (ASTM D1925, ASTM 313-00, ASTM E313-73), blackness (My, dM), color fastness, tint (ASTM E313-73), color density CMYK (A, T, E, M), milm, munsell, opacity, color strength	
Observer angle	2°/10°	
Illuminant	A, B, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, U30, U35, DLF, NBF, T183, T184, Id50, Id65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2	
Measuring time	about 1.5s	
Repeatability	spectral reflectance	within 0.08% of standard deviation
	colorimetric values	$\Delta E^*ab \leq 0.025$ (after whiteboard correction, measuring the whiteboard 30 times at 5s interval)
Inter-instrument error	$\Delta E^*ab \leq 0.25$ (BCRA series II, average value of 12 color plates)	
Output	USB, Bluetooth	
Light source lifetime	10 years, more than 1 million times measurements	
Battery	3.7V/3000mAh, rechargeable 8000 times continuous tests	
Dimension	3.74×5.08×9.09"	
Weight	1.65lb	

connect to computer



computer is optional

STANDARD DELIVERY

Main unit	1 pc
White calibration cavity	1 pc
Measuring aperture	3 pcs
USB cable	1 pc
USB disk	1 pc
AC/DC adapter	1 pc

COLORIMETER (BASIC TYPE) PART NO. 5700-LS35



- Conforms with CIE 15, CIE S 005, ISO 7724-1 and ISO 13655 standards
- 3.5-inch IPS display and capacity touch panel
- Contains multiple color cards and can match the closest color code quickly
- QC testing function, can set color difference threshold
- Able to store 1000 colors and 1000 color comparison
- 3.7V/4000mAh battery, 10000 continuous measurements

SPECIFICATION

Illumination geometry	D/8, specular component include (SCI)
Illumination light source	full spectrum LED light source
Measurement conditions	light source D65, field of view 10°
Measuring time	about 1s
Color space	CIE Lab, Luv, LCh, Yxy, CMYK, RGB, Hex
Color difference formula	$\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc (2:1), \Delta E^*cmc (1:1), \Delta E^*00$
Repeatability	standard deviation ΔE^*ab is within 0.03 (measurement condition: the average value of 30 measurements on the whiteboard at an interval of 3s after calibration)
Charging interface	USB (type-C)
Dimension	3.39×2.48×6.22"
Weight	.54lb

STANDARD DELIVERY

Main unit	1 pc
White calibration cavity	1 pc
USB cable	1 pc
AC/DC adapter	1 pc
Cleaning cloth	1 pc
Locating plate	1 pc



white calibration cavity (included)

ULTRASONIC THICKNESS GAGE (BASIC TYPE) PART NO. ISU-100D



ATTENTION: NOT SUITABLE FOR CASTINGS AND ALUMINUM WORKPIECES

- Measure the thickness from one side of objects, suitable for pipes, tanks, etc.
- Applicable material: steel, stainless steel, glass, copper, brass, polystyrene, titanium, etc.

SPECIFICATION (ON STEEL)

Measuring range	.031~11.811"	
Resolution	.01/.001"	
Accuracy	$\pm .002"$ (H<.394") $\pm (.002+H/1000)"$ (.394"≤H<3.937") $\pm H/333"$ (H≥3.937") H is the thickness to be measured in inch	
Transducer	frequency	5MHz
	diameter (d)	.43" DIA
Minimum size of pipes	.79×.05" (diameter × wall thickness)	
Velocity	.0394~.3937"/μs	
Operation temperature	main unit: -4~122°F transducer: -4~140°F	
Measuring unit	inch/mm	
Power supply	2×AAA batteries	
Dimension	4.49×2.52×1.1"	
Weight	.44lb	



STANDARD DELIVERY

Main unit	1 pc
Transducer	1 pc
Couplant	1 bottle
Battery (AAA)	2 pcs

ULTRASONIC THICKNESS GAGE PART NO. ISU-250C



DATA
OUTPUT

- Measure the thickness from one side of objects, suitable for pipes, tanks, etc.
- Applicable material: metal, plastic, glass, nylon, resin, ceramic, ice
- Tolerance measurement
- Average calculation of 9 readings
- Data can be input to Excel and Word as keyboard signal



SPECIFICATION (ON STEEL)

Measuring range	refer to specification of transducers
Resolution	.01/.001"
Accuracy	±.002" (H<.394") ±(.002+H/1000)" (.394"≤H<3.937") ±H/333" (H≥3.937") H is the thickness to be measured in inch
Velocity	.0394~.3937"/μs
Operation temperature of main unit	-4~122°F
Output	USB
Measuring unit	inch/mm
Power supply	2×1.5V AAA batteries
Dimension	4.57×2.52×1.06"
Weight	.49lb



STANDARD DELIVERY

Main unit	1 pc
Transducer ISU-T08	1 pc
Battery (AAA)	2 pcs
Couplant (for ISU-T04, ISU-T06, ISU-T08, ISU-T12)	1 bottle
USB cable	1 pc



transducer ISU-T13
(optional)



transducer ISU-T12
(optional)



transducer ISU-T04
(optional)



transducer ISU-T06
(optional)

OPTIONAL ACCESSORY

Transducer	ISU-T04, ISU-T06, ISU-T12, ISU-T13
Couplant (for ISU-T13)	ISU-HT5-COULPLANT

SPECIFICATION OF TRANSDUCERS (ON STEEL)

Part No.	Frequency	Diameter (d)	Measuring range	Minimum size of pipe for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T08 (included)	5.0MHz	.43" DIA	.031-11.811"	.98×.05"	-4~140°F	general use
ISU-T04 (optional)	10.0MHz	.24" DIA	.028-.787"	.59×.04"	-4~140°F	for small tubes
ISU-T06 (optional)	7.5MHz	.35" DIA	.028-1.969"	.59×.05"	-4~140°F	for thin workpieces
ISU-T12 (optional)	2.0MHz	.67" DIA	.079-15.748"	1.57×.12"	-4~140°F	for casting iron
ISU-T13 (optional)	5.0MHz	.59" DIA	.118-3.937"	.98×.08"	32~662°F	for high temperature

CONTACT/NON-CONTACT TACHOMETER PART NO. 9225-405

- 2 measuring method, contact and non-contact
- Can measure rotary speed and line speed
- Automatically save the maximum value, minimum value and the last value, 500 data can be stored during continuous measurement
- With backlight display
- Automatic power off



reflection sticker (included)



cone cavity head (included)



wheel with 0.1mm/3.937" perimeter (included)



cone head (included)



clamping sleeve (included)



small cone head (included)

SPECIFICATION

Measuring method		non-contact	contact
Measuring range	rotary speed	2.5~9999RPM	0.5~19999RPM
	line speed	—	0.05~500m/min
Resolution	rotary speed	0.1RPM (range 2.5~999.9RPM) 1RPM (range 1000~9999RPM)	0.1RPM (range 0.5~999.9RPM) 1RPM (range 1000~19999RPM)
	line speed	—	0.01m/min (range 0.05~99.99m/min) 0.1m/min (range 100~500m/min)
Accuracy	rotary speed	$\pm(0.05\%n+1d)$ RPM n is rotary speed, d is resolution	$\pm(0.4\%n+1d)$ RPM (n<300RPM) $\pm(0.05\%n+1d)$ RPM (n≥300RPM) n is rotary speed, d is resolution
	line speed	—	$\pm(1\%+1d)$ m/min d is resolution
Laser power		class III, 3mW~4mW	—
Sampling time		0.6s (above 100RPM)	
Measuring distance		2.0~19.7"	—
Operation temperature		32~104°F	
Power supply		3×AA batteries	
Dimension		8.1×2.8×1.42"	
Weight		.37lb	

STANDARD DELIVERY

Main unit	1 pc
Reflection sticker	3 pcs
Wheel with 0.1mm/.004" perimeter	1 pc
Clamping sleeve	1 pc
Cone head	1 pc
Small cone head	1 pc
Cone cavity head	1 pc
Battery (AA)	3 pcs

CONTACT TACHOMETER PART NO. 9224-213

- Can measure rotary speed, line speed and line length
- Automatically save the maximum value, minimum value and the last value, 96 data can be stored during continuous measurement
- With backlight display

SPECIFICATION

Measuring range	rotary speed	0.5~19999RPM
	line speed	0.05~500m/min
	line length	0.05~99999m
Resolution	rotary speed	0.1RPM (range 0.5~999.9RPM) 1RPM (range 1000~19999RPM)
	line speed	0.01m/min (range 0.05~99.99m/min) 0.1m/min (range 100~500m/min)
	line length	0.02m
Accuracy	rotary speed	$\pm(0.4\%n+1d)$ RPM (n<300RPM) $\pm(0.05\%n+1d)$ RPM (n≥300RPM) n is rotary speed, d is resolution
	line speed	$\pm(1\%+1d)$ m/min d is resolution
	line length	$\pm(1\%+1d)$ m d is resolution
Sampling time		0.8s (above 60RPM)
Operation temperature		32~104°F
Power supply		3×AA batteries
Dimension		6.7×2.8×1.38"
Weight		.36lb



cone head (included)



small cone head (included)



cone cavity head (included)



clamping sleeve (included)



wheel with 0.1mm/.004" perimeter (included)



STANDARD DELIVERY

Main unit	1 pc
Wheel with 0.1mm/.004" perimeter	1 pc
Clamping sleeve	1 pc
Cone head	1 pc
Small cone head	1 pc
Cone cavity head	1 pc
Battery (AA)	3 pcs

NON-CONTACT TACHOMETER PART NO. 9223-120



- Accurately measure the rotary speed without contact
- Automatically save the maximum value, minimum value and the last value, 500 data can be stored during continuous measurement
- With backlight display



reflection sticker (included)

SPECIFICATION

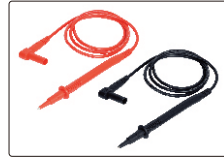
Measuring range	2.5~99999RPM
Resolution	0.1RPM (range 2.5~999.9RPM) 1RPM (range 1000~99999RPM)
Accuracy	$\pm(0.05\%n+1d)$ RPM n is rotary speed, d is resolution
Laser power	class III, 3mW~4mW
Sampling time	0.6 second (above 100RPM)
Measuring distance	2.0~19.7"
Operation temperature	32~104°F
Power supply	3×AA batteries
Dimension	7.1×2.8×1.18"
Weight	.32lb

STANDARD DELIVERY

Main unit	1 pc
Reflection sticker	3 pcs
Battery (AA)	3 pcs

DIGITAL MULTIMETER PART NO. 9216-F520

test leads (included)



temperature probe and adapter (included)



SPECIFICATION

Function	Range	Resolution	Accuracy ("d" is the least reading)
DC Voltage	200mV	.1mV	$\pm(.5\%+2d)$
	2V/20V/200V	.001V/.01V/.1V	$\pm(1.0\%+2d)$
	600V	1V	$\pm(1.2\%+2d)$
AC Voltage (50~60Hz)	200mV	.1mV	$\pm(1.5\%+30d)$
	2V	.001V	$\pm(1.2\%+3d)$
	20V/200V	.01V/.1V	$\pm(1.5\%+3d)$
	600V	1V	$\pm(2.0\%+4d)$
DC Current	200μA	.1μA	$\pm(1.0\%+3d)$
	2000μA/20mA/200mA	1μA/.01mA/.1mA	$\pm(1.5\%+3d)$
	10A	.01A	$\pm(2.5\%+5d)$
AC Current (50~60Hz)	200μA	.1μA	$\pm(1.5\%+5d)$
	2000μA/20mA/200mA	1μA/.01mA/.1mA	$\pm(1.8\%+5d)$
	10A	.01A	$\pm(3.0\%+7d)$
Resistance	200Ω	.1Ω	$\pm(1.2\%+4d)$
	2kΩ	.001kΩ	$\pm(1.0\%+2d)$
	20kΩ/200kΩ/2MΩ	.01kΩ/.1kΩ/.001MΩ	$\pm(1.2\%+2d)$
	20MΩ	.01MΩ	$\pm(2.0\%+3d)$
Temperature (Type-K)	-58°F to 1832°F	1°F	$\pm(3.0\%+8°F)$
	-50°C to 1000°C	1°C	$\pm(3.0\%+5°C)$
Diode test	test current .3mA typical	1mV	$\pm(10\%+5d)$
Continuity check	less than 100Ω		
Power supply	9V battery		
Dimension (LxWxH)	5.91×2.76×1.89"		
Weight	.56lb		

- 2000 counts digital display
- Auto ranging (except 200mV AC)
- Data hold
- Max hold
- Display with backlight
- Low battery indication
- Auto power off
- Safety rating: CAT III 600V

STANDARD DELIVERY

Main unit	1 pc
Thermocouple adapter	1 pc
Temperature probe	1 pc
9V battery	1 pc
Test lead	2 pcs

MINI DIGITAL MULTIMETER (BASIC TYPE) PART NO. 9242-ML100A

POPULAR
MODEL

- Portable size with protective case
- 2000 counts digital display
- 10A fuse protection
- Low battery indication
- Safety rating: CAT III 600V



test leads (included)



VIDEO

SPECIFICATION

Function	Range	Resolution	Accuracy ("d" is the least reading)
DC Voltage	200mV/2000mV/20V	.1mV/1mV/.01V	±(.5%+2d)
	200V/600V	.1V/1V	±(1.0%+2d)
AC Voltage (50/60Hz)	200V/600V	.1V/1V	±(1.2%+10d)
DC Current	2000μA/20mA	1μA/.01mA	±(1.0%+2d)
	200mA	.1mA	±(1.2%+2d)
	10A	.01A	±(2.0%+2d)
Resistance	200Ω/2000Ω/20kΩ/200kΩ	.1Ω/1Ω/.01kΩ/.1kΩ	±(.8%+2d)
	2000kΩ	1kΩ	±(1.0%+2d)
Battery test	9V	.01V	±(1.0%+2d)
	1.5V	.001V	±(1.0%+2d)
Diode test	open circuit voltage 2.8V DC		
Continuity check	<30Ω		
Power supply	1×9V 6F22 battery		
Dimension (LxWxH)	4.80×2.40×1.57"		
Weight	.33lb		

STANDARD DELIVERY

Main unit	1 pc
Test lead	2 pcs
9V battery	1 pc

DIGITAL MULTIMETER (WITH JACK INDICATOR LIGHT) PART NO. 9246-180

- Jack indicator light: jacks flash green to indicate the corresponding jacks for test leads
- NCV detection and judge the strength by light and buzzer
- Self-calibration when power on to ensure accuracy
- LIVE firewire recognition
- Double color backlight (orange backlight prompts high voltage or current: the orange backlight automatically lights up when voltage is higher than 80V or the current is higher than 1A)
- Large range capacitance meter 100mF
- True RMS measurement
- Battery test function, Max/Min mode, data hold
- Low battery indication, auto power off
- Safety rating: CAT III 1000V, CAT IV 600V



test leads (included)



VIDEO

SPECIFICATION

Function	Range	Resolution	Accuracy
DC Voltage	600mV/6V/60V/600V/1000V	.1mV/.001V/.01V/.1V/1V	±(0.5%+3)
AC Voltage	6V/60V/600V/750V	.001V/.01V/.1V/1V	±(0.8%+5)
DC Current	60μA/60mA/600mA/10A	.01μA/.01mA/.1mA/.01A	±(1.2%+3)
AC Current	60mA/600mA/10A	.01mA/.1mA/.01A	±(1.5%+3)
Resistance	600Ω/6kΩ/60kΩ/600kΩ	.1Ω/.001kΩ/.01kΩ/.1kΩ	±(1.0%+3)
	6MΩ/60MΩ	.001MΩ/.01MΩ	±(1.5%+3)
Capacitance	10nF/100nF/1000nF/10μF/100μF/1000μF	.001nF/.01nF/.1nF/.001μF/.01μF/.1μF	±(4.0%+5)
	10mF/100mF	.001mF/.01mF	±(5.0%+5)
Frequency	10Hz/100Hz/1000Hz/10kHz/100kHz/1000kHz	.001Hz/.01Hz/.1Hz/.001kHz/.01kHz/.1kHz	±(1.0%+3)
	10MHz	.001MHz	±(3.0%+3)
Duty cycle	1~99%	.1%	±(3.0%+3)
Diode measurement	forward DC current 2.5mA, reverse DC voltage 3.0V		
Continuity measurement	<30Ω		
Power	2x1.5V AA batteries		
Dimension (LxWxH)	7.4×3.46×1.97"		
Weight	.93lb		

STANDARD DELIVERY

Main unit	1 pc
Test lead	2 pcs
Battery (AA)	2 pcs

SMART DIGITAL MULTIMETER PART NO. 9247-190

- Automatically identify test mode for AC voltage/DC voltage/resistance/continuity
- NCV detection, and judge the strength by light and buzzer
- Self-calibration when power on to ensure accuracy
- LIVE firewire recognition
- Display with backlight, true RMS measurement, data hold
- Low battery indication, auto power off
- Safety rating: CAT III 600V



test leads (included)



VIDEO

SPECIFICATION

Function	Range	Resolution	Accuracy
DC Voltage	60mV/600mV/6V/60V/600V	.01mV/.1mV/.001V/.01V/.1V	±(0.5%+3)
AC Voltage	60mV/600mV/6V/60V/600V	.01mV/.1mV/.001V/.01V/.1V	±(1.0%+3)
DC Current	6000μA/60mA/600mA	1μA/.01mA/.1mA	±(1.2%+5)
AC Current	6000μA/60mA/600mA	1μA/.01mA/.1mA	±(1.5%+5)
Resistance	600Ω/6kΩ/60kΩ/600kΩ	.1Ω/.001kΩ/.01kΩ/.1kΩ	±(1.0%+5)
	6MΩ/60MΩ	.001MΩ/.01MΩ	±(1.5%+3)
Capacitance	6nF/60nF/600nF/6μF/60μF/600μF	.001nF/.01nF/.1nF/.001μF/.01μF/.1μF	±(4.0%+5)
	6mF/60mF	.001mF/.01mF	±(5.0%+5)
Frequency	10Hz/100Hz/1000Hz/10kHz/100kHz/1000kHz	.001Hz/.01Hz/.1Hz/.001kHz/.01kHz/.1kHz	±(1.0%+5)
	10MHz	.001MHz	±(3.0%+5)
Duty cycle	1~99%	.1%	±(3.0%+5)
Diode measurement	open circuit voltage 2.0V		
Continuity measurement	<50Ω		
Power	2×3V CR2032 batteries		
Dimension (LxWxH)	5.23×2.67×.7"		
Weight	.39lb		

STANDARD DELIVERY

Main unit	1 pc
Test lead	2 pcs
Battery (CR2032)	2 pcs

DIGITAL AC/DC CLAMP METER PART NO. 9315-CF210



test leads (included)



temperature probe and adapter (included)



SPECIFICATION

Function	Range	Resolution	Accuracy ("d" is the least reading)
AC Current (50/60Hz) *	40A	.01A	±(2.5%+8d)
	400A	.1A	±(2.8%+5d)
DC Current	40A	.01A	±(2.5%+5d)
	400A	.1A	±(2.8%+5d)
AC Voltage (50-400Hz) **	4V/40V/400V	.001V/.01V/.1V	±(1.5%+5d)
	600V	1V	±(2.0%+5d)
DC Voltage	400mV	.1mV	±(.8%+2d)
	4V/40V/400V	.001V/.01V/.1V	±(1.5%+2d)
	600V	1V	±(2.0%+2d)
Resistance	400Ω	.1Ω	±(1.0%+4d)
	4kΩ/40kΩ/400kΩ	.001kΩ/.01kΩ/.1kΩ	±(1.5%+2d)
	4MΩ	.001MΩ	±(2.5%+3d)
	40MΩ	.01MΩ	±(3.5%+5d)
Capacitance	40nF	.01nF	±(4.0%+20d)
	400nF/4μF/40μF	.1nF/.001μF/.01μF	±(3.0%+5d)
	400μF	.1μF	±(4.0%+10d)
	4mF	.001mF	±(5.0%+10d)
Frequency	10Hz/100Hz/1kHz/10kHz	.01Hz/.1Hz/.001kHz/.01kHz	±(1.2%+2d)
Duty cycle	.5% to 99.0%	.1%	±(1.2%+2d)
Temperature (Type-K)	-4°F to 1400°F	1°F	±(3.0%+9°F)
	-20°C to 760°C	1°C	±(3.0%+5°C)
Power supply	2x1.5V AAA batteries		
Dimension (LxWxH)	5.94×2.95×1.77"		
Weight	.56lb		

- 4000 counts LCD display
- 1.18" jaw opening
- True RMS measurement
- NCV detection
- REL (zero) function
- Data hold
- Low battery indication
- Auto power off
- Safety rating: CAT III 600V

STANDARD DELIVERY

Main unit	1 pc
Thermocouple adapter	1 pc
Temperature probe	1 pc
Battery (AAA)	2 pcs
Test lead	2 pcs

*All AC current/voltage ranges are specified from 5% to 100% of range.

** AC voltage bandwidth: 50 to 400Hz (sine); 50 to 60Hz (all waves).

AC PHASE AND VOLTAGE DETECTOR PART NO. 9723-400

- Non-contact detection of phase sequence, high and low voltage, wire distinction
- Low battery indication
- Auto power off
- Flashlight



SPECIFICATION

Phase sequence detection	screen display clockwise or counterclockwise
High and low voltage detection	beep: slow~fast backlight: green~red analog bar: low~high
Wire distinction	green backlight indicates neutral wire red backlight indicates live wire
Power supply	2×1.5V AAA batteries
Dimension	6.2×1.1×0.9"
Weight	.07lb

DIGITAL VOLTAGE TESTER PART NO. 9721-250

- Direct AC test (contact): 12-250V
two way display: voltage displays on LCD screen and neon lamp lights up (when voltage > 80V)
- Induction AC test (non-contact): 12-250V to detect power source or recognize the phase line, ground line and break point
- Direct DC test (contact): 6-36V instant sense and display
- Work without battery
- Tester tip: CRV material



SPECIFICATION

Range	AC: 12-250V; DC: 6-36V
Neon lamp life	30000 times
Dimension	5.2×.8×.7"
Weight	.05lb

VOLTAGE TESTER PART NO. 9722-250

- Tester tip: CRV material



SPECIFICATION

Range	AC: 100-250V
Neon lamp life	30000 times
Dimension	5.7×.6" DIA
Weight	.05lb

LASER DISTANCE METERS

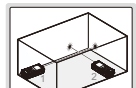
- Large display with backlight
- Unit: m, ft, in, ft-in
- Distance, area, volume and height measurement
- Continuous measuring mode to track maximum and minimum value
- Memory of 30 measurement values
- Automatic power off: laser 30s, main unit 180s



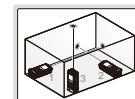
9561-50B



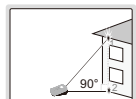
distance measurement



area measurement



volume measurement



height measurement

SPECIFICATION

Part No.	9561-50B	9561-70B
Measuring range	.2~164ft	.2~229ft
Resolution	0.001m, .001ft, 1/32"	
Accuracy	±(.08+D/916)" D: measured distance, unit: ft	
Laser type	630~670nm, class II, <1mW	
Power supply	2×AAA batteries	
Dimension (L×W×H)	4.5×2.0×1.1"	
Weight	.21lb	

STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	2 pcs

PORTABLE CONDUCTIVITY/TDS METER PART NO. 0411-0200



**IP65
WATERPROOF**

- Reading mode: auto-read and continuous-read
- Automatic/manual temperature compensation
- Auto-hold feature senses and locks the measurement endpoint
- Cell constant is settable
- 1 point calibration with standard recognition
- Data capacity up to 200 sets for each parameter
- IP65 dust/waterproof
- Auto power off

SPECIFICATION

Conductivity	range	0.00 μ S/cm~200mS/cm
	resolution	0.01 μ S/cm minimum
	electronic unit accuracy	\pm 1.0%FS
	measurement accuracy	\pm 1.5%FS
	reference temperature	77°F/25°C
	calibration point	1
	standard recognition	84 μ S/cm, 1413 μ S/cm, 12.88mS/cm
TDS	range	0.00mg/L~300g/L
	resolution	0.01mg/L minimum
	accuracy	\pm 1.0%FS
Temperature	range	23~230°F/-5~110°C
	accuracy	\pm 7°F/ \pm 4°C
Input		electrode with 5-pin aviation connector
Power supply		rechargeable battery
Dimension		3.1×8.9×1.4"
Weight		.88lb



STANDARD DELIVERY

Main unit	1 pc
Electrode	1 pc
Electrode holder	2 pcs
Wristband	1 pc
Silicone rubber case	1 pc
AC/DC adapter and charging cable	1 pc
Standard solution	1 bottle

PORTABLE pH METER PART NO. 0431-0018



**IP65
WATERPROOF**

- Reading mode: auto-read and continuous-read
- Automatic/manual temperature compensation
- Auto-hold feature senses and locks the measurement endpoint
- 1 or 2 points calibration with standard recognition
- Data capacity up to 200 sets for each parameter
- IP65 dust/waterproof
- Auto power off

SPECIFICATION

pH	range	-2.00~18.00pH
	resolution	0.01pH
	electronic unit accuracy	\pm 0.01pH
	measurement accuracy	\pm 0.02pH
	calibration point	1 or 2
	standard recognition	NIST pH buffers: 4.01, 7.00, 10.01
Voltage	range	-1999~1999mV
	resolution	1mV
	accuracy	\pm 0.1%FS
Temperature	range	23~230°F/-5~110°C
	accuracy	\pm 7°F/ \pm 4°C
Inputs		pH electrode: BNC (Q9) temp. probe: 4-pin aviation connector
Power supply		rechargeable battery
Dimension		3.1×8.9×1.4"
Weight		.88lb



STANDARD DELIVERY

Main unit	1 pc
Electrode	1 pc
Electrode holder	2 pcs
Wristband	1 pc
Silicone rubber case	1 pc
AC/DC adapter and charging cable	1 pc
Standard solution	3 bottles
KCl powder	1 bottle

DIGITAL REFRACTOMETER PART NO. ISQ-DRM31

SUITABLE FOR WATER
BASED COOLANT



- Quickly measure the concentration of coolant, sugar solution, juice and drinks
- Two measurement modes: single measurement and automatic average multiple measurement
- Two units: brix and refractive index
- Refer to the refraction factor of coolant, for example: the refraction factor of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is $(2.1 \times 6\%) = 12.6\%$
- Automatic power off

STANDARD DELIVERY

Main unit	1 pc
Dropper	1 pc
Battery (AAA)	1 pc



SPECIFICATION

Measuring range	0~50% (1.3330~1.4200RI)
Accuracy	$\pm 0.2\%$ ($\pm 0.0003RI$)
Resolution	0.1% (0.0001RI)
Power supply	1×AAA battery
Dimension	4.76×2.28×.98"
Weight	.2lb

dropper (included)



MINI DIGITAL REFRACTOMETER PART NO. 5801-A55

SUITABLE FOR WATER
BASED COOLANT



- Quickly measure the concentration of coolant
- Automatic temperature compensation
- Brix and refractive index can be displayed
- Refer to the refraction coefficient of coolant, for example: the refraction coefficient of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is $(2.1 \times 6\%) = 12.6\%$
- Automatic power off

STANDARD DELIVERY

Main unit	1 pc
Dropper	1 pc

dropper (included)



SPECIFICATION

Measuring range	0~50% (1.3330~1.4200RI)
Accuracy	$\pm 0.2\%$ ($\pm 0.0003RI$)
Resolution	0.1% (0.0001RI)
Power supply	built-in 3.7V rechargeable lithium battery
Dimension	5.79×1.81×1.06"
Weight	.25lb (including battery)

PORTABLE REFRACTOMETER PART NO. ISQ-RM30

SUITABLE FOR WATER
BASED COOLANT



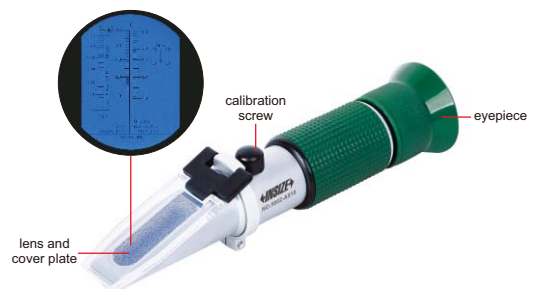
- Quickly measure the concentration of coolant
- Refer to the refraction factor of coolant, for example: the refraction factor of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is $(2.1 \times 6\%) = 12.6\%$

SPECIFICATION

Measuring range	0~32%
Graduation	0.2%
Dimension	1.06×1.57×6.3"
Weight	.39lb



PORTABLE REFRACTOMETER FOR AUTOMOTIVE LIQUID PART NO. 5802-A510

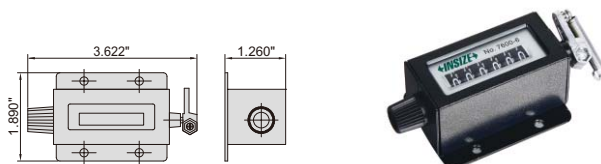


- Measure the freezing point of the antifreeze and the concentration of urea in diesel exhaust fluid
- Measure the specific gravity of battery fluid

SPECIFICATION

Measuring object	ethylene glycol	propylene glycol	urea	battery fluid
Measuring range	-50~0°C	-50~0°C	30~35%	1.10~1.40kg/l
Accuracy	$\pm 5^\circ C$	$\pm 5^\circ C$	$\pm 1\%$	$\pm 0.02kg/l$
Resolution	1°C	1°C	1%	0.01kg/l
Dimension	1.06x1.57x6.30"			
Weight	.38lb			

STROKE COUNTER



- Accumulate and record the number of mechanical movements
- Rotate back to zero

SPECIFICATION

Part No.	Number of digits	Range
7600-6	6	0-999999

DIGITAL STOPWATCH PART NO. DSW-A010

- Split time, total time and continuous time can be displayed
- 10 groups of results can be read out from memory after resetting
- Scroll back and forth to read out the memory digits
- The fastest, slowest and average time can be displayed
- Able to record the split times (00-199)



STANDARD DELIVERY

Main unit	1 pc
String	1 pc

SPECIFICATION

Measuring range	0~9 hours, 59 minutes, 59.99 seconds		
Resolution	0.01s		
Accuracy	±0.5s		
Function	memory	10 groups	
	timer	up to 10 hours	
	time	12-hour or 24-hour time display, alarm can be set	
Power supply	LR44 battery		
Screen dimension	1.32×.54"		
Dimension	2.99×2.48×.63" (metal case)		

INDUCTIVE MOISTURE METER PART NO. 0120-IM24

- Suitable for wood, gypsum and cement
- MAX/MIN/HOLD mode
- Alarm function
- Low battery indication
- Auto power off



STANDARD DELIVERY

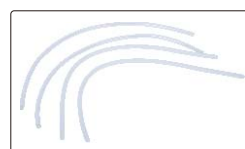
Main unit	1 pc
Battery (AAA)	1 pc

SPECIFICATION

Measuring range	0~100%
Resolution	1%
Accuracy	±4%
Detection depth	.79~1.57"
Sampling time	0.5s
Battery	9V
Dimension	7.28×2.17×1.50"
Weight	.43lb

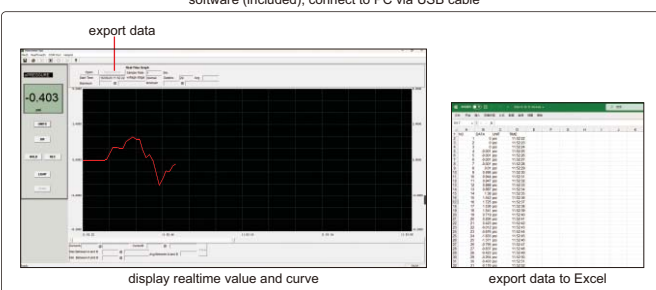
DIFFERENTIAL PRESSURE MANOMETER PART NO. 0140-DP05

- Offset and differential measurement
- Record maximum/minimum/average value with relative timestamp
- Built-in USB interface for data transmission
- Unit: psi, inH₂O, bar, mbar, kPa, inHg, mmHg, oz/in², ftH₂O, cmH₂O, kg/cm²
- Zero adjust
- Data hold
- Display with backlight
- Low battery indication
- Automatic power off
- Safety rating: CAT III 600V



soft tubes (included)

software (included), connect to PC via USB cable



STANDARD DELIVERY

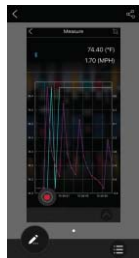
Main unit	1 pc
AC/DC adapter	1 pc
9V battery	1 pc
Software flash disk	1 pc
USB cable	1 pc
Soft tubes	4 pcs

SPECIFICATION

Pressure range	-5~5psi											
Maximum pressure	20psi											
Unit	psi	inH ₂ O	bar	mbar	kPa	inHg	mmHg	oz/in ²	ftH ₂ O	cmH ₂ O	kg/cm ²	
Range	5	138.3	0.344	344.7	34.47	10.18	258.5	80	11.53	351.5	0.351	
Resolution	0.001	0.1	0.001	0.1	0.01	0.01	0.1	0.01	0.01	0.1	0.001	
Accuracy	±0.3%FSO (77°F)											
Repeatability	±0.2% (Max. ±0.5%FSO)											
Linearity/hysteresis	±0.29%FSO											
Response time	0.5s typical											
Operation temperature	32°F~122°F											
Power supply	1×9V 6F22 battery or AC/DC adapter											
Dimension (LxWxH)	6.50×3.54×1.57"											
Weight	.77lb											

ANEMOMETER PART NO. 0110-1125

App measurement



App record



- Measure air velocity and temperature
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off
- Supplied with APP for Apple and Android

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

SPECIFICATION

	Unit	Measuring range	Resolution	Accuracy
Air velocity	MPH	2.5~56.0	0.1	±(3%+0.4)
	knots	2.2~48.0	0.1	
	m/s	1.1~25.0	0.01	
	km/h	4~90	0.1	
	ft/min	220~4920	1	
Air temperature	°F	32~122	0.1	±4
	°C	0~50	0.1	±2
Sensors	air velocity sensor, NTC-type precision thermistor			
Sampling time	0.5s			
Operation altitude	max 7000ft			
Operation environment	32~122°F, 0~80%RH			
Storage environment	14~140°F, 0~80%RH			
Auto power off	10 minutes			
Data port	Bluetooth 4.0			
Power supply	9V			
Dimension	8.39×2.13×1.42"			
Weight	.38lb			

SOUND LEVEL METER (BASIC TYPE) PART NO. 0010-A35



App measurement



App record



- Auto range selection
- Over range indication
- Display backlight
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off
- Supplied with APP for Apple and Android

SPECIFICATION

Frequency	31.5Hz~8KHz
Measuring range	35dB~130dB
Accuracy	±3.0dB (ref 94dB@1kHz)
Resolution	0.1dB
Frequency weighting	A and C
Display update	2 times/sec
Microphone	1/2 inch electret condenser microphone
Power supply	9V battery
Operation temperature	32°F~104°F/0°C~40°C
Humidity	10%RH~90%RH
Dimensions	7.28×2.13×1.42"
Weight	.41lb

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc
Windscreen	1 pc

DIGITAL SOUND LEVEL METER (ADVANCED TYPE) PART NO. 9353-413



- Automatic range conversion
- Over range indicator
- Maximum mode
- Data hold
- AC signal output: 0.707Vrms, impedance approx.100Ω
- DC signal output: 20mV/dB, impedance approx.1kΩ

SPECIFICATION

Measuring range	40dB~130dB (ref.20μPa)
Frequency	20Hz~12.5kHz
Resolution	0.1dB
Accuracy	IEC 61672-1:2013 class 2
Frequency weighting	a weighting
Response time	fast (125ms), slow (1s)
Microphone	pre polarized condenser microphone
Reference direction	axial direction of condenser microphone
Power supply	4×1.5V AAA batteries
Dimension	8.27×2.68×1.06"
Weight	.53lb

STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	4 pcs
Screwdriver	1 pc

LIGHT METER PART NO. 0131-A120

SPECIFICATION

Measuring range	FC	0.01~19.99	0.1~199.9	1~1999	10~19990
Resolution	FC	0.01	0.1	1	10
Measuring range	Lux	0.1~199.9	1~1999	10~19990	100~199900
Resolution	Lux	0.1	1	10	100
Accuracy	±(4%+10d), range<2000FC/20000Lux ±(5%+10d), range≥2000FC/20000Lux (d is resolution, calibrated with standard incandescent lamp at color temperature 2856K)				
Repeatability	±2%				
Sampling time	0.5s				
Operation environment	32~104°F, 0~70%RH				
Storage environment	14~122°F, 0~80%RH				
Battery	9V				
Dimension	7.28×2.68×1.50"				
Weight	.29lb				

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc



- Photosensor can rotate 90° clockwise and rotate 180° counterclockwise
- Built-in calibration filters ensure the accuracy when working in different colors
- Data hold function
- FC/Lux unit switch
- Low battery alarm

LIGHT METER (BASIC TYPE) PART NO. 0130-L110

SPECIFICATION

Measuring range	Lux	1~1999	10~19999	100~100000
Resolution	Lux	1	10	100
Accuracy	±(4%+10d), range<10000Lux ±(5%+10d), range≥10000Lux (d is resolution, calibrated with standard incandescent lamp at color temperature 2856K)			
Repeatability	±2%			
Sampling time	0.5s			
Operation environment	32~104°F, 0~70%RH			
Storage environment	14~122°F, 0~80%RH			
Battery	9V			
Photodetector dimension	4.13×2.28×1.10"			
Main unit dimension	5.12×2.83×1.18"			
Weight	.37lb			



- Suitable for measuring illuminance in various occasions
- Data hold function
- Fast switching of measuring range, easy to operate

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

UV LIGHT METER PART NO. 0132-UV199

- Self-recognize probes
- Real-time value, maximum value, minimum value, average value, time, energy value are displayed at the same time

MAIN UNIT SPECIFICATION

Display	240×160 LCD
Power supply	4 AAA alkaline batteries
Dimension	5.83×2.99×1.02"
Weight	.43lb



To be continued

Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
Probe 0132-UVA1	1 pc
Battery	4 pcs

PROBE SPECIFICATION

Probe part no.	0132-UVA1 (included)	0132-UVC0 (optional)	0132-UVCWP1 (optional)
Application	general purpose low power UVA intensity and energy measurement	intensity and energy measurement of 254nm UV sterilization mercury lamp	intensity and energy measurement of 254nm UV sterilization mercury lamp
Spectral response	$\lambda_p=365\text{nm}$ 315nm-400nm	$\lambda_p=254\text{nm}$ 230nm-280nm	$\lambda_p=254\text{nm}$ 230nm-280nm
Power measuring range	0~200000 $\mu\text{W}/\text{cm}^2$		
Resolution	0.1 $\mu\text{W}/\text{cm}^2$		
Energy measuring range	0-9999999 $\mu\text{J}/\text{cm}^2$		
Measuring accuracy	$\pm 10\%$		
Record time	0-99999s		
Sampling speed	6 times/second		
Measuring unit	$\mu\text{W}/\text{cm}^2$ (default), mW/cm^2 , W/m^2		
Test hole diameter	.39" DIA		
Probe size	1.54×1.26×.59"	1.54" DIA×.59"	1.97" DIA×.79"
Waterproof depth	—	—	39.37"

PROBE SPECIFICATION

Probe part no.	0132-UVCLED0 (optional)	0132-UVB0 (optional)	0132-UVA0 (optional)
Application	measurement of 260nm-285nm UV LED sterilization lamp	general purpose UVB intensity and energy measurement	Intensity and energy measurement of light source of high pressure mercury lamp in UV curing industry
Spectral response	280nm-315nm*	$\lambda_p=310\text{nm}^{**}$ 280nm-315nm	$\lambda_p=365\text{nm}$ 315nm-400nm
Power measuring range	0~200000 $\mu\text{W}/\text{cm}^2$		0~2000 mW/cm^2
Resolution	0.1 $\mu\text{W}/\text{cm}^2$		0.1 mW/cm^2
Energy measuring range	0-9999999 $\mu\text{J}/\text{cm}^2$		
Measuring accuracy	$\pm 10\%$		
Record time	0-99999s		
Sampling speed	6 times/second		2048 times/second
Measuring unit	$\mu\text{W}/\text{cm}^2$ (default), mW/cm^2 , W/m^2		mW/cm^2 (default), W/m^2
Test hole diameter	.39" DIA		
Probe size	1.54" DIA×.59"	1.54" DIA×.59"	1.54×1.26×.59"

*Wide spectral range, avoid using in strong light

**Suitable for measuring UVB light source with wavelength 297nm, 308nm, and 313nm

PROBE SPECIFICATION

Probe part no.	0132-UVALED0 (optional)	0132-UVALED1 (optional)	0132-UVALED3 (optional)
Application	intensity and energy measurement of area light source of UV LED in UV curing industry	intensity and energy measurement of point light source of UV LED in UV curing industry	general purpose UVA+UVV LED intensity and energy measurement, low power measuring range
Spectral response	calibrated with 395nm UV LED 340nm-420nm		
Power measuring range	0~20000 mW/cm^2		0~200000 $\mu\text{W}/\text{cm}^2$
Resolution	1 mW/cm^2		0.1 $\mu\text{W}/\text{cm}^2$
Energy measuring range	0-9999999 $\mu\text{J}/\text{cm}^2$		
Measuring accuracy	$\pm 10\%$		
Record time	0-99999s		
Sampling speed	2048 times/second		6 times/second
Measuring unit	mW/cm^2 (default), W/cm^2 , W/m^2		$\mu\text{W}/\text{cm}^2$ (default), mW/cm^2 , W/m^2
Test hole diameter	.39" DIA	.04" DIA	.39" DIA
Probe size	1.54×1.26×.59"		

SINGLE GAS DETECTORS

IP65
WATERPROOF

- Detect combustible gas (EX, including CH₄, C₃H₈, H₂, etc), O₂, CO or H₂S, support more than 30 types of gas sensors, customization for detecting toxic gases (such as NO, NH₃, PH₃, etc) available
- Adjustable alarm level, alarm mode: sound, light, vibration
- Adjustable calibration level
- Sampling method: natural diffusion
- High concentration protection for sensor
- Up to 500 alarm records storage capacity
- Self-test on startup
- Display with backlight
- Language: English, Chinese
- Low battery indication
- Explosion proof level: Ex ib IIB T3 Gb



calibration cap (included)



0611-SG01

SPECIFICATION

Part No.	0611-SG01	0611-SG02	0611-SG03	0611-SG04
Gas	combustible gas/EX	O ₂	CO	H ₂ S
Range	0-100%LEL	0-30%vol	0-1000ppm	0-100ppm
Resolution	1%LEL	.1%vol	1ppm	1ppm
Accuracy	±5%FS			
Response time	T ₉₀ <60s			
Operation environment	temperature: 14°F~131°F; humidity: <95%RH, no condensation			
Sensor lifetime	2 years (depending on working environment)			
Power supply	3.7V rechargeable Li-ion battery, working time>8h			
Dimension (LxWxH)	4.88×2.36×1.81"			
Weight	.45lb			

STANDARD DELIVERY

Main unit	1 pc
Calibration cap	1 pc
AC/DC adapter and charging cable	1 pc

MULTI GAS DETECTOR PART NO. 0612-MG04

DATA
OUTPUT

IP66
WATERPROOF



software flash disk
(included)



charging cable
(included)



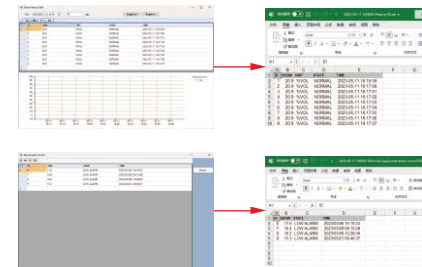
calibration cap
(included)



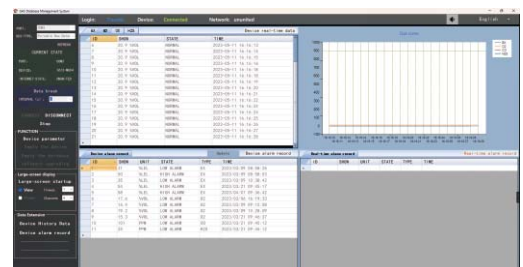
charging and data transmission
interface on the back

- Detect combustible gas (EX, including CH₄, C₃H₈, H₂, etc), oxygen (O₂), carbon monoxide (CO) and hydrogen sulfide (H₂S), optional configuration includes other toxic gases such as NO, NH₃, PH₃, etc; support more than 30 types of gas sensors, flexible sensor combination and customization available
- Adjustable alarm level, alarm mode: sound, light, vibration and screen display
- Adjustable calibration level
- Sampling method: natural diffusion
- High concentration protection for sensor
- Data transmission via charging interface
- Up to 1000 alarm records storage capacity
- Self-test on startup
- Display with backlight
- Language: English, Chinese and Spanish (Portuguese and Russian customizable)
- Low battery indication
- Explosion proof level: Ex ib IIC T4 Gb

software (included), connect to PC via USB cable, display test data and export record



export history data and alarm record



display real-time data and alarm record

STANDARD DELIVERY

Main unit	1 pc
Calibration cap	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

SPECIFICATION

Gas	combustible gas (EX)	O ₂	CO	H ₂ S
Range	0-100%LEL	0-30%vol	0-1000ppm	0-100ppm
Resolution	1%LEL	0.1%vol	1ppm	1ppm
Accuracy	±5%FS			
Response time	T ₉₀ <60s			
Operation environment	temperature: 14°F~122°F; humidity: <95%RH, no condensation			
Sensor lifetime	2 years (depending on working environment)			
Power supply	3.7V rechargeable Li-ion battery, working time>8h			
Dimension (LxWxH)	5.91×2.83×1.89"			
Weight	.68lb			

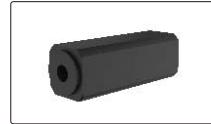
TESLAMETERS (GAUSSMETERS)

DATA
OUTPUT

- Measure magnetic induction of DC magnetic field
- Directly display the N/S polarity of the measured magnetic field
- One-key zero function: eliminate the influence of zero drift before measurement
- Maximum value hold: record the maximum value of the changing magnetic field
- Unit switch between mT or G (1mT=10G)
- Auto ranging
- Built-in USB interface for data transmission
- Display with backlight
- Auto power off



axial probe (optional)



magnetic shielding cavity (optional)



0501-MA01

radial probe (included)

SPECIFICATION

Part No.	0501-MA01	0501-MA05
Range	2000mT	
Resolution	.01mT (0~200mT)	.1mT (200~2000mT)
Accuracy	±1.0%	±2.0% (≤1000mT) ±5.0% (1000mT~2000mT)
Temperature coefficient	±.1%/K	
Zero drift	±.5mT/h	
Interface	USB	
Power supply	3x1.5V AA batteries or USB	
Dimension (LxWxH)	6.50×3.54×1.57"	
Weight	.77lb	

STANDARD DELIVERY

Main unit	1 pc
Radial probe	1 pc
Battery (AA)	3 pcs

OPTIONAL ACCESSORY

Axial probe	0501-PA
Magnetic shielding cavity	0501-SHIELD

LASER BELT TENSION METER PART NO. 5900-HZ18

- Laser sensor, direct measurement, easy to use
- Two sensors: internal and external, external sensor is suitable for measurement in narrow spaces
- Automatic power off

SPECIFICATION

Measuring range	10~800Hz	
Input parameter range	maximum free belt length: 999.9" maximum belt weight: 9.999lb/ft	
Accuracy	±5%	
Unit	lbf, N	
Measuring distance	.12~.79"	
Operation temperature	50~122°F	
Power supply	4×1.5V AAA batteries	
Dimension	main unit	7.01×2.83×1.34"
	external sensor	4.88×.83×.47"
Weight	.40lb	



external sensor

internal sensor

STANDARD DELIVERY

Main unit	1 pc
External sensor	1 pc

INFRARED THERMAL IMAGING CAMERA (BASIC TYPE) PART NO. 9132-T400

NON-CONTACT
TEMPERATURE MEASUREMENT

IP54
WATERPROOF

DATA
OUTPUT



front view



VIDEO

- IR/visible/laser indicator
- Trigger button for photo taking
- 6.6ft drop test, IP54 protection

STANDARD DELIVERY

Main unit	1 pc
Power supply adapter	1 pc
Type-C cable	1 pc
16G TF card	1 pc

SPECIFICATION

IR image	IR resolution	120×90@.0007"
	detector type	VOx/.0003"~.0006"
	frame rate	25Hz/9Hz
	thermal sensitivity/NETD	60mk
	focal length	.09"/F1.13
	field of view (FOV)	50°×38°
	spatial resolution (IFOV)	7.6mrad
Visible camera	focus	focus-free
	visible camera resolution	320×240, focus-free
Image display	flashlight	yes
	display	2.4" IPS technology TFT display
	display resolution	320×240
	image model	IR/visible/picture-in-picture
Temperature measurement	color palettes	6: white hot, iron red, hot iron, arctic, rainbow 1, rainbow 2
	temperature range	-4~302°F, 212~752°F (auto switching)
	accuracy	±3.6°F or ±3%, whichever is greater (target temp ≥32°F, ambient temp is 59~86°F)
	measurement spot	center spot
	measurement area	3 (incl. max & min temp)
	auto max & min spot tracking	yes
	alarm	full screen max & min spot alarm
Image storage	storage media	TF card (16G)
	IR image format	full radiometric (JPG) (120 x 90)
	visible image	yes, 320x240
Connections & communications	USB	type-C, TF card slot
	tripod interface	yes
	mobile APP	yes
	PC IR analysis software	yes
Power system	battery type	rechargeable li ion battery
	battery operation time	>5 hours
	charging time	internal charge, ≤2.5 hours
Environmental parameters	operation temperature	14~122°F
	storage temperature	-40~158°F
	protection	IP54, 6.6ft drop test
	certification	CE/ROHS/FCC
	dimension (LxWxH)	7.64×2.42×2.99"
	weight	.77lb

INFRARED THERMOMETER (BASIC TYPE) PART NO. 0210-G260



- MAX/MIN temperature display
- °F/°C conversion function
- Auto data hold and auto power off

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

SPECIFICATION

Measuring range	-22 °F~500°F/-30°C~260°C
Accuracy	±7°F/±4°C (≤32°F) ±2% or ±4°F/±2°C (>32°F)
Resolution	0.1°F/0.1°C
Distance to spot size (D:S)	8:1
Emissivity	0.95 (fixed)
Diode laser	output<1mW, wavelength 24.80~26.38µm class 2 (II) laser product
Spectral response	236.22~551.18µm
Response time	less than 1s
Power supply	9V battery
Dimension	3.23×1.65×6.30"
Weight	.4lb

INFRARED THERMOMETER (STANDARD TYPE) PART NO. 0213-A500



- Unit: °F, °C
- Dual laser sighting
- Negativity display
- Automatic power off
- Automatic data hold
- Over range indicator
- Max/Min display

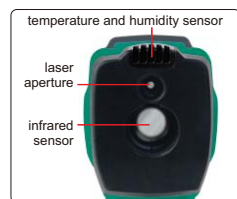
STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

SPECIFICATION

Temperature range	-4°F~716°F/-20°C~380°C
Temperature accuracy	±4.5°F (at -4°F~68°F), ±2% or ±3.6°F (at 68°F~716°F) ±2.5°C (at -20°C~20°C), ±2% or ±2.0°C (at 20°C~380°C)
Temperature resolution	.1°F/.1°C
Distance to spot size (D:S)	12:1
Emissivity	.95 (fixed)
Repeatability	±1.8°F/±1.0°C
Response time	150ms
Spectral response	8~14μm
Diode laser	output<1mW, wavelength 630~670nm, class 2 laser product
Operation temperature	32°F~122°F/0°C~50°C
Operation humidity	10%RH~90%RH
Storage temperature	14°F~140°F/10°C~60°C
Storage humidity	<80%RH
Power supply	1×9V battery
Dimension	5.39×2.87×1.50"
Weight	.30lb

INFRARED THERMOMETER (ADVANCED TYPE) PART NO. 0215-A900



- Ambient temperature, dew point temperature and humidity detection
- Unit: °F, °C
- Circular laser sighting
- Display backlight
- Automatic power off
- Automatic data hold
- Adjustable emissivity
- High and low alarm

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

SPECIFICATION

Infrared sensor	temperature range	-22°F~1472°F/-30°C~800°C
	temperature resolution	0.1°F (-22°F~1000°F), other range 1°F 0.1°C
	temperature accuracy	±5.4°F (at -22°F~68°F) ±(1% of reading+1.8)°F (at 68°F~842°F) ±(2% of reading)°F (at 842°F~1472°F)
	distance to spot size (D:S)	20:1
	emissivity	adjustable 0.10~1.00
	response time	<150ms
	spectral response	8~14μm
Temperature and humidity sensor	diode laser	output<1mW, wavelength 630~670nm class 2 laser product
	air temperature range	32°F~122°F/0°C~50°C
	dew point temperature range	32°F~122°F/0°C~50°C
	temperature resolution	0.1°F/0.1°C
	temperature accuracy	±1.8°F/±1.0°C
Automatic power off	humidity range	0%RH~100%RH
	humidity resolution	±5%RH (20%RH~80%RH), other range ±7%RH
Automatic power off	about in 10 seconds	
Power supply	1×9V battery	
Dimension (H×W×D)	6.69×1.77×3.35"	
Weight	.43lb	

DIGITAL THERMOHYGROMETER (PROFESSIONAL TYPE) PART NO. 9362-TH27

IP50
DUSTPROOF

- Measure humidity, ambient temperature and dew-point temperature
- Max/Min/Average mode
- Alarm function
- IP50 protection grade



STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	1 pc

SPECIFICATION

Sensor	NTC thermistor/humidity capacitance/digital sensor
Temperature range	-4°F~158°F/-20°C~70°C
Temperature accuracy	±0.9°F/±0.5°C
Temperature resolution	0.2°F (minimum adjustable unit is 0.2°F in setting mode)/0.1°C
Humidity range	0~100%RH
Humidity accuracy	±5%RH
Humidity resolution	0.1%RH
Sampling interval	5s
Battery	1.5V AAA
Dimensions	3.74×4.12×0.71"
Weight	.23lb

DATA LOGGER FOR TEMPERATURE AND HUMIDITY (BUILT-IN SENSOR) PART NO. 0311-3070

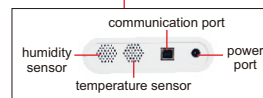
IP54
WATERPROOF

DATA
OUTPUT

- Signal acquisition, display, storage, analysis function
- Low power consumption
- Built-in high-precision temperature and humidity sensor
- Software is included

SPECIFICATION

Temperature range	-22°F~158°F/-30°C~70°C
Temperature accuracy	±.6°F (at 73.4°F±3.6°F), other range ±.9°F ±.3°C (at 23°C±2°C), other range ±.5°C
Temperature resolution	.2°F/.1°C
Humidity range	0%RH~100%RH
Humidity accuracy	±3%RH (at 10%RH~85%RH), other range ±5%RH
Humidity resolution	.1%RH
Memory capacity	10918
Alarm	function: alarm when over high or low limit method: display+buzz+backlight
Sampling interval	2s, 5s, 10s, 30s, 60s, 255s (adjustable)
Logging interval	2 seconds~24 hours (adjustable)
Start with delay	1~120 seconds (adjustable)
Start mode	start immediately/delay start/timing start
End mode	full/FIFO/preset/timing end
Timing start/end	random start/end with format YYMMDD HHMMSS
Interface	USB
Time battery	CR2032
Power supply	3.6V lithium battery (ER14505) or 5~24V DC
Dimensions	4.84×4.61×1.30"
Weight	.57lb



VIDEO



stand (included)

software (included), record and download data to PC software via USB cable



STANDARD DELIVERY

Main unit	1 pc
Software and USB cable	1 pc
Power adapter	1 pc
Time battery	1 pc
Lithium battery	1 pc

THERMOHYGROMETER (EXTERNAL SENSOR) PART NO. 0313-TH48

SPECIFICATION

Temperature range	-40°F~176°F/-40°C~80°C
Temperature accuracy	±2°F (at -20°F~176°F), ±3°F (at -40°F~-20°F) ±.5°C (at -20°C~60°C), ±1.0°C (at 60°C~80°C), ±2°C (at -40°C~-20°C)
Temperature resolution	.1°F (at -20°F~100°F), other range 1°F .1°C (at -20°C~80°C), other range 1°C
Humidity range	0%RH~99.9%RH
Humidity accuracy	±5%RH (at 50°F~140°F), other range ±7%RH ±5%RH (at 10°C~60°C), other range ±7%RH
Humidity resolution	.1%RH
Sensitivity attenuation value	temperature: < 2°F/year (< .1°C/year) humidity: < 1%RH/year
Sampling interval	5s
Power supply	built-in rechargeable lithium battery (USB 5V charging) working time at least one month
Dimension	3.46×3.46×.83"
Weight	.38lb



- External sensor, 118.1" cable
- Time/temperature/humidity display
- Temperature and humidity upper and lower limit alarm function
- Unit: °F/°C
- Low battery alarm

STANDARD DELIVERY

Main unit	1 pc
USB charging cable	1 pc

K-TYPE THERMOCOUPLE THERMOMETER (ECONOMIC TYPE) PART NO. 0320-K230

- Contact K-type thermocouple
- Unit: °F/°C
- Data hold function
- Low battery display
- Display backlight

SPECIFICATION

Temperature range	-58°F~392°F/-50°C~200°C
Temperature accuracy	±3.6°F/±2.0°C
Temperature resolution	.1°F (at -58°F~199.9°F), 1°F (at -58°F~392°F) .1°C (at -50°C~199.9°C), 1°C (at -50°C~200°C)
Sampling rate	2.5 times/sec
Power supply	3×3V CR2450 batteries (for 300 hours working)
Operation voltage	6.8V~10V
Dimension	5.87×2.99×1.34"
Weight	.49lb

STANDARD DELIVERY

Main unit	1 pc
Thermocouple (K-type)	1 pc
CR2450 battery	3 pc



THERMOHYGROMETER PART NO. 0310-H26



- Measure humidity, ambient temperature, dew point temperature and wet bulb temperature
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off
- Supplied with APP for Apple and Android

SPECIFICATION

Function	Measuring range	Resolution	Accuracy
Ambient temperature	32°F~122°F 0°C~50°C	0.1°F/0.1°C	±1.8°F/±1.0°C
Wet bulb temperature	32°F~122°F 0°C~50°C	0.1°F/0.1°C	±1.8°F/±1.0°C
Dew point temperature	32°F~122°F 0°C~50°C	0.1°F/0.1°C	±1.8°F/±1.0°C
Humidity	0%RH~80%RH	0.1%RH	±5.0%RH
Auto power off	30 minutes		
Data port	Bluetooth 4.0		
Power supply	9V battery		
Dimension	8.03×2.13×1.42"		
Weight	.38lb		

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

THERMOHYGROMETER (ECONOMIC TYPE) PART NO. 0312-TH50

- Environment comfort display: COMFORT, WET, DRY
- Time/temperature/humidity display
- Highest/lowest temperature and humidity memory function
- Alarm clock function
- Unit: °F, °C

SPECIFICATION

Temperature range	32°F~122°F/0°C~50°C
Temperature accuracy	±1.8°F (at 41°F~104°F), other range ±2.7°F ±1.0°C (at 5°C~40°C), other range ±1.5°C
Temperature resolution	.1°F/.1°C
Humidity range	10%RH~90%RH
Humidity accuracy	±5%RH (at 40%RH~80%RH), other range ±8%RH
Humidity resolution	1%RH
Power supply	1×AAA 1.5V Battery
Dimension	4.25×2.36×.59"
Weight	.16lb

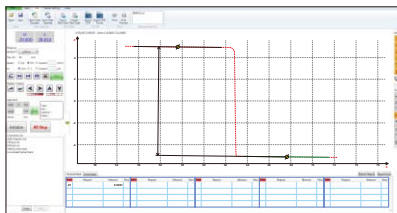


STANDARD DELIVERY

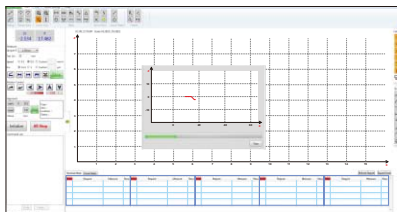
Main unit	1 pc
Battery	1 pc

SURFACE PROFILE MEASURING MACHINE PART NO. SPM-1000-U

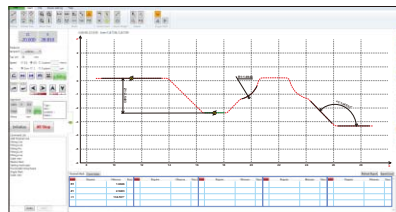
- Software is included, for surface profile measurement and data output
- Probe compensation
- Output as format xy, txt, csv, etc.
- Large range design, the leverage ratio is 1:2.2, maintain the original accuracy of the sensor
- The overall structure of the Z-axis sensor does not have any elastic components, ensuring the measuring force is constant regardless the position of probe



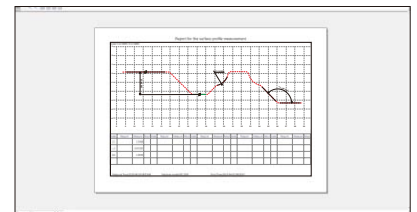
calibration



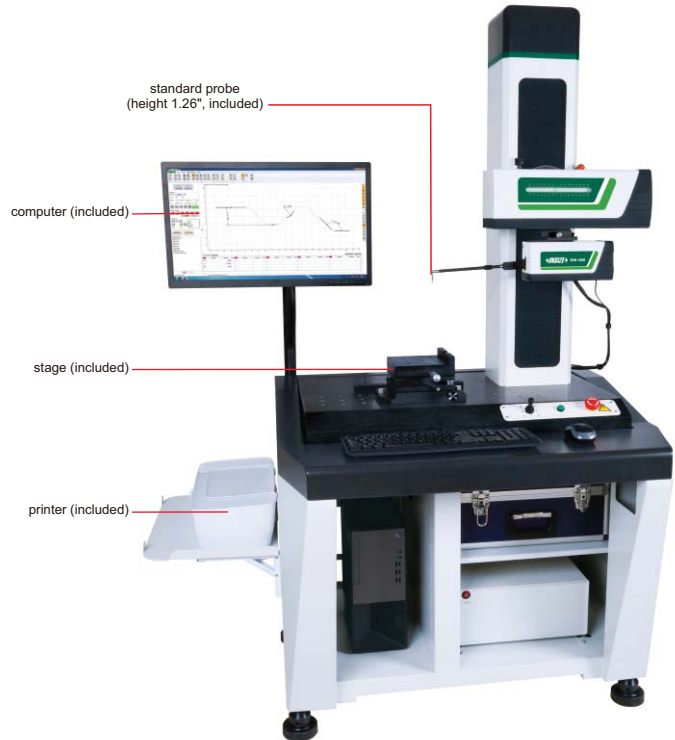
contour scanning



dimension measurement



data output

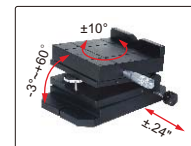


SPECIFICATION

X axis measuring range	5.51"
X axis resolution	7.87μm
X axis straightness	31.5μm/3.94"
X axis moving speed	.004~.39"/s
Z axis measuring range	±.79"
Z axis resolution	1.97μm
Z axis moving speed	.02~.39"/s
Linear accuracy	±(59+|200H|)μm, H is measuring height in inch
Angular measuring accuracy	±2'
Arc measuring accuracy	±(79+125R)μm, R is .079~.39" standard ball
Radius of probe tip	.001"
Moving direction	backward
Measuring force	.025~.035ozf
Measuring unit	mm/inch
Traceable angle	72° (upward), 87° (downward)
Drive mode	motor
Travel of Z axis	16.93"
Dimension (L×W×H)	47.24×27.56×70.08"
Power supply	110±5%V, 50Hz
Weight	705.48lb



vise (included)



stage (included)



standard balls (included)

STANDARD DELIVERY

Main unit	1 pc
Standard probe and arm	1 pc of each
Standard block	2 pcs
Standard ball	2 pcs
Standard shaft	1 pc
Stage	1 pc
Vise	1 pc
Measuring arm	1 pc
Computer	1 pc
Measurement software	1 pc
Printer	1 pc
Installation tools	1 set



standard blocks (included)



standard shaft (included)

OPTIONAL ACCESSORY

Probe	refer to details
-------	------------------

ROUGHNESS TESTER PART NO. ISR-C002

CAN BE OPERATED BY
MOBILE PHONES OR COMPUTERS

- Roughness tester can be operated by mobile phones (only Android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Support bluetooth printer
- 21 roughness parameters
- Display roughness value, profile and curve
- Memory of maximum 100 results
- Automatic power off



BLUETOOTH

DATA
OUTPUT

bluetooth printer
(optional)



software flash disk
(included)

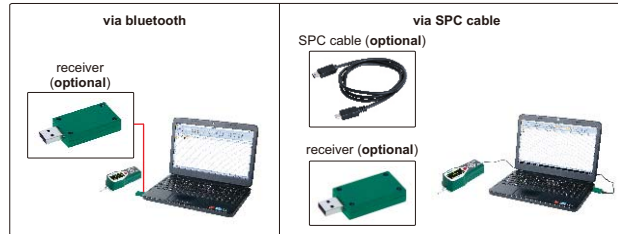


operate roughness tester by mobile phones



connect to mobile phones via bluetooth (only Android system), display roughness values, profile and curve

data can be sent to Excel by connecting to computer via bluetooth or SPC cable



via bluetooth

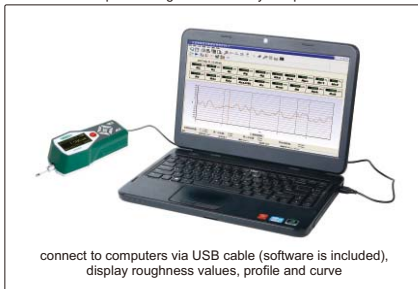
via SPC cable

receiver (optional)

SPC cable (optional)

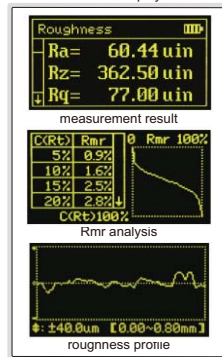
receiver (optional)

operate roughness tester by computers



connect to computers via USB cable (software is included), display roughness values, profile and curve

screen display



light duty test stand
(optional)



the maximum workpiece height is 8.66"

heavy duty test stand
(optional)



the maximum workpiece height is 12.20"

adjustable stand (included)



probe cover (included)



put the small workpieces directly under the probe for measurement

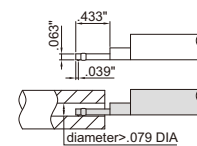
extension rod (optional), part no. ISR-C002-ER



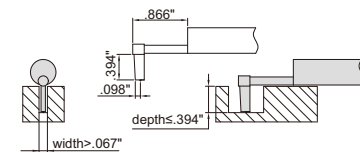
transverse rod (optional), part no. ISR-C002-TR



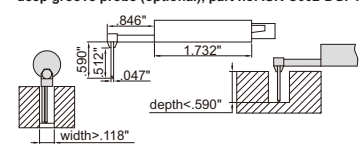
tiny hole probe (optional), part no. ISR-C002-SBP



deep groove probe (optional), part no. ISR-C002-DGP



deep groove probe (optional), part no. ISR-C002-DGP1



SPECIFICATION

Part No.	ISR-C002	
Parameters	Ra, Rz, Rq, Rv, Rp, RS, R3z, R3y, Rt, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry (JIS), Rmax	
Range	12598μin (-6299μin-6299μin)	
Accuracy	±10%	
Resolution (Ra)	.01μin	
Probe	type	inductive
	stylus radius/angle	196μin/90°
	stylus material	diamond
Measuring force	.01ozf	
Measuring unit	μin/μm	
Cut off	.01/.03/.1"	
Number of cut-off	1 to 5	
Moving speed	.02"/s, .04"/s	
Memory	100 measurement results	
Output	bluetooth and USB	
Power	built-in rechargeable battery	
Dimension (L×W×H)	5.55×2.16×1.57"	
Weight	.89lb	

STANDARD DELIVERY

Main unit	1 pc
Standard probe	1 pc
Calibration block and support	1 pc of each
Adjustable stand	1 pc
Probe cover	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Extension rod	ISR-C002-ER
Transverse rod	ISR-C002-TR
Tiny hole probe	ISR-C002-SBP
Deep groove probe	ISR-C002-DGP
Deep groove probe	ISR-C002-DGP1*
Light duty test stand	ISR-C002-STAND1
Heavy duty test stand	ISR-C002-STAND
Bluetooth printer	ISR-C002-PRINTER
Receiver	ISR-C300-RECEIVER
SPC cable	ISR-C300-SPC

*Need to be delivered with roughness tester ISR-C002

**ROUGHNESS TESTER (SEPARABLE TYPE)
PART NO. ISR-C300**

DATA OUTPUT **BLUETOOTH** **TOUCH SCREEN**

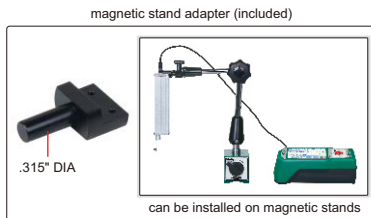
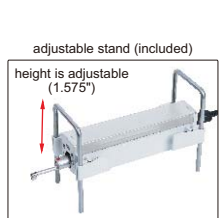
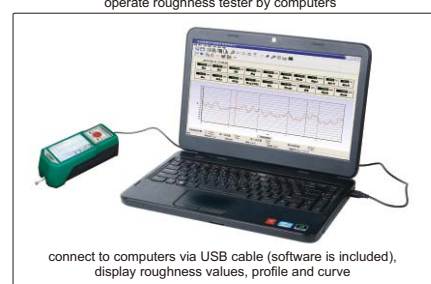
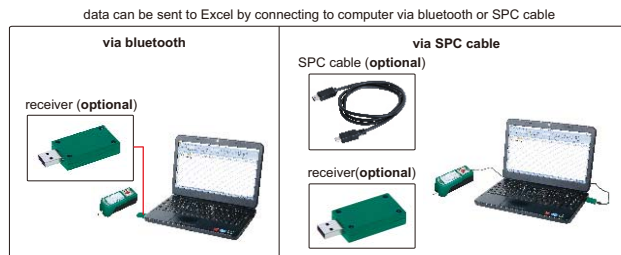
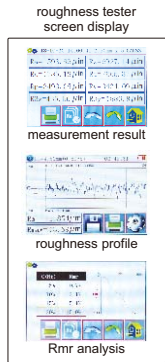
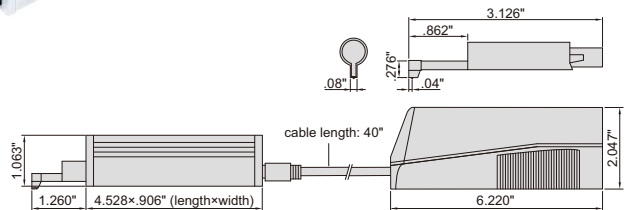
POPULAR MODEL



CAN BE OPERATED BY MOBILE PHONES OR COMPUTERS

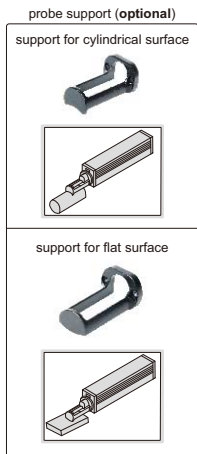
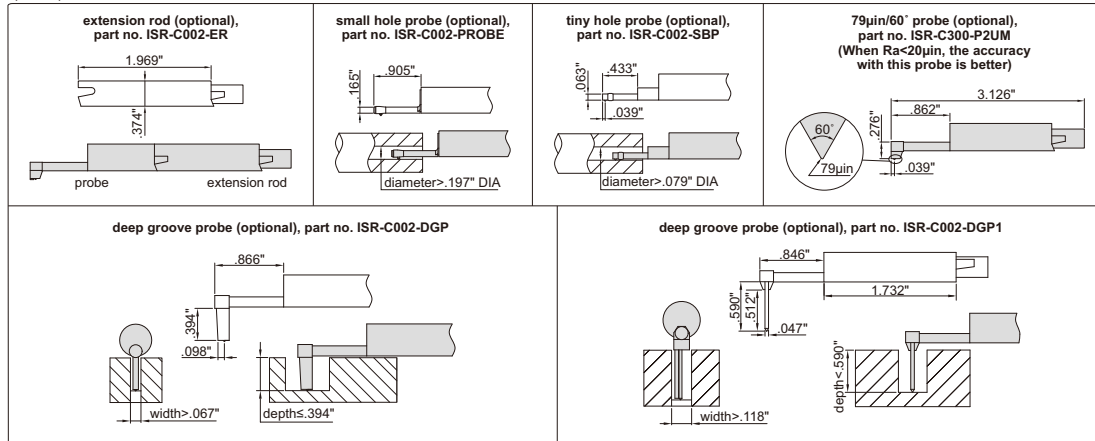


- Roughness tester can be operated by mobile phones (only Android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Support bluetooth printer
- 22 roughness parameters
- Meet ISO, DIN, ANSI, JIS standards
- Display roughness values, profile and curve
- Memory of maximum 100 data and waveform
- Built-in lithium battery, working time more than 50 hours
- Touch screen
- Automatic power off



NOTE: Please check whether the adapter can fit your height gages. When using INSIZE height gages, please use the dial test indicator holder of height gages

optional probes



To be continued

Continued from previous page

SPECIFICATION

Part No.		ISR-C300
Parameters		Ra, Rz, Rq, Rv, Rp, Rs, R3z, R3y, Rt, Rc, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry, Rmax
Range	X axis	.689"
	Z axis	12598µin (-6299µin~6299µin)
Accuracy		±10%
Resolution (Ra)		.01µin
Probe	type	inductive
	stylus radius/angle	196µin/90°
	stylus material	diamond
Measuring force		.01ozf
Measuring unit		µm/µin
Cut off		.01/.03/.1"
Number of cut-offs		1~5
Moving speed		.005"/s, .02"/s, .04"/s
Memory		100 measurement results
Output		bluetooth and USB
Power		built-in rechargeable battery
Dimension (L×W×H)		6.22×2.52×2.05"
Weight		.89lb

STANDARD DELIVERY

Main unit	1 pc
Standard probe	1 pc
Calibration block and support	1 pc of each
Connecting cable (long and short)	1 pc of each
Magnetic stand adapter	1 pc
Adjustable stand	1 pc
Touch pen	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

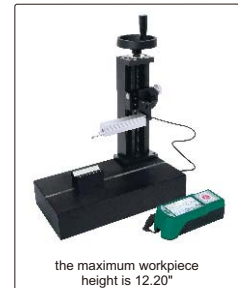
Extension rod	ISR-C002-ER
Small hole probe	ISR-C002-PROBE
Tiny hole probe	ISR-C002-SBP
Deep groove probe	ISR-C002-DGP
Deep groove probe	ISR-C002-DGP1*
79µin/60° probe	ISR-C300-P2UM
Bluetooth printer	ISR-C002-PRINTER
Height gage adapter	ISR-C300-LB1
Receiver	ISR-C300-RECEIVER
SPC cable	ISR-C300-SPC
Support for flat surface	ISR-C300-COVER1
Support for cylindrical surface	ISR-C300-COVER2
Light duty test stand	ISR-C002-STAND1
Heavy duty test stand	ISR-C002-STAND

*Need to be delivered with roughness tester ISR-C300

light duty test stand (optional)



heavy duty test stand (optional)



ROUGHNESS TESTER PART NO. ISR-T120

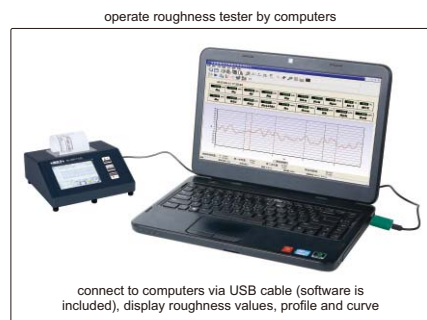
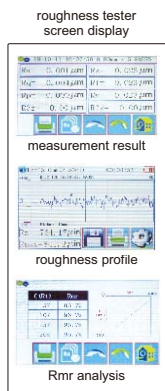
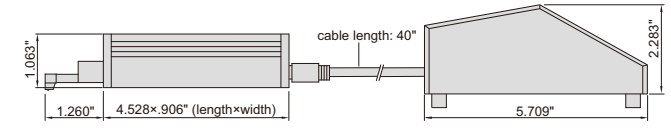
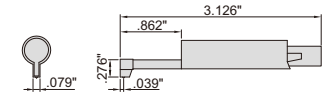
CAN BE OPERATED BY MOBILE PHONES OR COMPUTERS

BLUETOOTH

TOUCH SCREEN

DATA OUTPUT

- Roughness tester can be operated by mobile phones (only Android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Built-in printer can print measurement results and graphics
- 22 roughness parameters
- Meet ISO, DIN, ANSI, JIS standards
- Display roughness values, profile and curve
- Memory of maximum 100 data and waveform
- Built-in lithium battery, working time more than 50 hours
- Automatic power off



To be continued

Continued from previous page

magnetic stand adapter (included)



height gage adapter (optional)



NOTE: Please check whether the adapter can fit your height gages. When using INSIZE height gages, please use the dial test indicator holder of height gages

data can be sent to Excel by connecting to computer via bluetooth or SPC cable

via bluetooth



SPC cable (optional)



via SPC cable



heavy duty test stand (optional)

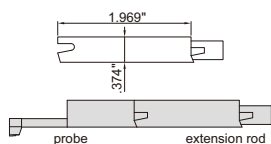


light duty test stand (optional)

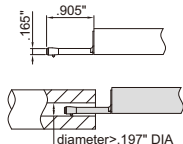


optional probes

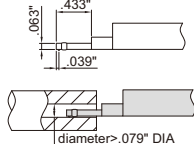
extension rod (optional), part no. ISR-C002-ER



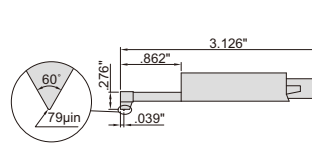
small hole probe (optional), part no. ISR-C002-PROBE



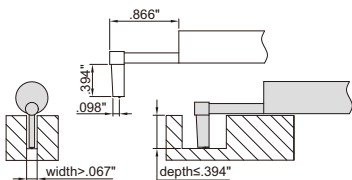
tiny hole probe (optional), part no. ISR-C002-SBP



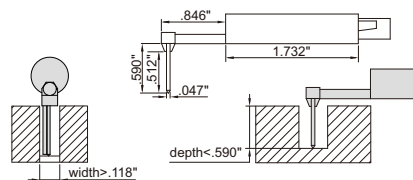
79µin/60° probe (optional), part no. ISR-C300-P2UM (when Ra < 20µin, the accuracy with this probe is better)



deep groove probe (optional), part no. ISR-C002-DGP



deep groove probe (optional), part no. ISR-C002-DGP1

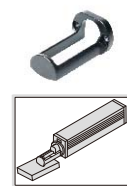


probe support (optional)

support for cylindrical surface



support for flat surface



SPECIFICATION

Parameters	Ra, Rz, Rq, Rv, Rp, Rs, R3z, R3y, Rt, Rc, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry, Rmax
Range	X axis .689" Z axis 25197µin (-12598µin~12598µin)
Accuracy	±10%
Resolution (Ra)	.01µin
Probe	type inductive stylus radius/angle 196µin/90° stylus material diamond
Measuring force	.01ozf
Measuring unit	µm/µin
Cut off	.01/.03/.1"
Number of cut-offs	1~5
Traverse speed	.005"/s, .02"/s, .04"/s
Memory	100 measurement results
Output	bluetooth and USB
Power	built-in rechargeable battery
Dimension (L×W×H)	6.10×5.71×2.28"
Weight	2.20lb

STANDARD DELIVERY

Main unit	1 pc
Standard probe	1 pc
Calibration block and support	1 pc of each
Magnetic stand adapter	1 pc
Adjustable stand	1 pc
Touch pen	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Extension rod	ISR-C002-ER
Small hole probe	ISR-C002-PROBE
Tiny hole probe	ISR-C002-SBP
79µin/60° probe	ISR-C300-P2UM
Deep groove probe	ISR-C002-DGP
Deep groove probe	ISR-C002-DGP1*
Height gage adapter	ISR-C300-LB1
Receiver	ISR-C300-RECEIVER
SPC cable	ISR-C300-SPC
Support for flat surface	ISR-C300-COVER1
Support for cylindrical surface	ISR-C300-COVER2
Light duty test stand	ISR-C002-STAND1
Heavy duty test stand	ISR-C002-STAND

*Need to be delivered with roughness tester ISR-T120

ROUGHNESS TESTER (BASIC TYPE) PART NO. ISR-C003

ATTENTION: THIS ROUGHNESS TESTER IS NOT SUITABLE FOR ROUGH TURNING, MILLING AND PLANING WORKPIECES



fixture for small shafts (optional)



application

- Unit: μm , μin
- Automatic power off

STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 pc
AC/DC adapter	1 pc



calibration block (included)

SPECIFICATION

Part No.	ISR-C003	
Parameters	Ra, Rz, Rq, Rt	
Range	Ra, Rq: 2~590 μin Rz, Rt: 4~1968 μin	
Accuracy	$\pm 10\%$	
Resolution (Ra)	.01 μin	
Probe	type	piezoelectric
	stylus radius/angle	393 $\mu\text{in}/90^\circ$
	stylus material	diamond
Measuring force	.012ozf	
Measuring unit	$\mu\text{in}/\mu\text{m}$	
Cut off	.01/.03/.1"	
Evaluation length	.05" for cut off .01"	
	.15" for cut off .03"	
	.2" for cut off .1"	
Moving speed	.03"/s	
Power	built-in rechargeable battery	
Dimension (L×W×H)	4.17×2.75×.94"	
Weight	.44lb	

OPTIONAL ACCESSORY

Fixture for small shafts	ISR-C003-FIXTURE
--------------------------	------------------

SURFACE ROUGHNESS SPECIMEN SET PART NO. ISR-CSE130

INSIZE PLUS
MADE IN EUROPE



- For checking, identifying and specifying the roughness by symbol
- Rust-proof, made of pure Nickel

Machining method	Roughness (Ra) *	Roughness (Rz) *	Quantity
Flat lapping	2, 4, 8 μin	22.1, 40, 63 μin	3 pcs
	0.05, 0.1, 0.2 μm	0.55, 1, 1.6 μm	
Reaming	16, 32, 63 μin	120, 240, 400 μin	3 pcs
	0.4, 0.8, 1.6 μm	3, 6, 10 μm	
Plain grinding	2, 4, 8, 16, 32, 63 μin	22.1, 40, 63, 120, 240, 400 μin	6 pcs
	0.05, 0.1, 0.2, 0.4, 0.8, 1.6 μm	0.55, 1, 1.6, 3, 6, 10 μm	
Horizontal milling	16, 32, 63, 125, 250, 500 μin	100, 160, 320, 640, 1280, 2000 μin	6 pcs
	0.4, 0.8, 1.6, 3.2, 6.3, 12.5 μm	2.5, 4, 8, 16, 32, 50 μm	
Vertical milling	16, 32, 63, 125, 250, 500 μin	100, 160, 320, 640, 1280, 2000 μin	6 pcs
	0.4, 0.8, 1.6, 3.2, 6.3, 12.5 μm	2.5, 4, 8, 16, 32, 50 μm	
Turning	16, 32, 63, 125, 250, 500 μin	100, 160, 320, 640, 1280, 2000 μin	6 pcs
	0.4, 0.8, 1.6, 3.2, 6.3, 12.5 μm	2.5, 4, 8, 16, 32, 50 μm	

*The actual value is the value to be calibrated.

MOTORIZED DIGITAL ROCKWELL HARDNESS TESTER PART NO. HDT-RT151

TOUCH SCREEN

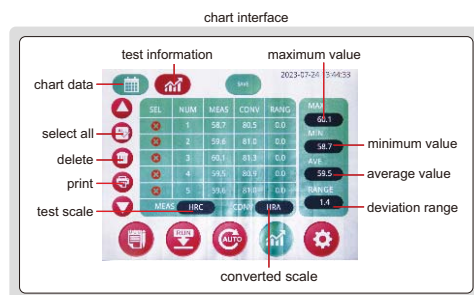
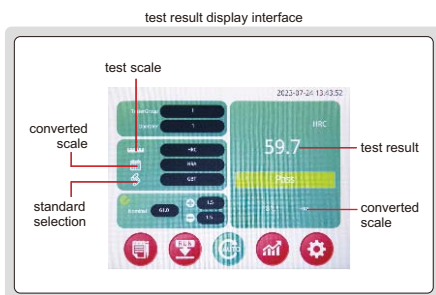
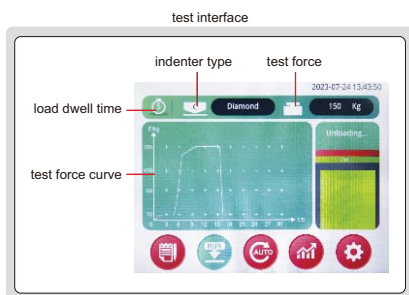
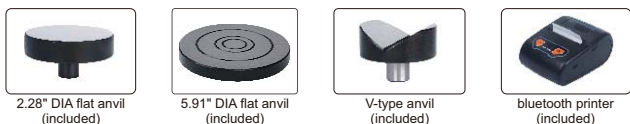
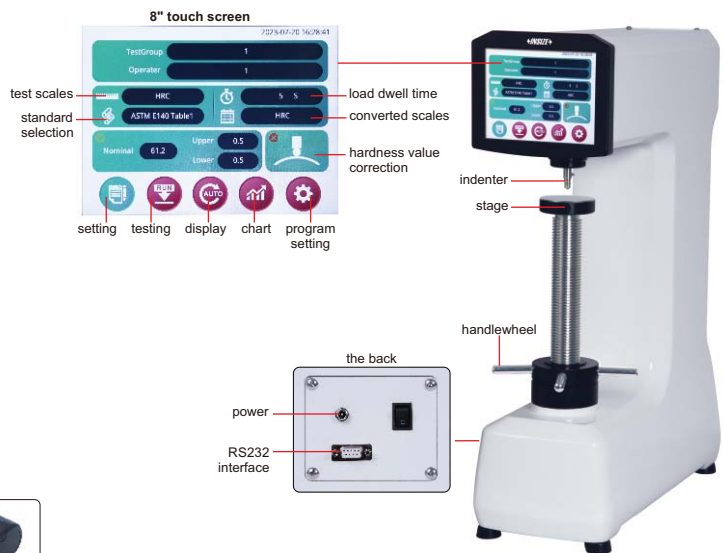
BUILT-IN BLUETOOTH

FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

INSPECTION CERTIFICATE

POPULAR MODEL

- Electronic loading test force, high accuracy of force value, and stable measurement value
- Touch screen operation and display, simple operation interface
- 15 types of Rockwell hardness scales can be tested
- Convertible to various hardness standards such as HB and HV
- 500 sets of storage
- With correction function, the hardness value can be corrected based on the size of the cylinders
- According to ISO 6508



SPECIFICATION

Measurement range		20~88HRA, 20~100HRB, 20~70HRC
Hardness scale	with indenter included	HRA, HRB, HRC, HRD, HRF, HRG
	with optional indenter	HRE, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV
Preliminary test force		98N/10kgf for Rockwell
Test force		588N (60kg), 980N (100kg), 1471N (150kg)
Stage elevation		manual
Load control		automatic (load/dwell/unload)
Load dwell time		2~60 second
Resolution		0.1 HR
Max. workpiece height		9.06"
Max. testing width		6.69"
Power supply		100~240V, 50/60HZ
Dimension		18.70×7.87×27.56"
Weight		154lb

STANDARD DELIVERY

Main unit	1 pc
Diamond indenter	1 pc
1/16" DIA carbide ball indenter	1 pc
5.91" DIA flat anvil	1 pc
2.28" DIA flat anvil	1 pc
V-type anvil	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC40~50	1 pc
Hardness test block HRC60~70	1 pc
Hardness test block HRBW80~100	1 pc
Hardness test block HRA80~90	1 pc
Bluetooth printer	1 pc
Anti-dust cover	1 pc

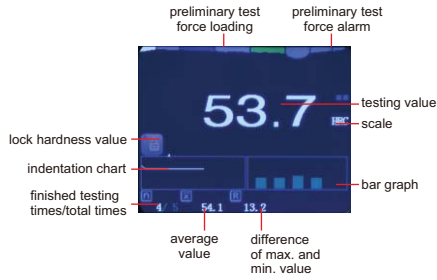
OPTIONAL ACCESSORY

Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRB80~100	HDT-B-HRB
Hardness test block HR15N78~88	HDT-B-HR15N2
Hardness test block HR30N55~73	HDT-B-HR30N2
Hardness test block HR30T73~82	HDT-B-HR30T

MOTORIZED DIGITAL ROCKWELL HARDNESS TESTER PART NO. ISH-MRD200-U

INSPECTION
CERTIFICATE

DATA
OUTPUT



- Tolerance testing
- Set testing times (2~10) to have average value and the difference of max. and min. value
- Convert to other Rockwell scales, HV or HB
- Memory of 500 testing values for browsing and output
- Testing value can be sent to wireless printer automatically
- Calibration function compensates the testing 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
- Keyboard signal, can be transmitted to Excel
- According to ISO 6508



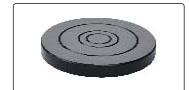
software flash disk (included)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD HRF, HRG (with standard indenters) HRE, HRH, HRK (with optional indenter)
Preliminary test force	98N/10kgf
Test force	588N/60kgf, 980N/100kgf, 1471N/150kgf
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Resolution	0.1HR
Output	wireless and USB
Memory	500
Max. workpiece height	6.69"
Max. testing width	6.50" (from the center of indenter to the wall of main body)
Power supply of the display unit	built-in rechargeable battery
Power supply	110V, 50/60Hz
Dimension	20.47×6.30×27.56"
Weight	132lb



2.36" DIA flat anvil (included)



5.91" DIA flat anvil (included)



V-type anvil (included) for cylinders with diameter .16~2.36 DIA



small V-type anvil (optional) for cylinders with diameter .08~.16 DIA



desk (optional)



wireless printer (optional)

STANDARD DELIVERY

Main unit	1 pc
2.36" DIA flat anvil	1 pc
5.91" DIA flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
1/16" DIA carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

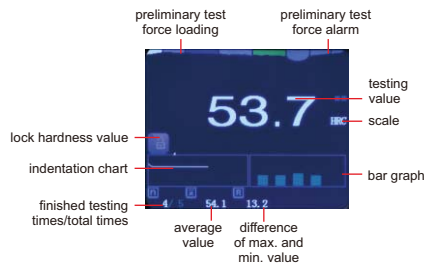
OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
1/8" DIA carbide ball indenter	ISH-EHK-INDENTER
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MANUAL DIGITAL ROCKWELL HARDNESS TESTER PART NO. ISH-RD200

INSPECTION
CERTIFICATE

DATA
OUTPUT

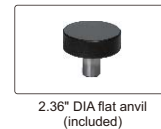


- Tolerance testing
- Set testing times (2~10) to have average value and the difference of max. and min. value
- Convert to other Rockwell scales, HV or HB
- Memory of 500 testing values for browsing and output
- Testing value can be sent to wireless printer automatically
- Calibration function compensates the testing 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
- Keyboard signal, can be transmitted to Excel
- According to ISO 6508



SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD HRF, HRG (with standard indenters) HRE, HRH, HRK (with optional indenter)
Preliminary test force	98N/10kgf
Test force	588N/60kgf, 980N/100kgf, 1471N/150kgf
Stage elevation	manual
Load control	manual
Resolution	0.1HR
Output	wireless and USB
Memory	500
Max. workpiece height	6.69"
Max. testing width	6.50" (from the center of indenter to the wall of main body)
Power supply	built-in rechargeable battery
Dimension	20.47×6.30×27.56"
Weight	132lb



STANDARD DELIVERY

Main unit	1 pc
2.36" DIA flat anvil	1 pc
5.91" DIA flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
1/16" DIA carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
1/8" DIA carbide ball indenter	ISH-EHK-INDENTER
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MANUAL ROCKWELL HARDNESS TESTER (BASIC TYPE) PART NO. HDT-RW160

INSPECTION
CERTIFICATEPOPULAR
MODEL

- According to ISO 6508



SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N (10kg)
Test force	588N (60kg), 980N (100kg), 1471N (150kg)
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	6.69"
Max. testing width	5.31" (from the center of indenter to the wall of main body)
Dimension	18.35×9.37×24.80"
Weight	154lb

STANDARD DELIVERY

Main unit	1 pc
2.28" flat anvil	1 pc
5.91" flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
1/16" DIA steel ball indenter	1 pc
1/16" DIA steel ball	5 pcs
Level	1 pc
Hardness test block HRA80~88	1 pc
Hardness test block HRB85~95	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC35~55	1 pc
Hardness test block HRC60~70	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRA80~84	HDT-B-HRA
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35~55	HDT-B-HRC2
Hardness test block HRC60~70	HDT-B-HRC3
Small V-type anvil	HDT-RW160-SV
Desk	HDT-DESK

2.28" DIA flat anvil
(included)5.91" DIA flat anvil
(included)V-type anvil (included)
for cylinders with
diameter .16~2.36 DIAsmall V-type anvil (optional)
for cylinders with diameter
.08~.16 DIA

desk (optional)



level (included)

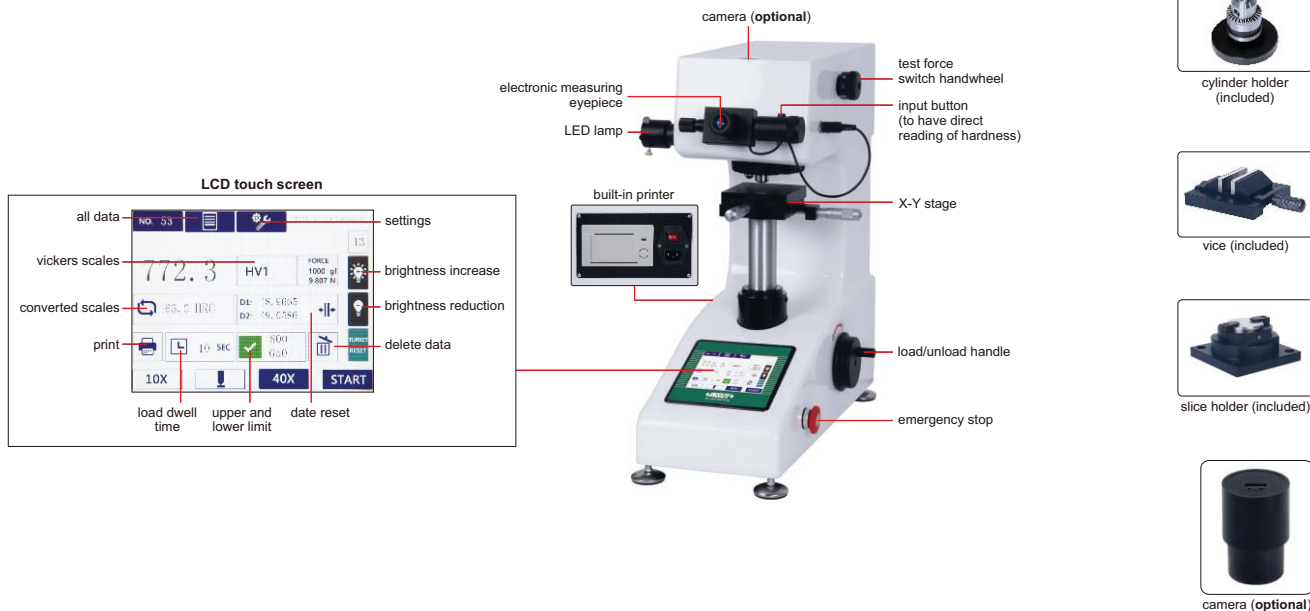
DIGITAL MICRO-VICKERS HARDNESS TESTER (STANDARD TYPE) PART NO. HDT-MVH1100-U

MOTOR DRIVEN
TURRET

PRESS INPUT BUTTON TO HAVE
DIRECT READING OF HARDNESS

INSPECTION
CERTIFICATE

TOUCH
SCREEN



- Touch screen color LCD display
- Data storage and average value calculation
- Automatic switch between the indenter and objective lens
- According to ISO 6507

SPECIFICATION

Test force	0.098N (10gf), 0.245N (25gf), 0.49N (50gf), 0.98N (100gf), 1.96N (200gf), 2.94N (300gf), 4.9N (500gf), 9.8N (1kgf)
Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Converted scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Range	5~3000HV
Length measurement resolution	1µm/0.025µm
Objective/indenter switch	motor driven turret
Stage lifting	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Objective	10X, 40X
Eyepiece	10X
Total magnification	10X (for measurement or observation), 400X (for measurement)
Max. workpiece height	3.54"
Max. testing width	3.74" (from the center of indenter to the wall of main body)
X-Y stage	dimensions: 3.94×3.94", travel range .98×.98"
Data output	built-in printer
Power supply	110V, 50/60Hz
Dimension	20.08×11.42×22.44"
Weight	88lb

camera and measuring system



STANDARD DELIVERY

Main unit	1 pc
10X, 40X objective	1 pc of each
Micro Vickers indenter	1 pc
Hardness test block 400~500HV0.2	1 pc
Hardness test block 700~750HV1	1 pc
Slice holder	1 pc
Vice	1 pc
Cylinder holder	1 pc
Anti-dust cover	1 pc

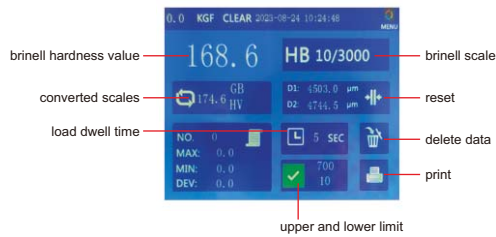
OPTIONAL ACCESSORY

Hardness test block 400~500HV0.2	HDT-B-HV02C
Hardness test block 700~750HV1	HDT-B-HV1F
Camera	HDT-MVH-CM
Measuring system (manual)	HDT-MVH-SW
Measuring system (automatic)	HDT-MVH-AW

MOTORIZED DIGITAL BRINELL HARDNESS TESTER

TOUCH SCREEN

FORCE LOADING BY ELECTRIC MOTOR (WITHUOT WEIGHT)



- Touch screen color LCD display
- Measure the indentation with microscope, automatically calculate the hardness value and display it on the screen
- Electric loading test force, without weights
- Casting case, structurally stable and not deformed
- According to ISO 6506

SPECIFICATION

Part No.	HDT-MB710-U	
Turret rotation	automatic	
Test force	612.5N (62.5kgf), 980N (100kgf), 1.225kN (125kgf), 1.837kN (187.5kgf), 2.45kN (250kgf), 4.9kN (500kgf), 7.35kN (750kgf), 9.8kN (1000kgf), 14.7kN (1500kgf), 29.4kN (3000kgf)	
Brinell scale	HBW2.5/62.5, HBW2.5/187.5, HBW5/125, HBW5/750, HBW10/100, HBW10/250, HBW10/500, HBW10/1000, HBW10/1500, HBW10/3000	
Range	8~650HBW	
Hardness resolution	0.1HBW	
Stage elevation	manual	
Load control	automatic (load/dwell/unload)	
Load dwell time	0~60 second	
Measuring microscope	magnification	20X
	resolution	0.1µm/3.94µin
Max. workpiece height	7.84"	
Max. testing width	5.31" (form the center of indenter to the wall of main body)	
Data output	built-in printer, RS232	
Power supply	110V, 50/60Hz	
Dimension	20.08×8.27×29.53"	
Weight	287lb	



STANDARD DELIVERY

Main unit	1 pc
3.07" DIA flat anvil	1 pc
7.87" DIA flat anvil	1 pc
V-type anvil	1 pc
.098" DIA carbide ball indenter	1 pc
.197" DIA carbide ball indenter	1 pc
.394" DIA carbide ball indenter	1 pc
Hardness test block 100~200HBW2.5/187.5	1 pc
Hardness test block 90~200HBW10/1000	1 pc
Hardness test block 100~200HBW10/3000	1 pc

OPTIONAL ACCESSORY

Hardness test block 100~200HBW2.5/187.5	HDT-B-HB25A1
Hardness test block 90~200HBW10/1000	HDT-B-HB10C1
Hardness test block 100~200HBW10/3000	HDT-B-HB10A1
Desk	HDT-DESK

PORTABLE LEEB HARDNESS TESTER (BASIC TYPE) PART NO. HDT-LP200

INSPECTION
CERTIFICATE

POPULAR
MODEL



- Can change probes
- Dual-coil probe for high accuracy
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σ_b)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data
- Operation temperature: 14°F~113°F
- According to ASTM A956, GB/T 17394

SPECIFICATION

Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HSD/1 σ_b
Accuracy	± 6 HLD (when HLD=800)
Measuring range	HL 170-960/HRC 17-70/HRB 13-109/HB 20-655/ HV 80-940/HSD 32-99.5/ σ_b (rm) 255-2639N/mm ²
Power supply	2xAA battery
Dimension	5.31×3.03×1.26"
Weight	.53lb



STANDARD DELIVERY

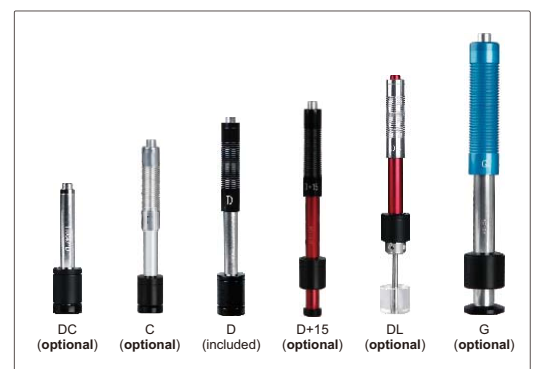
Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
Impact device D	1 pc



OPTIONAL ACCESSORY

Impact device DC	HDT-LP200-DC
Impact device C	HDT-LP200-C
Impact device D+15	HDT-LP200-D15
Impact device DL	HDT-LP200-DL
Impact device G	HDT-LP200-G
Hardness test block D *	HDT-B-HLD3
Hardness test block G *	HDT-B-HLG2
Support rings	ISH-PH-SP9

* Hardness test block G (HDT-B-HLG2) is for impact device G (HDT-LP200-G)
Hardness test block D (HDT-B-HLD3) is for all other impact devices



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)	80 μ m	16 μ m	80 μ m	80 μ m	80 μ m	280 μ m
Minimum weight of workpiece	direct measurement	11.02lb	3.31lb	11.02lb	11.02lb	33.08lb
	on solid support	4.41lb	1.10lb	4.41lb	4.41lb	11.02lb
	coupled on plate	.11lb	0.04lb	.11lb	.22lb	.11lb	1.10lb
Minimum thickness of workpiece	.12"	.04"	.12"	.12"	.12"	.39"

PORTABLE LEEB HARDNESS TESTER (WITH WIRELESS PROBE) PART NO. HDT-WP201



- Bluetooth digital probe
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σ_b)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data
- Operation temperature: 14°F~113°F
- According to ASTM A956, DIN 50156 GB/T 17394



hardness test block D (included)



small support ring (included)



bluetooth printer (optional)

SPECIFICATION

Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HSD/1 σ_b
Accuracy	± 6 HLD (when HLD=800)
Measuring range	HL 170-960/HRC 17-69/HRB 13-101.7/HB 20-655/ HV 80-940/HSD 32-99.5/ σ_b (rm) 255-2180N/mm ²
Power supply	2xAA battery
Dimension	5.31×3.03×1.26"
Weight	.53lb



large font display

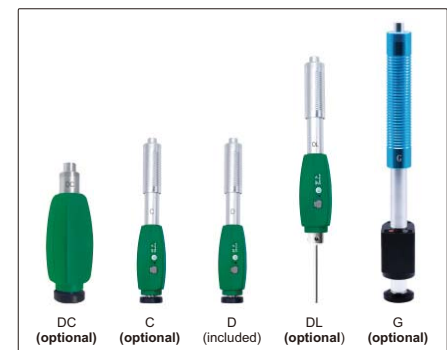
statistics display

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
Impact device D	1 pc

OPTIONAL ACCESSORY

Impact device DC	HDT-WL320-DCW
Impact device C	HDT-WL320-CW
Impact device DL	HDT-WL320-DLW
Impact device G	HDT-WL320-GW
Hardness test block D	HDT-B-HLD3
Bluetooth printer	ISH-LP200-PRINTER
Support rings	ISH-PH-SP9



DC (optional)

C (optional)

D (included)

DL (optional)

G (optional)

APPLICABLE WORKPIECE

Impact device	DC	C	D	DL	G
Application	inner wall of small space	small or thin workpiece, coating layer	general use	narrow slot or small hole	casting or forging workpiece
Maximum roughness of workpiece (Ra)	80 μ m	16 μ m	80 μ m	80 μ m	280 μ m
Minimum weight of workpiece	direct measurement	11.02lb	3.31lb	11.02lb	33.08lb
	on solid support	5.51lb	1.10lb	4.41lb	11.02lb
	coupled on plate	.11-4.41lb	0.04lb	.11-4.41lb	.22lb	1.10lb
Minimum thickness of workpiece	.12"	.04"	.12"	.12"	.39"

PEN-TYPE LEEB HARDNESS TESTER (ADVANCED TYPE) PART NO. HDT-L410

DATA
OUTPUT

HIGH
ACCURACY

DL PROBE IS
OPTIONAL

INSPECTION
CERTIFICATE



wireless printer
(optional)



hardness test
block D (included)



small support ring
(included)



VIDEO



software flash disk
(included)

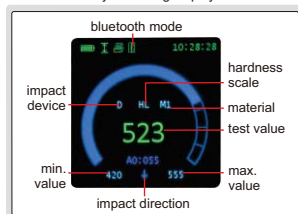


- Metal housing
- HD TFT 320×320 display
- Impact device D
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (SGM)
- Four display modes
- Automatic direction correction
- Tolerance testing
- Automatic power off, automatic calculation of statistics
- Dual value display, shows both Leeb and other conversion values
- 31 files can be saved, each containing 100 measurement data
- Connected to PC software via USB or Bluetooth 2.0
- Connected with printer via Bluetooth
- Operation temperature: -4°F~158°F
- According to ASTM A956, DIN 50156, GB/T 17394

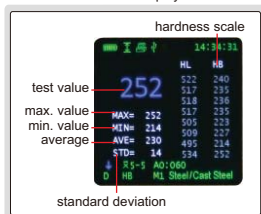
DL probe can be installed (optional)



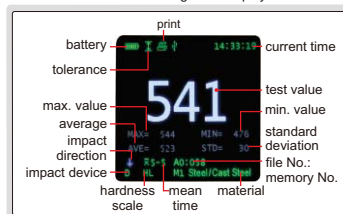
dynamic ring display



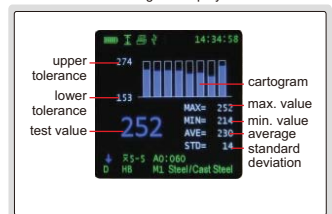
statistic display



can choose large font display



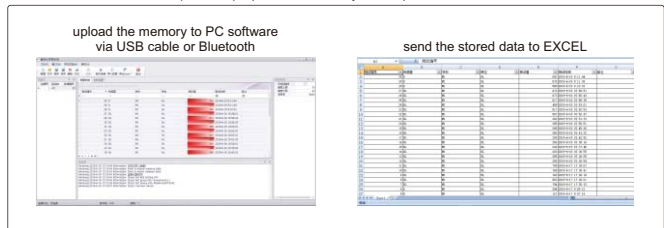
histogram display



SPECIFICATION

Resolution	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 0.1HRA, 0.1HS, 1SGM	
Accuracy	±4HLD (when HLD=800)	
Output	USB and bluetooth	
Applicable workpiece	minimum weight	11.02lb (direct measurement)
		4.41lb (on solid support)
		.22lb (coupled on plate)
	minimum thickness	.20"
	minimum radius of curved surface:	1.18"
	maximum roughness (Ra):	79µin
Power supply	built-in 3.7V rechargeable battery	
Dimension	5.83×1.73×.87"	
Weight	.25lb	

Software (included), upload the memory to PC, print and send to EXCEL



STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
AC/DC adapter	1 pc
Software flash disk and USB cable	1 pc

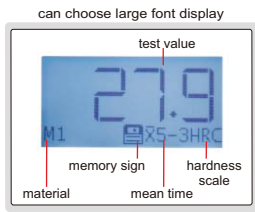
OPTIONAL ACCESSORY

Printer	HDT-L410-PRINTER
Support rings	refer to details
Hardness test block D	HDT-B-HLD3
DL probe	HDT-L410-DL

PEN-TYPE LEEB HARDNESS TESTER (BASIC TYPE) PART NO. HDT-L411

INSPECTION
CERTIFICATE

DATA
OUTPUT



- Impact device D
- Universal testing angle, no need to set impact direction
- Dual-coil probe, high accuracy
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (SGM)
- Dual value display, shows both Leeb and converted hardness
- High contrast digital LCD display
- Can choose large font display
- Automatically calculate maximum, minimum, average value
- Connected to PC via USB
- Save 999 data
- Operation temperature: -4°F~113°F
- According to ASTM A956, DIN 50156, GB/T 17394



software flash disk (included)

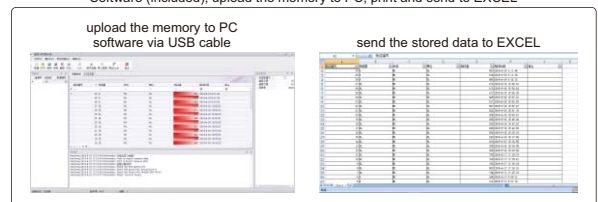


small support ring (included)



hardness test block D (included)

Software (included), upload the memory to PC, print and send to EXCEL



SPECIFICATION

Resolution	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 0.1HRA, 0.1HS, 1SGM	
Accuracy	±6HLD (when HLD=800)	
Output	USB	
Measuring range	HL 100-960/HRC 1-74.7/HRB 1.2-140/HB 28-1027/HV 45-1230 HS 4-112/HRA 7-88.5/SGM (rm) 118-3315N/mm ²	
Applicable workpiece	minimum weight	11.02lb (direct measurement)
		4.41lb (on solid support)
		.11lb (coupled on plate)
	minimum thickness .2"	
	minimum radius of curved surface: 1.18"	
	maximum roughness (Ra): 80µin	
Power supply	1xAAA battery	
Dimension	5.83×1.77×0.83"	
Weight	.23lb	

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Cleaning brush	1 pc
AAA battery	1 pc
Small support ring	1 pc
Software flash disk and USB cable	1 pc

OPTIONAL ACCESSORY

Support rings	refer to details
Hardness test block D	HDT-B-HLD3

PORTABLE ROCKWELL HARDNESS TESTER PART NO. ISHR-P151



flat anvil (included)



V-type anvil (included)



anvil extension for thin workpieces (included)

- According to ISO 6508, ASTM E18

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	.98"
Max. testing depth	.98" (from the center of indenter to the main body)
Dimension	9.45×2.76×6.30"
Weight (with base)	5.51lb



base (included)

STANDARD DELIVERY

Main unit	1 pc
Diamond indenter	1 pc
1/16" DIA carbide ball indenter	2 pcs
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Flat anvil	1 pc
V-type anvil	1 pc
Base	1 pc
Anvil extension	1 pc
Magnifier	2 pcs

HAMMER IMPACT BRINELL HARDNESS TESTER PART NO. HDT-PB350



- Measure Brinell hardness of large and heavy workpieces
- 1580kg test force and .29" DIA ball indenter, equal to 3000kg test force and .39" DIA ball indenter



SPECIFICATION

Measuring range	100~350HBW (with .29" DIA indenter, included) 350~650HBW (with .16" DIA indenter, optional)
Test force	1580kg
Accuracy	±5%HBW
Repeatability	±5%HBW
Measuring microscope	20X, graduation 0.01mm/.0004"
Dimension	7.87×1.97×3.94"
Weight	1.76lb

STANDARD DELIVERY

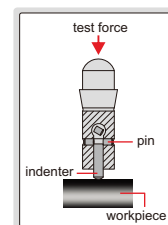
Main unit	1 pc
.29" DIA indenter	1 pc
Hardness test block	1 pc
Pin	250 pcs
Pin removal tool	1 pc
Measuring microscope	1 pc



measuring microscope (included)



hammer impact to apply test force



the pin is broken when test force 1580kg is reached



pins (included)

OPTIONAL ACCESSORY

.16" DIA indenter	ISHB-P101-INDENTER
Pin (250 pcs)	ISHB-P101-PIN

ALUMINUM HARDNESS TESTERS (BASIC TYPE)

- To measure the hardness of soft metal such as aluminum alloy, copper, brass, soft steel, etc.
- According to ASTM B647-10 (2016)



ISHW-H10

STANDARD DELIVERY

Main unit	1 pc
Spare indenter	1 pc
Hardness test block	1 pc
Wrench	1 pc

SPECIFICATION

Part No.	ISHW-H10	ISHW-H11	ISHW-H12	ISHW-H13	ISHW-H14	ISHW-H15
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	.024~.23"	.024~.51"	.024~.31"	.024~.23"	.024~.23"	.024~.23"
Internal diameter requirement of tube workpiece	>.39" DIA	>.39" DIA	>.39" DIA	>.39" DIA	>.39" DIA	>.39" DIA
Wall thickness requirement of tube workpiece	.024~.23"	.24~.51" (internal diameter .39~.91" DIA) .024~.23" (internal diameter >.91" DIA)	.024~.31"	.024~.23"	.024~.23"	.024~.23"
Hardness range	0~20HW					
Min. reading	1HW					
Accuracy	±0.5HW (at 5~17HW)					
Dimension	8.07×1.18×3.74"					
Weight	1.10lb					

ALUMINUM HARDNESS TESTER PART NO. 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

Application	for aluminum alloy general use
Thickness requirement of flat workpiece	.024~.23"
Internal diameter requirement of tube workpiece	>.39" DIA
Wall thickness requirement of tube workpiece	.024~.23"
Hardness range	0~20HW
Min. reading	1HW
Accuracy	±0.5HW (at 5~17HW)
Dimension	8.07×1.18×3.35"
Weight	1.10lb

STANDARD DELIVERY

Main unit	1 pc
Spare indenter	1 pc
Hardness test block	1 pc
Wrench	1 pc

DIGITAL SHORE DUROMETERS

DATA
OUTPUT



ISH-DSA



ISH-DSD

- According to ISO868, ISO7619, ASTM D 2240
- Average and peak (max.) mode
- Dwell time is adjustable
- Tolerance testing
- 500 memories
- Wireless connection to printer
- Handhold use or work with test stand (part no. ISH-DS-STANDA)
- Automatic power off



software flash disk
(included)



calibration block (included)



printer (optional)

SPECIFICATION

Part No.	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	.10"	
Output	wireless and USB	
Power supply	built-in rechargeable battery	
Dimension	6.02×1.97×1.14"	
Weight	.37lb	

*Use ISH-DSD when measuring result is higher than 90HA
Use ISH-DSA when measuring result is lower than 20HD

STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Printer	ISH-DS-PRINTER
Test stand	ISH-DS-STANDA

TEST STAND FOR DIGITAL SHORE DUROMETERS PART NO. ISH-DS-STANDA



weight block D (optional)
for ISH-DSD



- For digital shore durometers (part no. **ISH-DSA** and **ISH-DSD**)
- Perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations
- Special structure for stable loading
- Weight block A (included) is for **ISH-DSA**, weight block D (optional) is for **ISH-DSD**

SPECIFICATION

Stage diameter	4.5" DIA
Max. workpiece height	2.48"
Max. testing width	1.77" (from test point to the column)
Dimension	7.68"×7.68"×14.57"
Weight	12.37lb

STANDARD DELIVERY

Test stand	1 pc
Weight block A (for ISH-DSA)	1 pc

OPTIONAL ACCESSORY

Weight block D (for ISH-DSD)	ISH-DS-W4
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SHORE DUROMETERS

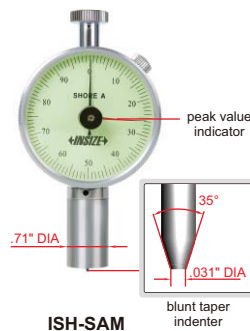
- According to ISO868, ISO7619, ASTM D 2240
- With peak value indicator
- Optional accessory: test stand **ISH-STAC**



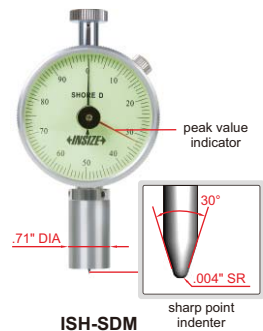
SPECIFICATION

Part No.	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	.10"	
Dimension	4.53×2.36×.98"	
Weight	.35lb	

* Use **ISH-SDM** when measuring result is higher than 90HA
Use **ISH-SAM** when measuring result is lower than 20HD



ISH-SAM



ISH-SDM



calibration block (optional)

OPTIONAL ACCESSORY

Calibration block	ISH-DS-BLOCK
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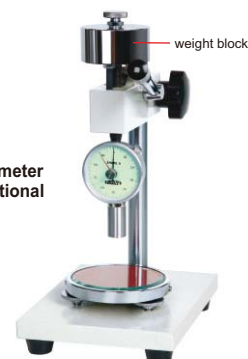
TEST STAND FOR SHORE DUROMETER PART NO. ISH-STAC

- For shore durometers (part no. **ISH-SAM**)
- Perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations

SPECIFICATION

Applicable durometer	ISH-SAM
Stage diameter	3.94" DIA
Max. workpiece height	2.95"
Max. testing width	2.56" (from test point to the column)
Weight block	2.2lb

durometer
is optional



DIGITAL SPRING TESTER

DATA
OUTPUT



- Peak hold and automatic release function
- Set upper and lower limits, red and green indicator and buzzer alarm
- Automatic conversion of three units: N, kgf, lbf
- Built in printer
- Automatic power off



SPECIFICATION

Part No.	ISF-S50-U
Maximum load	11lbf
Resolution	.001lbf
Range of digital scale	3.7"
Resolution of digital scale	.0005"
Disk diameter	1.9" DIA
Maximum free length of spring	3.7"
Measuring range of force	5%~100% (maximum load)
Accuracy of force	±1% (maximum load)
Data output	RS232
Power supply	110V, 50/60Hz
Dimension	11.8×9.3×24.4"
Weight	38.14lb

STANDARD DELIVERY

Main unit	1 pc
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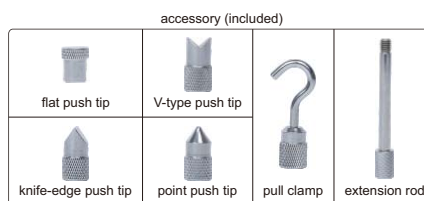
DIGITAL FORCE GAGES (HIGH ACCURACY)

INSIZE
INSPECTION
CERTIFICATE

DATA
OUTPUT



- Can be used for tension and pressure tests
- Peak (max.) and tracking mode
- Units: lbf, ozf, mN, N, gf, kgf
- Tolerance testing
- 1000 memories
- Automatic power off
- Metal case, touch buttons
- LCD display with backlight
- The display flips over when the bottom faces up
- Overload alarm
- Keyboard signal, can be transmitted to Excel



ISF-DF100A

SPECIFICATION

Part No.	ISF-DF50A	ISF-DF100A	ISF-DF200A	ISF-DF500A	ISF-DF1KA
Type	internal sensor				
Load capacity (lbf)	1.1	2.2	44	110	220
Resolution (lbf)	0.001	0.005	0.01	0.01	0.05
Accuracy	±0.2% (of load capacity)				
Power supply	built-in rechargeable battery				



printer (optional)



software flash disk (included)

STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Software and USB cable	1 pc
Push/pull accessory	6 pcs (flat push tip, V-type 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 GAGES

INSPECTION
CERTIFICATE

DATA
OUTPUT

- Push and pull test
- Units: lbf, ozf, N, gf, kgf
- 500 memories
- Automatic power off
- Metal case
- LCD display with backlight
- The display flips over when the bottom faces up
- Overload alarm



ISF-1DF100



printer (optional)



software flash disk
(included)

SPECIFICATION

Part No.	ISF-1DF10	ISF-1DF50	ISF-1DF100	ISF-1DF500	ISF-1DF1000
Load capacity (lbf)	2.2	11	22	110	220
Resolution (lbf)	0.001	0.01	0.01	0.1	0.1
Accuracy	±0.3% (of load capacity)				
Measuring mode	tracking, peak (max.), low and high limits with judgement				
Power supply	built-in rechargeable battery				
Dimension	5.91×2.87×1.30"				
Weight	.99lb				

accessory (included)



STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Software and USB cable	1 pc
Push/pull accessory	6 pcs (flat push tip, V-type push tip, knife-edge push tip, point push tip, pull clamp, extension rod)

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
Test stand	ISF-MT1K

TEST STAND FOR DIGITAL FORCE GAGE PART NO. ISF-MT1K

- For digital force gages (part no. ISF-1DF□□□ and ISF-DF□□□)
- To be used in vertical and horizontal orientation



VIDEO

force gage
is optional



SPECIFICATION

Load capacity	220lbf
Travel	7.87" (.12" vertical movement per revolution of handwheel)
Dimension	7.72x9.84x17.56"
Weight	28.67lb

OPTIONAL ACCESSORY

Digital scale (range: 8", resolution .0005"/0.01mm)	ISF-MT1K-SCALE
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horizontal orientation test



digital scale (optional)

DIGITAL TORQUE TESTERS

ATTENTION: NOT SUITABLE FOR ELECTRIC WRENCHES, IMPACT WRENCHES OR PNEUMATIC WRENCHES



IST-04TT350

- Test torque wrenches, torque screwdrivers and other torque tools
- Clockwise operation
- Peak, track and first peak working modes
- Tolerance testing
- LED indicator for the target torque alarm:
 - Green LED light on when the value is within tolerance
 - Red LED light on when the value is above the high tolerance
- Power off automatically in 2 minutes without any operations

SPECIFICATION

Part No.	IST-04TT5	IST-04TT28	IST-04TT68	IST-04TT350
Range	4.42~44.2in.lb 0.369~3.69ft.lb	24.8~247.8in.lb 2.06~20.65ft.lb	60.2~602in.lb 5.01~50.1ft.lb	310~3097in.lb 25.8~258.1ft.lb
Accuracy	±1% (clockwise)			
Resolution	0.01in.lb 0.001ft.lb	0.1in.lb 0.01ft.lb	0.1in.lb 0.01ft.lb	1in.lb 0.1ft.lb
Unit	in.lb, ft.lb, kg.cm, N.m			
Square socket/hex driver	1/4"	3/8"	3/8"	1/2"
Adaptor	no	3/8" to 1/4"	3/8" to 1/4"	1/2" to 3/8" 3/8" to 1/4"
Power supply	DC			
Weight	1.65lb	1.65lb	2.43lb	2.43lb



STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Adaptor	refer to details

DIGITAL TORQUE WRENCHES

OPTIONAL ACCURACY:
CLOCKWISE: ±1%
COUNTER-CLOCKWISE: ±2%
ONLY FOR RANGE FOR 53.1~7521in.lb



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 damp record
- With overload record (once the torque reaches 110% of the maximum range)

SPECIFICATION

Part No.	Type	Range	Accuracy	Resolution	Square driver (L)	Power supply	Length	Weight
IST-W30A	A	53.1~265.5in.lb 4.42~22.12ft.lb	clockwise: ±2% counter-clockwise: ±3%	0.1in.lb 0.01ft.lb	1/4"	2×AA batteries	15.35"	1.83lb
IST-W135A		239~1195in.lb 19.9~99.5ft.lb		1in.lb 0.1ft.lb	3/8"		16.34"	2.09lb
IST-W200A		354~1770in.lb 29.5~147.5ft.lb		1in.lb 0.1ft.lb	1/2"		20.87"	3.09lb
IST-W340A		602~3009in.lb 50.1~250.7ft.lb		1in.lb 0.1ft.lb	1/2"		25.59"	3.53lb
IST-W500A*	B	885~4424in.lb 73.7~368.7ft.lb	clockwise: ±2.5% counter-clockwise: ±3.5%	1in.lb 0.1ft.lb	3/4"		50.59"	15.43lb

*The accuracy of this part no. is not optional

OPTIONAL ACCESSORY

Calibration cable	IST-W-CABLE
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BLUETOOTH DIGITAL TORQUE WRENCHES (KEYBOARD SIGNAL)

BUILT-IN BLUETOOTH

OPTIONAL ACCURACY:
CLOCKWISE: ±1%
COUNTER-CLOCKWISE: ±2%

INSPECTION
CERTIFICATE



Torque wrenches:

- Unit: in.lb, ft.lb, N.m, 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: LED lights up in sequence, and the buzzer gets louder and louder when torque value is 80%~99.5% of target torque
- Power off in 2 minutes automatically
- Non-slip grip handle
- With overload record (once the torque reaches 110% of the maximum range)



IST-15W135A

Data transmission:

- Built-in Bluetooth 4.0 module, which can be connected with computers (with Bluetooth function), mobile phones, tablets and other devices
- Keyboard signal, can be transmitted to Excel, Word, TXT
- Transmission distance is 32.8 feet (no obstacles, no electromagnetic interference)
- Bluetooth connection and disconnection are respectively shown by indicator lights

SPECIFICATION

Part No.	IST-15W30A	IST-15W135A	IST-15W200A	IST-15W340A
Range	53~265.5in.lb	239~1195in.lb	354~1770in.lb	602~3009in.lb
	4.4~22.12ft.lb	19.9~99.5ft.lb	29.5~147.5ft.lb	50.1~250.7ft.lb
Accuracy	clockwise	±2%		
	counter-clockwise	±3%		
Tolerance setting range	-20%~+20% (target torque value)			
Resolution	0.1in.lb	1in.lb	1in.lb	1in.lb
	0.01ft.lb	0.1ft.lb	0.1ft.lb	0.1ft.lb
Square driver (L)	1/4"	3/8"	1/2"	1/2"
Power supply	2xAAA batteries			
Length	15.35"	16.34"	20.87"	25.59"
Weight	1.68lb	2.07lb	2.95lb	3.40lb



transmission distance is 32.8 feet
(no obstacles, no electromagnetic interference)

OPTIONAL ACCESSORY

Calibration cable	IST-SD-CABLE
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MECHANICAL TORQUE WRENCHES (DIGITAL SETTING)

ATTENTION: DISPLAY PRE-SET TORQUE VALUE (NOT REAL TIME TORQUE)

ATTENTION: CLOCKWISE OPERATION ONLY

INSPECTION
CERTIFICATE

- Unit: ft.lb, in.lb, N.m
- Mechanical "click" torque wrench, the pre-set torque value is shown on the display



IST-20WM80

SPECIFICATION

Part No.	IST-20WM80	IST-20WM150	IST-20WM250
Range (clockwise)	16~80ft.lb	30~150ft.lb	50~250ft.lb
Accuracy	±3%	±3%	±3%
Resolution	0.1ft.lb	0.1ft.lb	0.1ft.lb
Square driver (D)	3/8"	1/2"	1/2"
Length	17.91"	20.55"	20.03"
Weight	3.20lb	3.53lb	3.97lb

TORQUE WRENCHES

ATTENTION: CLOCKWISE OPERATION ONLY



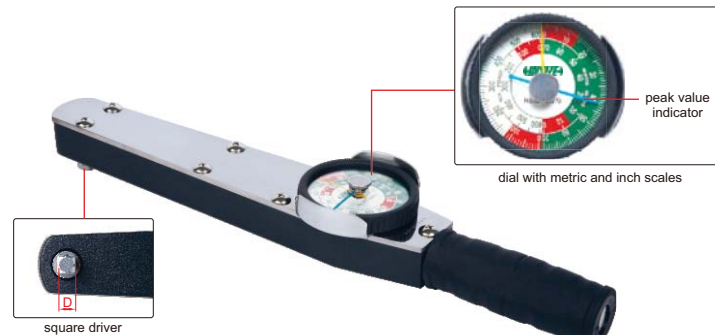
IST-10WM200

- According to DIN ISO 6789, ASME B107.300-2010
- All-metal construction, sturdy and durable

SPECIFICATION

Part No.	IST-10WM200	IST-10WM250	IST-10WM100	IST-10WM150	IST-10WM250A	IST-10WM600
Range (clockwise)	40~200lb.in	50~250lb.in	20~100lb.ft	30~150lb.ft	50~250lb.ft	100~600lb.ft
Accuracy	±6% (<89lb.in) ±4% (≥89lb.in)	±6% (<89lb.in) ±4% (≥89lb.in)	±4%	±4%	±4%	±4%
Graduation	1lb.in	1lb.in	0.5lb.ft	1lb.ft	1lb.ft	2.5lb.ft
Square driver (D)	1/4"	3/8"	3/8"	1/2"	1/2"	3/4"
Length	11.02"	12.40"	16.73"	19.88"	20.67"	41.54"
Weight	1.50lb	1.81lb	2.29lb	2.56lb	2.87lb	13.01lb

DIAL TORQUE WRENCHES



IST-DW70

- Clockwise and counter-clockwise operation
- According to DIN ISO 6789, ASME B107.300

SPECIFICATION

Part No.	IST-DW3D5	IST-DW9	IST-DW18	IST-DW35	IST-DW70	IST-DW140	IST-DW240	IST-DW350
Range	0.7~3.5N.m 6~30in.lb	1.8~9N.m 15~75in.lb	3.6~18N.m 30~150in.lb	7~35N.m 60~300in.lb	14~70N.m 120~600in.lb	28~140N.m 20~100ft.lb	48~240N.m 35~175ft.lb	70~350N.m 50~250ft.lb
Accuracy	±3%	±3%	±3%	±3%	±3%	±3%	±3%	±3%
Graduation	0.05N.m 0.5in.lb	0.1N.m 1in.lb	0.2N.m 2in.lb	0.5N.m 5in.lb	1N.m 10in.lb	2N.m 1ft.lb	3N.m 2.5ft.lb	2.5N.m 2.5ft.lb
Square driver (D)	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
Length	10"	10"	10"	10"	14.88"	21.5"	21.5"	21.5"
Weight	1.06lb	1.06lb	1.06lb	1.06lb	1.82lb	2.89lb	2.89lb	2.89lb

ELECTRONIC BALANCES

DATA OUTPUT



8310-320A

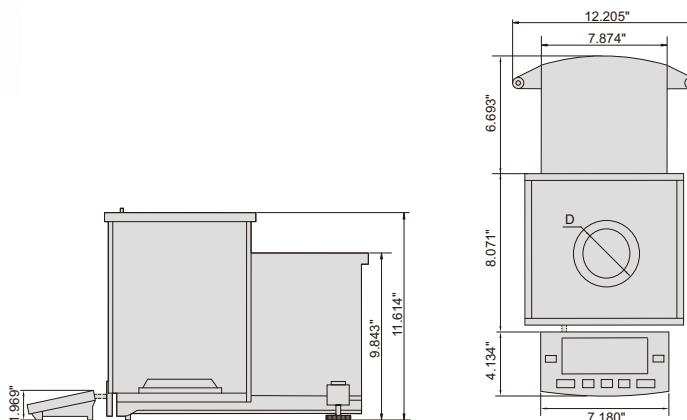


calibration weight
(included in 8310-120M,
8310-210M and 8310-320M)



printer (optional)

- Rear electromagnetic sensor
- Separated display unit and weighing unit, reduce vibration error
- Digital processing technology improves reading stability and response speed for micro sample addition, sample weight and balance reading is consistent
- Unit: g, oz, ct, lb
- Weighing, counting, taring, percentage
- Data output



SPECIFICATION

Part No.	8310-120M	8310-210M	8310-320M	8310-120A	8310-210A	8310-320A
Calibration	external calibration			internal calibration		
Maximum weighing	.246554lb/120g	.462970lb/210g	.705479lb/320g	.246554lb/120g	.462970lb/210g	.705479lb/320g
Minimum weighing	.000022lb/10mg	.000022lb/10mg	.000022lb/10mg	.000022lb/10mg	.000022lb/10mg	.000022lb/10mg
Resolution (d)	.000001lb/0.1mg	.000001lb/0.1mg	.000001lb/0.1mg	.000001lb/0.1mg	.000001lb/0.1mg	.000001lb/0.1mg
Verification interval (e)	.00001lb/1mg	.00001lb/1mg	.00001lb/1mg	.00001lb/1mg	.00001lb/1mg	.00001lb/1mg
Accuracy (m is load)	m≤.110231lb: ±.0 00001lb; .110231lb<m≤.440924lb: ±.000002lb; m>.440924lb: ±.000003lb			m≤.110231lb: ±.0 00001lb; .110231lb<m≤.440924lb: ±.000002lb; m>.440924lb: ±.000003lb		
Repeatability	±.000001lb					
Linearity	±.000001lb					
Stabilization time	2.5s					
Weighing pan size (D)	3.543" DIA					
Output	RS232					
Operation temperature	50~86°F					
Operation humidity	20~85% RH					
Power supply	100-240V, 50/60Hz					
Dimension (L×W×H)	18.898×12.205×12.598"					
Weight	13.228lb					

OPTIONAL ACCESSORY

RS232 cable	8304-CABLE*
Printer	8303-PRINTER

*Used to connect with computers

ELECTRONIC BALANCES

DATA OUTPUT



calibration weight (included)

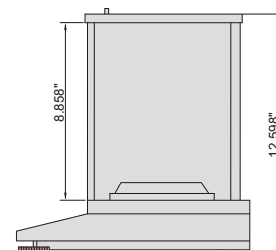
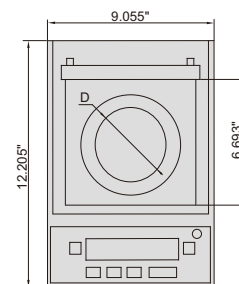


printer (optional)

- Electromagnetic sensor
- Unit: g, ct, oz, lb
- Weighing, counting, taring
- Data output



8304-120



SPECIFICATION

Part No.	8304-120	8304-220
Maximum weighing	.264554lb/120g	.485017lb/220g
Minimum weighing	.000022lb/10mg	.000022lb/10mg
Resolution (d)	.000001lb/0.1mg	.000001lb/0.1mg
Verification interval (e)	.000010lb/1.0mg	.000010lb/1.0mg
Accuracy (m is load)	m≤.110231lb: ±.000001lb; .110231lb<m≤.440924lb: ±.000002lb	m≤.110231lb: ±.000001lb; .110231lb<m≤.440924lb: ±.000002lb m>.440924lb: ±.000003lb
Weighing pan size (D)	3.543" DIA	
Operation temperature	50~86°F	
Operation humidity	20~85% RH	
Power supply	power adapter (12V/2A)	
Dimension (L×W×H)	9.055×12.205×12.598"	

OPTIONAL ACCESSORY

RS232 cable	8304-CABLE*
Printer	8303-PRINTER
Data output cable (keyboard format)	7302-8304

*Used to connect with computers

ELECTRONIC BALANCES

DATA OUTPUT

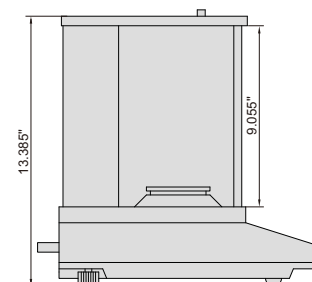
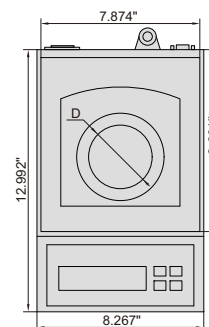
- Aluminum alloy shell, wind shield, three side glass sliding doors
- Electromagnetic balance sensor
- Unit: g, ct, ozt, oz, gn, dwt, mg
- Weighing, counting, taring
- Data output
- With a hook at the bottom



calibration weight (included)



8303-520U



SPECIFICATION

Part No.	8303-220U	8303-320U	8303-520U	8303-620U	8303-1020U
Maximum weighing	1100ct	1600ct	2600ct	3100ct	5100ct
Minimum weighing	.1ct	.1ct	.1ct	.1ct	.1ct
Resolution (d)	.005ct	.005ct	.005ct	.005ct	.005ct
Verification interval (e)	.05ct	.05ct	.05ct	.05ct	.05ct
Accuracy	load capacity≤2500ct: ±.025ct; load capacity>2500ct: ±.05ct				
Weighing pan size (D)	3.150" DIA			4.724" DIA	
Operation temperature	59~86°F		64.4~73.4°F		
Operation humidity	40%~80% RH		50%~70% RH		
Power supply	110V, 50/60Hz				
Dimension (L×W×H)	12.992×8.267×13.385"				

OPTIONAL ACCESSORY

RS232 cable	8301-CABLE*
Printer	8303-PRINTER

*Used to connect with computers

ELECTRONIC BALANCES

DATA OUTPUT

- LCD with back light
- Unit: g, ct, ozt, oz, GN, dwt, lb, kg
- Weighing, counting, taring

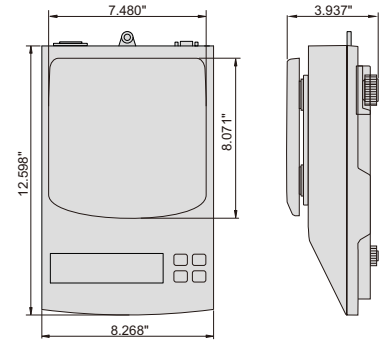
OPTIONAL ACCESSORY

RS232 cable	8301-CABLE*
Printer	8303-PRINTER

*Used to connect with computers



8305-5000-U



SPECIFICATION

Part No.	8305-2000-U	8305-3000-U	8305-5000-U	8305-6000-U
Maximum weighing	4.4lb/2kg	6.6lb/3kg	11.0lb/5kg	13.2lb/6kg
Minimum weighing	.0005lb/0.2g	.0005lb/0.2g	.0005lb/0.2g	.0005lb/0.2g
Resolution (d)	.0002lb/0.01g	.0002lb/0.01g	.0002lb/0.01g	.0002lb/0.01g
Verification interval (e)	.0002lb/0.1g	.0002lb/0.1g	.0002lb/0.1g	.0002lb/0.1g
Accuracy (m is load)	m≤1.1lb: ±.0001lb 1.1lb<m≤4.4lb: ±.0002lb	m≤1.1lb: ±.0001lb 1.1lb<m≤4.4lb: ±.0002lb m>4.4lb: ±.0003lb	m≤1.1lb: ±.0001lb 1.1lb<m≤4.4lb: ±.0002lb m>4.4lb: ±.0003lb	m≤1.1lb: ±.0001lb 1.1lb<m≤4.4lb: ±.0002lb m>4.4lb: ±.0003lb
Weighing pan size	7.48×8.07"			
Output	RS232			
Operation temperature	32~104°F			
Operation humidity	≤80% RH			
Power supply	110V/60Hz			
Dimension (L×W×H)	12.598×8.268×3.937"			



printer (optional)



calibration weight
(included in 8305-2000-U and 8305-3000-U)

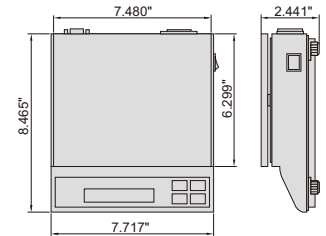
ELECTRONIC BALANCES

DATA OUTPUT

- Automatic zero when power on
- Unit: g (gram), ct (carat), ozt (troy ounce)
- Weighing, counting, taring
- Overload alarm
- Data output



8301-3000U



SPECIFICATION

Part No.	8301-300U	8301-600U	8301-1200U	8301-3000U	8301-6000U
Maximum weighing	1500ct/9.6000ozt	3000ct/19.2000ozt	6000ct/38.5000ozt	15000ct/96.400ozt	30000ct/192.900ozt
Minimum weighing	1ct/.0064ozt	1ct/.0064ozt	1ct/.0064ozt	10ct/.064ozt	10ct/.064ozt
Resolution (d)	.05ct/.0001ozt	.05ct/.0001ozt	.05ct/.0001ozt	.5ct/.001ozt	.5ct/.001ozt
Verification interval (e)	.5ct/.001ozt	.5ct/.001ozt	.5ct/.001ozt	5ct/.01ozt	5ct/.01ozt
Accuracy (m is load)	m≤250ct/1.6075ozt: ±.25ct/.0016ozt; 250ct/1.6075ozt<m≤1000ct/32.1507ozt: ±.5ct/.0032ozt; m>1000ct/32.1507ozt: ±.75ct/.0048ozt			m≤2500ct/16.075ozt: ±2.5ct/.016ozt; 2500ct/16.075ozt<m≤10000ct/64.301ozt: 5ct/.032ozt; m>10000ct/64.301ozt: ±7.5ct/.048ozt	
Operation pan size	5.315" DIA			7.48×6.30"	
Operation temperature	32~104°F				
Operation humidity	≤80% RH				
Power supply	110V, 50/60Hz				
Dimension (L×W×H)	8.465×7.717×2.441"				



windshield
(included in 8301-300U, 8301-600U and 8301-1200U)



calibration weight
(included in 8301-300U, 8301-600U and 8301-1200U)

OPTIONAL ACCESSORY

RS232 cable	8301-CABLE
Data output cable (keyboard format)	7302-8001

WEIGHING SCALES (HIGH PRECISION)

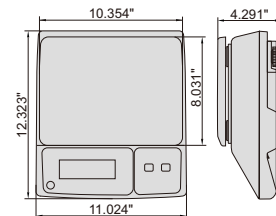
- LCD display, with backlight
- Zero-setting, subtracting tare value
- Overload alarm
- Automatic power off

SPECIFICATION

Part No.	8001-6	8001-15	8001-30
Maximum weighing	12lb/6kg	30lb/15kg	60lb/30kg
Minimum weighing	.0090lb/4g	.022lb/10g	.044lb/20g
Resolution (d)	.0005lb/0.2g	.001lb/0.5g	.002lb/1g
Accuracy (m is load)	m≤2.2lb: ±.0025lb 2.2lb<m≤8.8lb: ±.0005lb m>8.8lb: ±.0075lb	m≤5.5lb: ±.005lb 5.5lb<m≤22.0lb: ±.01lb m>22.0lb: ±.015lb	m≤11.0lb: ±.01lb 11.0lb<m≤44.0lb: ±.02lb m>44.0lb: ±.03lb
Units	lb, kg		
Operation temperature	14~104°F		
Power	rechargeable battery (6V/3.2Ah), power adapter (12V/500mA)		
Dimensions of pan	10.354×8.031"		



8001-30



COUNTING SCALES

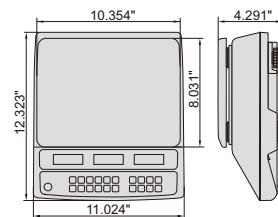
- LCD display, with backlight
- Zero-setting, subtracting tare value, counting, accumulation, checking alarm
- Overload alarm
- Units: lb, lb-oz, kg, g, tj, hj

SPECIFICATION

Part No.	8101-6	8101-15	8101-30
Maximum weighing	12lb/6kg	30lb/15kg	60lb/30kg
Minimum weighing	.0090lb/4g	.022lb/10g	.044lb/20g
Resolution (d)	.0005lb/0.2g	.001lb/0.5g	.002lb/1g
Accuracy (m is load)	m≤2.2lb: ±.0025lb 2.2lb<m≤8.8lb: ±.0005lb m>8.8lb: ±.0075lb	m≤5.5lb: ±.005lb 5.5lb<m≤22.0lb: ±.01lb m>22.0lb: ±.015lb	m≤11.0lb: ±.01lb 11.0lb<m≤44.0lb: ±.02lb m>44.0lb: ±.03lb
Operation temperature	14~104°F		
Power	rechargeable battery (6V/3.2Ah), power adapter (12V/500mA)		
Dimensions of pan	10.354×8.031"		



8101-30



ELECTRONIC POCKET SCALE (ECONOMIC TYPE)

- LCD display, with backlight
- Zero-setting, subtracting tare value, counting
- Overload alarm
- Automatic power off

SPECIFICATION

Part No.	8601-100
Maximum weighing	3.5oz
Minimum weighing	0.005oz
Resolution (d)	0.0005oz
Accuracy (m is load)	0.005oz≤m≤0.05oz: ±0.0015oz; 0.05oz<m≤1.5oz: ±0.0025oz 1.5oz<m≤2.5oz: ±0.0035oz; m>1.5oz: ±0.007oz
Units	oz, g, dwt, ozt
Dimension of pan	2.165×2.520"
Dimension (L×W×H)	4.252×2.559×0.827"
Operation temperature	14~104°F
Power supply	2×AAA batteries

ATTENTION:
LOW ACCURACY



8601-100



use of pan

ELECTRONIC POCKET SCALE (ECONOMIC TYPE)

**ATTENTION:
LOW ACCURACY**

- LCD display, with backlight
- Zero-setting, subtracting tare value, counting
- Overload alarm
- Automatic power off

SPECIFICATION

Part No.	8602-200
Maximum weighing	7oz
Minimum weighing	0.01oz
Resolution (d)	0.001oz
Accuracy (m is load)	0.01oz≤m≤0.1oz: ±0.003oz; 0.1oz<m≤3oz: ±0.005oz 3oz<m≤5oz: ±0.007oz; m>5oz: ±0.014oz
Units	oz, g, dwt, ozt
Dimension of pan	2.165×2.520"
Dimension (L×W×H)	4.724×2.756×0.669"
Operation temperature	14~104°F
Power supply	2×CR2032 batteries



8602-200



use of pan

WEIGHING SCALES (ECONOMIC TYPE)

- Unit: lb, oz, g, tl

SPECIFICATION

Part No.	8003-3	8003-6	8003-10
Maximum weighing	6.61lb	13.23lb	22.05lb
Minimum weighing	0.02lb	0.02lb	0.04lb
Resolution (d)	0.001lb	0.001lb	0.002lb
Accuracy	±0.003lb	±0.006lb	±0.010lb
Weighing pan size	6.18×6.18"		
Working temperature	41~95°F		
Power supply	2×AAA batteries, power adapter		
Dimension (L×W)	6.30×8.86"		



8003-3

PLATFORM SCALES

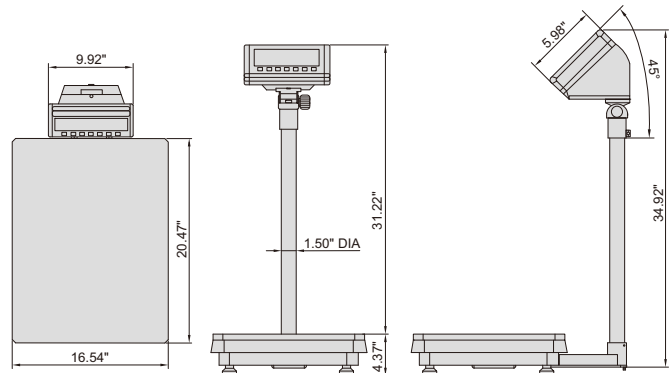
DATA
OUTPUT



printer (optional)



8501-AL150



SPECIFICATION

Part No.	8501-AL60	8501-AL150	8501-AL300
Maximum weighing	130lb	330lb	660lb
Minimum weighing	.20lb	.40lb	.80lb
Resolution (d)	.01lb	.02lb	.04lb
Accuracy	±0.02lb	±0.04lb	±0.06lb
Operation temperature	14~104°F		
Material	platform: stainless steel, base: die-cast aluminum		
Dimension of platform	16.54×20.47"		
Power	rechargeable lead acid battery (6V/4Ah)		
Output	RS232		
Weight	40.34lb		

- LCD large screen display with LED backlight
- Weighing, overweight alarm, counting, keyboard lock, accumulating, auto zero and animal scale
- Units: kg, g, lb, oz

OPTIONAL ACCESSORY

Printer	8001-PRINTER
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ELECTRONIC CRANE SCALES

IP65
WATERPROOF

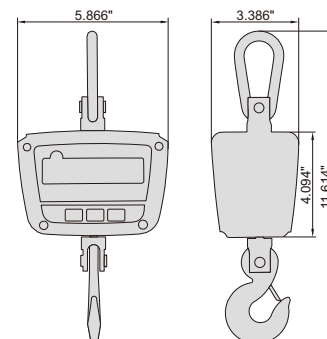
- Dust/waterproof level: IP65
- LED display, remote control
- Low voltage indicator
- Unit: lb, kg
- Automatic power off
- Overload alarm
- 360° safe rotary hook and shackle
- Aluminum alloy die casting case with high strength



Remote controller (included)



8201-150KG



SPECIFICATION

Part No.	8201-50KG	8201-150KG	8201-300KG
Maximum weighing	10lb	330lb	660lb
Minimum weighing	1lb	2lb	4lb
Resolution (d)	.05lb/.02lb	.10lb/.05lb	.20lb/.10lb
Verification interval (e)	.05lb	.10lb	.20lb
Accuracy	±.05lb	±.10lb	±.20lb
Operation temperature	14~104°F		
Operation humidity	30%~90% RH		
Overload alarm	100%F.S.+9e		
Maximum safe load	125%F.S.		
Limited overload	400%F.S.		
Power supply	rechargeable battery 6V/3Ah (for 40 hours working)		
Stable reading time	≤8s		

STANDARD DELIVERY

Main unit	1 pc
Remote controller	1 pc
Battery charger	1 pc

WEIGHT SETS



8910-200GF1

- Supplied with manufacturer inspection certificate

CLASS AND MATERIAL

Specification	Part No.				
	E2 (non-magnetic stainless steel)	F1 (non-magnetic stainless steel)	F1 (304 stainless steel)	F2 (304 stainless steel)	M1 (304 stainless steel)
1mg~100g	8910-100GE2	8910-100GF1	8910-100GF1S	8910-100GF2	8910-100GM1
1mg~200g	8910-200GE2	8910-200GF1	8910-200GF1S	8910-200GF2	8910-200GM1
1mg~1kg	8910-1KGE2	8910-1KGF1	8910-1KGF1S	8910-1KGF2	8910-1KGM1
1mg~2kg	8910-2KGE2	8910-2KGF1	8910-2KGF1S	8910-2KGF2	8910-2KGM1
1mg~5kg	8910-5KGE2	8910-5KGF1	8910-5KGF1S	8910-5KGF2	8910-5KGM1

SPECIFICATION AND SHAPE

Weight	Specification				
	1mg~100g	1mg~200g	1mg~1kg	1mg~2kg	1mg~5kg
1mg	●	●	●	●	●
2mg	● ●*	● ●*	● ●*	● ●*	● ●*
5mg	●	●	●	●	●
10mg	●	●	●	●	●
20mg	● ●*	● ●*	● ●*	● ●*	● ●*
50mg	●	●	●	●	●
100mg	●	●	●	●	●
200mg	● ●*	● ●*	● ●*	● ●*	● ●*
500mg	●	●	●	●	●
1g	■	■	■	■	■
2g	■ ■*	■ ■*	■ ■*	■ ■*	■ ■*
5g	■	■	■	■	■
10g	■	■	■	■	■
20g	■ ■*	■ ■*	■ ■*	■ ■*	■ ■*
50g	■	■	■	■	■
100g	■	■	■	■	■
200g		■ ■*	■ ■*	■ ■*	■ ■*
500g			■	■	■
1kg			■	■	■
2kg				■ ■*	■ ■*
5kg					■
Quantity	21 pcs	23 pcs	25 pcs	27 pcs	28 pcs
Total range	1mg~211.11g	1mg~611.11g	1mg~2111.11g	1mg~6111.11g	1mg~11111.11g

- sheet
- cylinder
- * sheet, with mark
- * cylinder, with mark

INSIZE is a world leader in metric and offering 4,000 SKU's. These popular items are stocked or available generally in 7 days. On these pages you will find some very popular metric tools, but for the full offering visit our metric site www.insize.com or request a metric catalog from sales@insizeus.com

DIAL CALIPERS



Dial indicator graduation 0.02mm (mm)

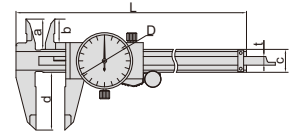
Part No.	Range	Accuracy	L	a	b	c	d	D	t
1312-150A*	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39	6.5
1312-200A*	0-200mm	±0.03mm	288	24	19	16	48	Ø39	6.5
1312-300A*	0-300mm	±0.03mm	410	28	22	20	62	Ø44.5	7.5



1312-150A

Dial indicator graduation 0.01mm (mm)

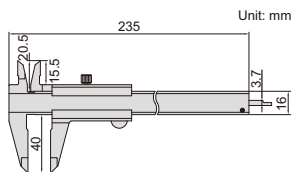
Part No.	Range	Accuracy	L	a	b	c	d	D	t
1311-150A*	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39	6.5
1311-200A*	0-200mm	±0.03mm	288	24	19	16	48	Ø39	6.5
1311-300A*	0-300mm	±0.03mm	410	28	22	20	62	Ø44.5	7.5



- Shockproof dial indicator
- Made of stainless steel

*Supplied with manufacturer inspection certificate

VERNIER CALIPERS



1205-150S

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

Part No.	Range	Accuracy	Graduation
1205-150S	0-150mm/0-6"	±0.05mm	0.05mm/1/128"
1205-1502S	0-150mm/0-6"	±0.03mm	0.02mm/0.001"

OUTSIDE MICROMETERS



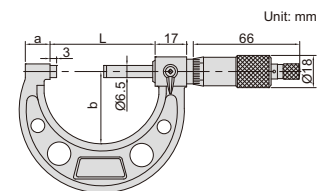
- Graduation: 0.01mm
- Carbide measuring faces
- Ratchet stop
- Meet DIN863-1
- Supplied with setting standards (except 0-25mm)



3203-25A



3203-50A



Individual (mm)

Part No.	Range	Accuracy	L	a	b
3203-25A*	0-25mm	±2µm	32	9	28
3203-50A*	25-50mm	±2µm	57	14	38
3203-75A*	50-75mm	±2µm	82	15	49
3203-100A*	75-100mm	±3µm	107	15	60
3203-125A	100-125mm	±3µm	133	16.5	73
3203-150A	125-150mm	±3µm	158	16.5	85

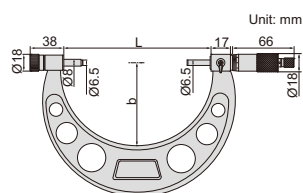
Set

Part No.	Range	Micrometers included	Packaging
3203-753A*	0-75mm	3203-25A, 3203-50A, 3203-75A	blow mould case
3203-1506A	0-150mm	3203-25A, 3203-50A, 3203-75A, 3203-100A, 3203-125A, 3203-150A	blow mould case

*Supplied with manufacturer inspection certificate

OUTSIDE MICROMETERS WITH INTERCHANGEABLE ANVILS

- Graduation: 0.01mm
- Ratchet stop
- Meet DIN863-3
- Carbide measuring faces
- Supplied with setting standards

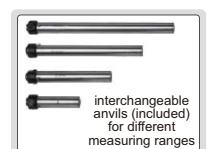


(mm)

Part No.	Range	Accuracy	L	b	Setting standard (included)
3206-150A	0-150mm	6µm	158mm	82mm	25, 50, 75, 100, 125
3206-300A	150-300mm	9µm	308mm	165mm	150, 175, 200, 225, 250, 275



3206-150A



BORE GAGES

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

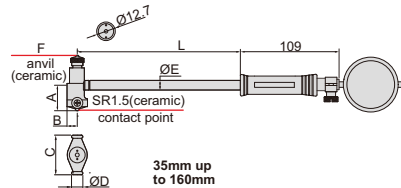
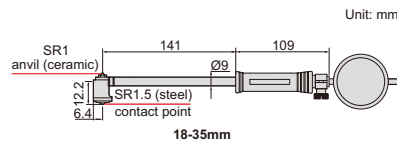


- Optional accessory: setting ring (part no. 6312), long handle (part no. 7351), bore gage setter

Range	A	B	C	ØD	ØE	F	L
35-60mm	22	9	27	13	12.8	SR2	141
50-160mm	26	9	35	13	12.8	SR2	141

With dial indicator

Part No.	Range	Indicator	Accuracy	Repeatability
2322-35A	18-35mm	dial indicator, range 10mm, graduation 0.01mm (part no. 2308-10FA)	±0.015mm	0.003mm
2322-60A	35-60mm		±0.018mm	0.003mm
2322-160A	50-160mm		±0.018mm	0.003mm

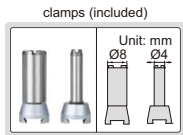


2322-35A

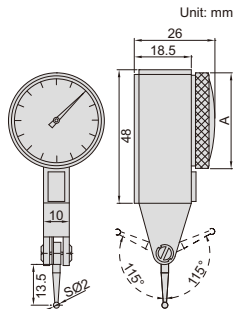
DIAL TEST INDICATORS



JEWELLED BEARING



2380-08



- Graduation: 0.01mm
- Meet DIN2270
- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

Part No.	Range	Accuracy	Hysteresis	Dial reading	A
2380-08*	0.8mm	13µm	3µm	0-40-0	Ø30
2381-08*	0.8mm	13µm	3µm	0-40-0	Ø37

* Supplied with manufacturer inspection certificate

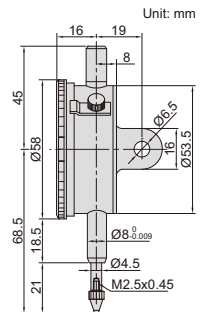
DIAL INDICATORS (STANDARD TYPE)



JEWELLED BEARING



2308-10A



- Graduation: 0.01mm
- Hysteresis: 3µm
- Dial reading: 0-100
- Meet DIN878
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

Part No.	Range	Accuracy	Range/rev	Remark
2308-10A*	10mm	17µm	1mm	lug back
2308-10FA*	10mm	17µm	1mm	flat back

* Supplied with manufacturer inspection certificate

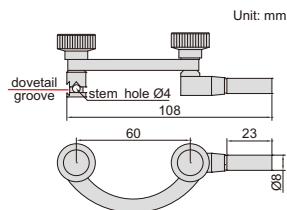
DIAL TEST INDICATOR HOLDER



6291-1

- Can be used with dial test indicators

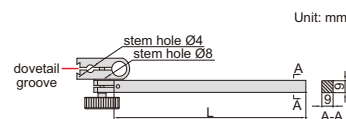
Part No.
6291-1



DIAL TEST INDICATOR HOLDER



6293-1



Part No.	Stem section	Stem length (L)
6293-1	9x9mm	100mm



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Certification Number C1009-47588-322		Procedures Followed FVR-012 rev. 0		This certificate shall not be altered in any form or reproduced, except in full, without prior written approval from originating lab. These results relate only to the item(s) calibrated. Form Revision 6: 02/04/2012																									
For INSIZE USA 2230 Commerce Drive Loganville, GA 30052		Standards Used		<table border="1"> <thead> <tr> <th>Instrument</th> <th>Serial Number</th> <th>Trace Number</th> <th>Next Cal</th> </tr> </thead> <tbody> <tr> <td>FVR-005</td> <td>N/A</td> <td>CE296-30320-343</td> <td>12/28/2018</td> </tr> <tr> <td>FVR-075</td> <td>N/A</td> <td>CH127-38294-343</td> <td>05/28/2019</td> </tr> <tr> <td>FVR-096</td> <td>N/A</td> <td>CH043-42961-328</td> <td>10/08/2018</td> </tr> <tr> <td>FVR-119</td> <td>12072011</td> <td>CH041-47026-397</td> <td>08/28/2018</td> </tr> <tr> <td>FVR-120</td> <td>8PCS-120013</td> <td>CF336-39069-405</td> <td>01/28/2018</td> </tr> </tbody> </table>		Instrument	Serial Number	Trace Number	Next Cal	FVR-005	N/A	CE296-30320-343	12/28/2018	FVR-075	N/A	CH127-38294-343	05/28/2019	FVR-096	N/A	CH043-42961-328	10/08/2018	FVR-119	12072011	CH041-47026-397	08/28/2018	FVR-120	8PCS-120013	CF336-39069-405	01/28/2018
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FVR-120	8PCS-120013	CF336-39069-405	01/28/2018																										
Purchase Order # 4000620	Test Instrument Digital Calipers	<p>Total expanded measurement uncertainties expressed are based on a confidence level of 95%, coverage factor of k=2. The statement of compliance in this certificate was issued without taking the uncertainty of measurement into consideration. The customer shall assess the results and uncertainty when determining if the results meet their needs. (This is considered "shared responsibility.") Uncertainties expressed in nominal units.</p> <p>All instruments have been calibrated against standards traceable to NIST. Calibration was completed in accordance with ISO/IEC 17025:2005 and ANSI Z540.1-1994.</p>																											
Make INSIZE	Model 1108-300																												
Serial Number 1509171203	Identification 1509171203																												
Customer Location																													
Condition Received In Tolerance	Condition Returned In Tolerance																												
Calibrated By Andrew Drager	Form Reviewed By M.T.																												
Calibration Location FVM	Calibration Conditions 71.7°F, 28.7%RH																												
Calibration Date 01/09/2018	Recalibration Due																												

Calibration Results

* - denotes "Out of Tolerance"

Feature	Nominal	Lower Limit	Upper Limit	As Found	As Left	Uncertainty
OD Jaws	(in)	(in)	(in)	(in)	(in)	(in)
	0.3700	0.3690	0.3710	0.3700	0.3700	0.00039
	1.0000	0.9990	1.0010	1.0000	1.0000	0.00041
	1.6000	1.5990	1.6010	1.6000	1.6000	0.00042
	3.7500	3.7490	3.7510	3.7500	3.7500	0.00044
ID Jaws	(in)	(in)	(in)	(in)	(in)	(in)
	1.4000	1.3990	1.4010	1.4000	1.4000	0.00040
	2.0000	1.9990	2.0010	2.0000	2.0000	0.00042
Step	(in)	(in)	(in)	(in)	(in)	(in)
	1.0000	0.9990	1.0010	1.0005	1.0005	0.00041
Depth	(in)	(in)	(in)	(in)	(in)	(in)
	1.0000	0.9990	1.0010	1.0005	1.0005	0.00041

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1108-200CAL	0-8"/0-200mm Digital Caliper
1108-300CAL	0-12"/0-300mm Digital Caliper
1311-6CAL	0-6" Dial Caliper
1311-8CAL	0-8" Dial Caliper
1311-12CAL	0-12" Dial Caliper
2307-1CAL	0-1" Dial Indicator

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