19 ON-MACHINE MEASUREMENT

Video Measuring Instrument For Machine Tools
Page 475-476

Centering Indicators
Page 477-478

Edge Finders
Page 478-480

Edge Finders For EDM
Page 481

3D Testers
Page 482-483

Trigger-Type 3D Probes
Page 484

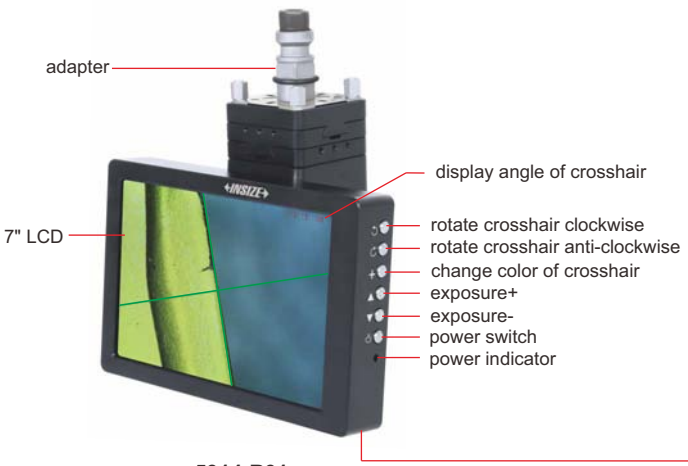
Infrared Transmission Probes For CNC Machine Tools
Page 485-488

Zero Setters With Cable
Page 489-491

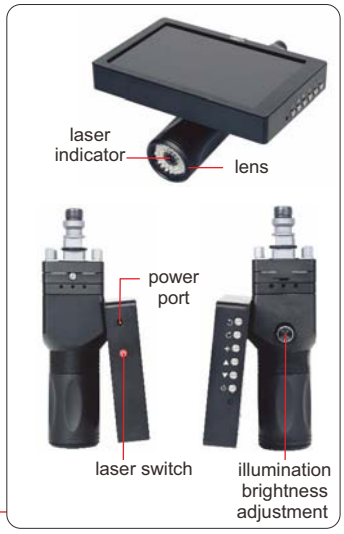
Zero Setters
Page 492

Zero Setters
Page 493-494

VIDEO MEASURING INSTRUMENT FOR MACHINE TOOLS

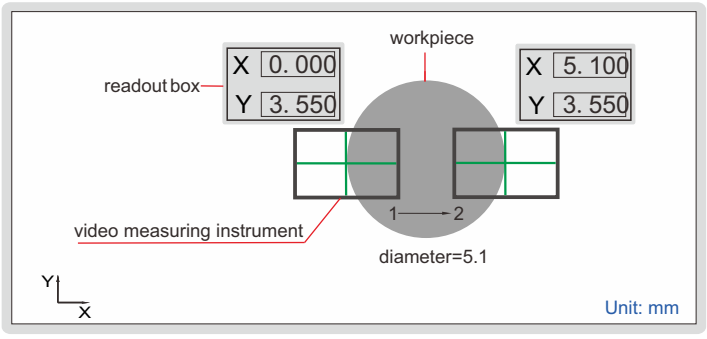


5314-R31

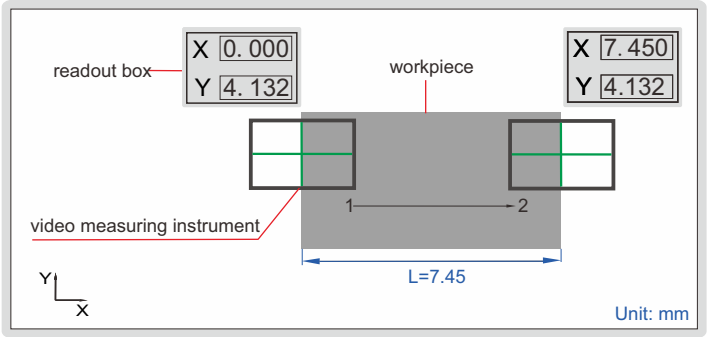


application

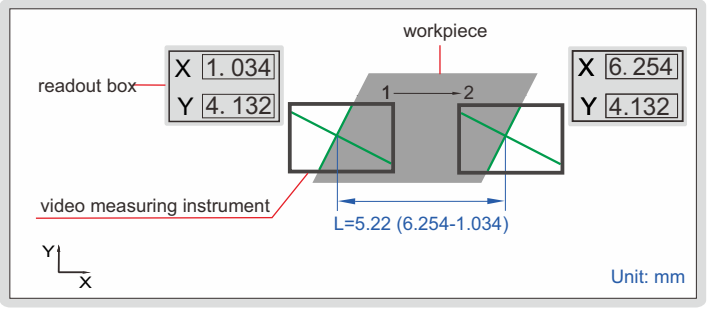
measure diameter



measure length



measure distance



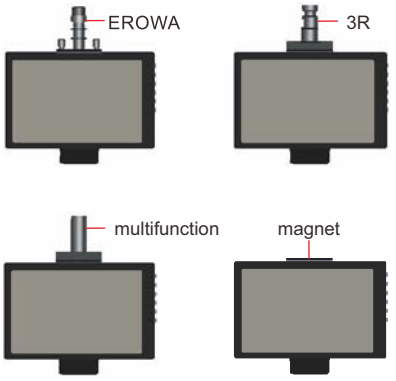
- Used in machine tools such as EDM and CNC
- Working together with linear scale and readout box of machine tools to make 2D measurement, especially suitable for small or thin parts
- Can rotate crosshair and change its color
- With laser indicator to locate position

To be continued

Continued from previous page

SPECIFICATION

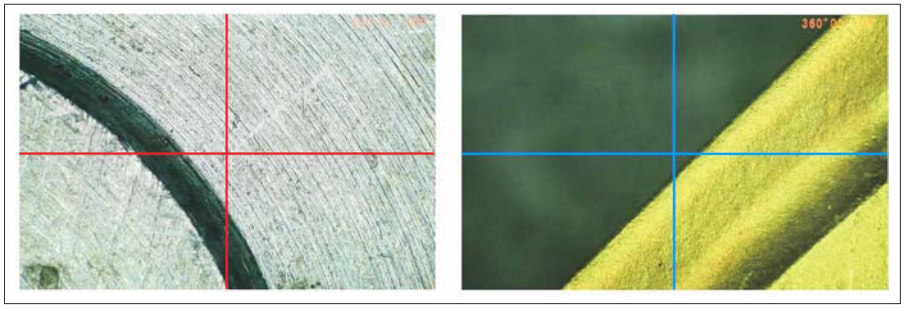
Code	5314-R31	5314-R32	5314-R33	5314-R34
Adapter	EROWA	3R	multifunction	magnet
Screen size/pixel	7"/1080P			
Visual accuracy	±0.003mm			
Magnification	50X			
Angle resolution	15'			
Automatic edge-find	after finding the edge, the crosshair changes to green color and prompts			
Color of crosshair	red, blue			
Rotation of crosshair	manual			
Focus distance	50mm			
Light source	LED (adjustable brightness)			
Lithium battery	4800mA (for 4 hours working)			
Power supply	power adapter			
Dimension (LxWxH)	178x90x215mm			
Weight	2kg			



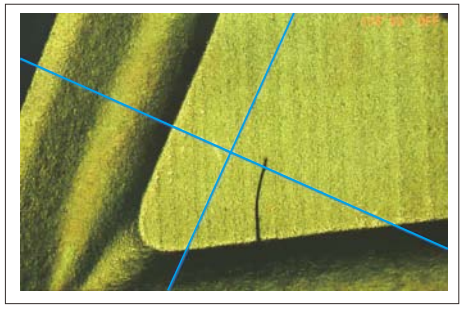
STANDARD DELIVERY

Main unit	1 pc
Power adapter	1 pc

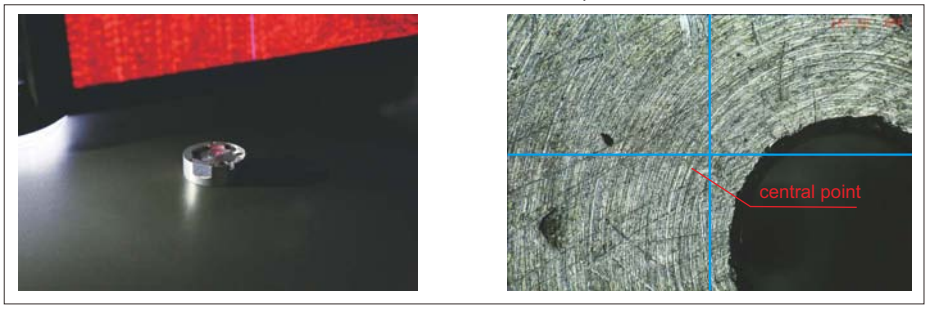
select crosshair color



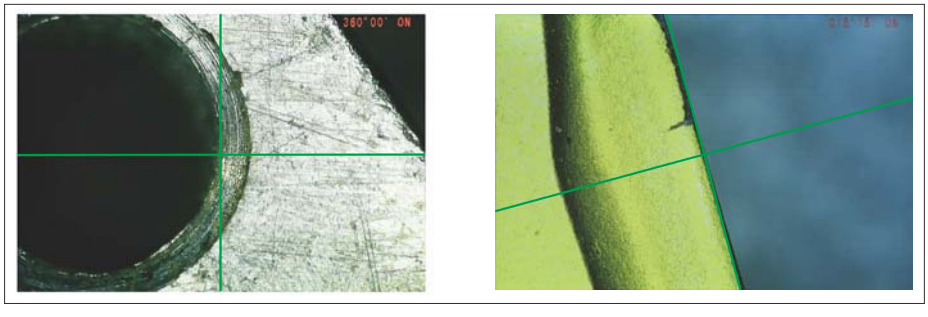
rotate crosshair



laser indicator locates the central point



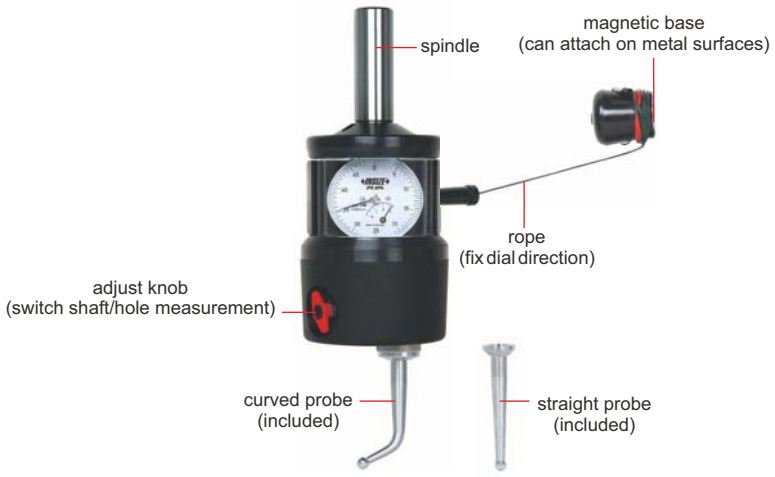
after finding the edge, the crosshair changes to green color and prompts



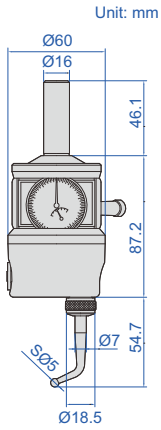
READING SHOWS MOVEMENT VALUE OF PROBE

CENTERING INDICATOR

INSIZE PLUS
MADE IN EUROPE

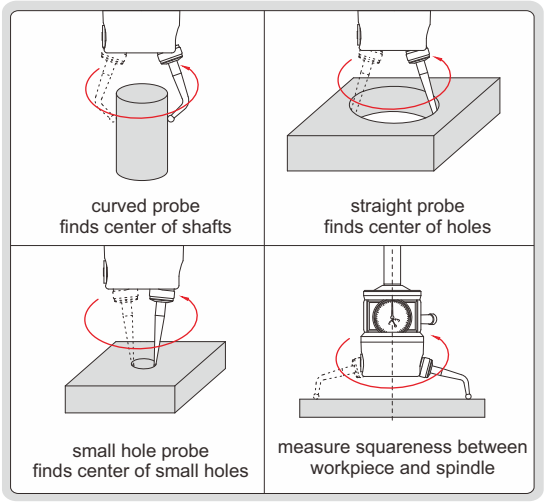


2847-3



VIDEO

application



- Provides quick and accurate shaft/hole centering in boring and milling set-up, can also measure squareness between workpiece and spindle
- Dial indicator can rotate 360°
- Reading show movement value of probe, for example, if probe moves 0.01mm, reading changes 0.01mm (2 graduations)
- Optional accessory: probes

Code	Graduation	Travel
2847-3	0.005mm	2.5mm

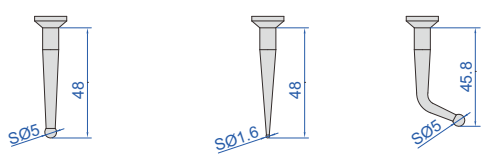
SPECIFICATION OF PROBE

Description	Measurement type	Diameter measurement	Depth measurement	Accuracy
straight probe (included)	hole center	Ø6-125mm	55mm	0.005mm
	squareness	Ø120-160mm	40mm	
small hole probe (**optional**)	small hole center	Ø2-125mm	55mm	0.005mm
	squareness	Ø120-160mm	40mm	
curved probe (included)	shaft center	Ø0-125mm	55mm	0.005mm
	squareness	Ø120-160mm	40mm	

PROBE (optional)

Code	Description
2847-P1	straight probe
2847-P2	small hole probe
2847-P3	curved probe

Unit: mm



2847-P1
straight probe

2847-P2
small hole probe

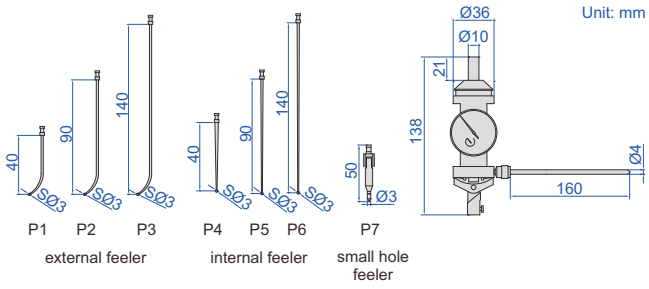
2847-P3
curved probe

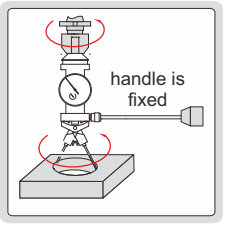
CENTERING INDICATOR

VIDEO

POPULAR MODEL

2385-3

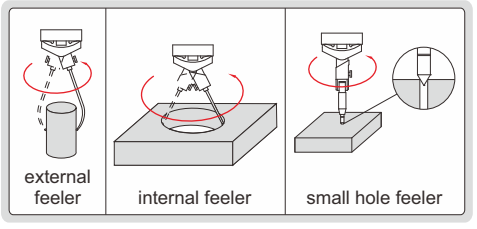




- Provides quick and accurate centering in boring and milling set-up
- Maximum speed is recommended not to exceed 800rpm

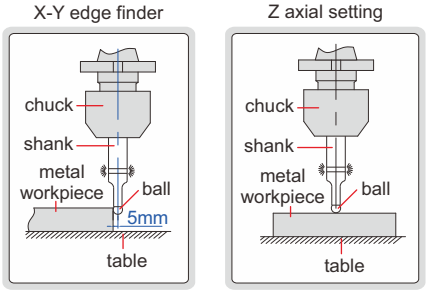
Code
2385-3

Feeler	Measuring diameter	Accuracy
P1	Ø0-60mm	0.015mm
P2	Ø0-160mm	0.02mm
P3	Ø0-250mm	0.03mm
P4	Ø3.2-80mm	0.015mm
P5	Ø3.2-180mm	0.02mm
P6	Ø3.2-280mm	0.03mm
P7	Ø0-2.8mm	0.015mm

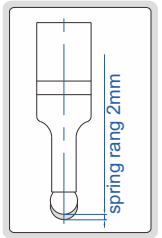


3D ELECTRONIC EDGE FINDERS

INSIZE PLUS
MADE IN EUROPE

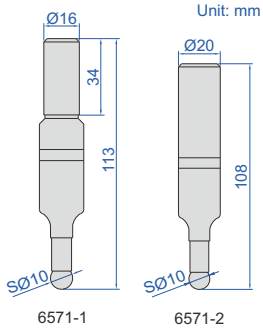


6571-1 6571-2



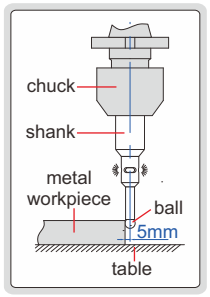
- The shank is electrically conducted to the metal workpiece through the chuck and table. The LED lights up, when the ball touches the workpiece
- Not suitable for rotary use
- Hardened contact ball

Code	Shank	Contact ball	Accuracy	Battery
6571-1	Ø16mm	SØ10mm	10μm	23A, 12Vx1 pc
6571-2	Ø20mm	SØ10mm	10μm	23A, 12Vx1 pc

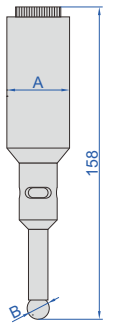


LARGE SHANK ELECTRONIC EDGE FINDERS

- The shank is electrically conducted to the metal workpiece through the chuck and table. The LED lights up and the beeper sounds (only for **6572-2**), when the ball touches the workpiece
- Not suitable for rotary use
- Hardened shank and contact ball

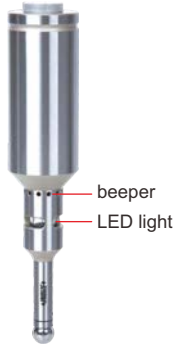


Unit: mm



Code	Shank (A)	Contact ball (B)	Accuracy	Beeper	Battery
6572-1	Ø32mm	SØ10mm	5μm	without	23A, 12V×1 pc
6572-2	Ø32mm	SØ10mm	5μm	with	23A, 12V×1 pc

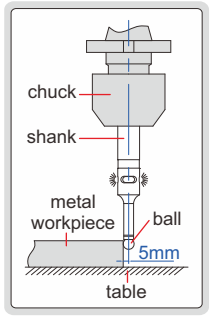
6572-1



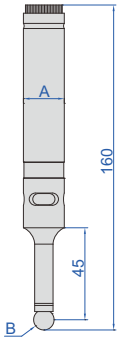
6572-2

ELECTRONIC EDGE FINDERS

- The shank is electrically conducted to the metal workpiece through the chuck and table. The LED lights up and the beeper sounds (only for **6566-3**), when the ball touches the workpiece
- Not suitable for rotary use
- Hardened shank and contact ball

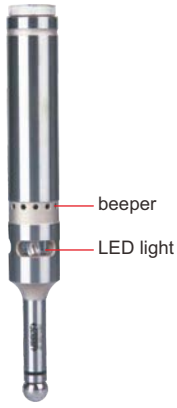


Unit: mm



Code	Shank (A)	Contact ball (B)	Accuracy	Beeper	Battery
6566-2	Ø20mm	SØ10mm	5μm	without	23A, 12Vx1 pc
6566-3	Ø20mm	SØ10mm	5μm	with	23A, 12Vx1 pc

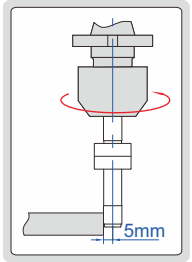
6566-2



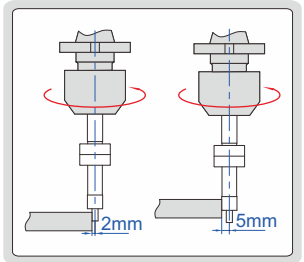
6566-3

NON-MAGNETIC EDGE FINDERS

- TiAlN coating, non-magnetic, hardness HV2500, extremely wear resistance
- Suitable for machine speed 400~600rpm



6573-1



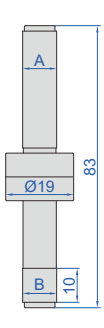
6573-2

Code	Shank (A)	Contact point (B)	Contact point (C)	Accuracy
6573-1	Ø10mm	Ø10mm	—	5μm
6573-2	Ø10mm	Ø10mm	Ø4mm	5μm

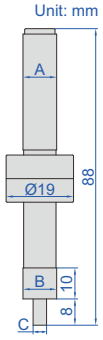
6573-1

6573-2

Unit: mm

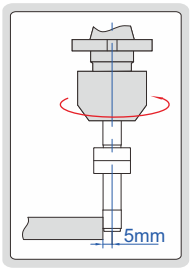


6573-1

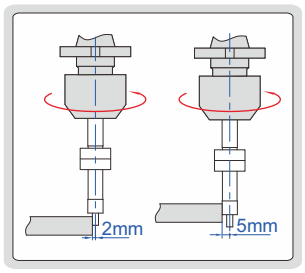


6573-2

EDGE FINDERS



6562-3



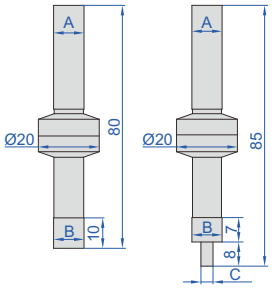
6562-4

6562-3 **6562-4**

- Hardened shank and contact point
- Suitable for machine speed 400~600rpm

Code	Shank (A)	Contact point (B)	Contact point (C)	Accuracy
6562-3	Ø10mm	Ø10mm	—	5μm
6562-4	Ø10mm	Ø10mm	Ø4mm	5μm

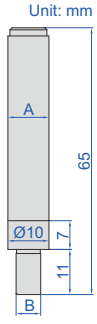
Unit: mm



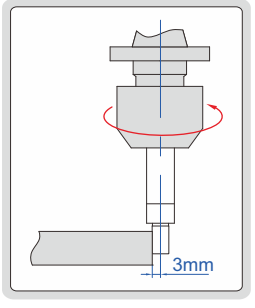
6562-3 6562-4

EDGE FINDER

- Hardened shank and contact point
- Suitable for machine speed 400~600rpm



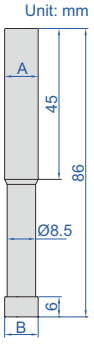
6567-1



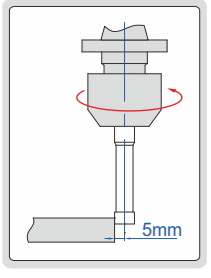
Code	Shank (A)	Contact point (B)	Accuracy
6567-1	Ø10mm	Ø6mm	8μm

CERAMIC EDGE FINDER

- Ceramic contact point, non magnetic
- Suitable for machine speed 400~600rpm



6568-1

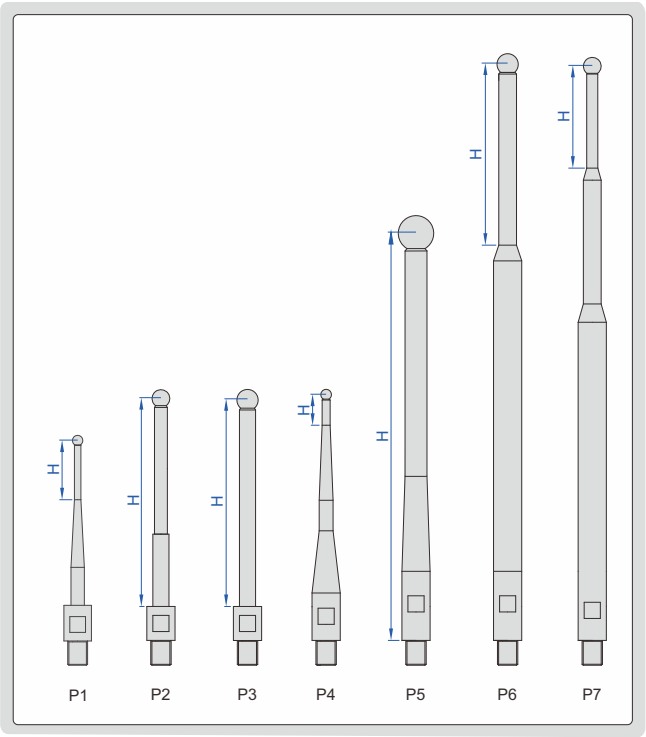


Code	Shank (A)	Contact point (B)	Accuracy
6568-1	Ø10mm	Ø10mm	8μm

EDGE FINDERS FOR EDM

CAN BE CUSTOM-MADE

spindle type



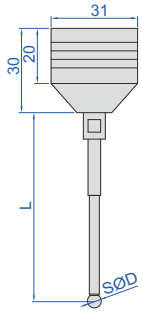
6558-52

- To locate workpieces
- Buzzer in EDM sounds when the ball touches the workpiece
- Tungsten steel ball, diameter accuracy: ±0.003mm
- Non magnetic stainless steel spindle
- Magnetic base

(mm)

Code	Ball dia. (SØD)	Spindle length (L)	Measuring depth (H)	Spindle type
6558-11	SØ1	69	5	P4
6558-21	SØ2	49	6	P1
6558-22	SØ2	69	6	P4
6558-23	SØ2	119	8	P4
6558-31	SØ3	48	6	P1
6558-32	SØ3	68	7	P4
6558-33	SØ3	118	10	P4
6558-41	SØ4	48	37	P3
6558-42	SØ4	68	57	P2
6558-43	SØ4	118	16	P4
6558-44	SØ4	168	28	P7
6558-51	SØ5	47	36	P3
6558-52	SØ5	67	56	P2
6558-53	SØ5	117	106	P2
6558-54	SØ5	167	46	P6
6558-61	SØ6	47	35	P3
6558-62	SØ6	67	56	P3
6558-63	SØ6	87	76	P3
6558-64	SØ6	117	107	P2
6558-65	SØ6	167	51	P6
6558-81	SØ8	46	46	P5
6558-82	SØ8	66	54	P3
6558-83	SØ8	116	105	P3
6558-84	SØ8	166	51	P6
6558-101	SØ10	45	34	P3
6558-102	SØ10	65	53	P3
6558-103	SØ10	115	114	P5
6558-104	SØ10	165	53	P6

Unit: mm



DIGITAL 3D TESTER

INSIZE PLUS
MADE IN EUROPE

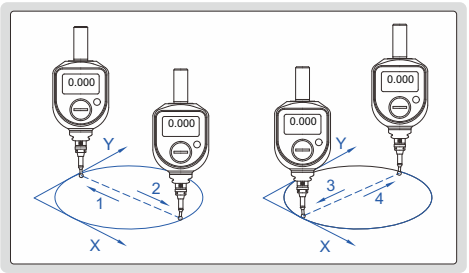
IP65 WATERPROOF

SHOCK PROOF

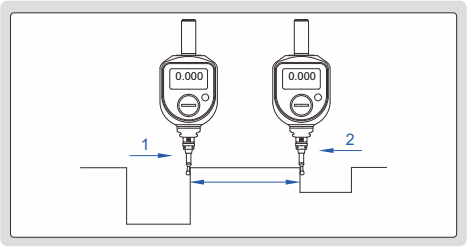
VIDEO

2846-3D

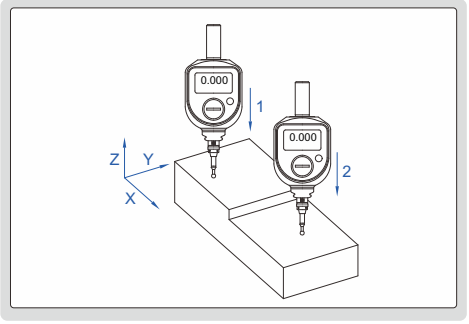
find center of holes



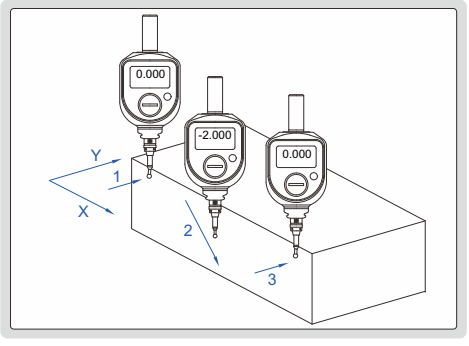
length measurement



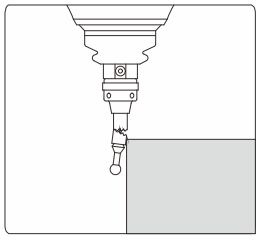
depth measurement



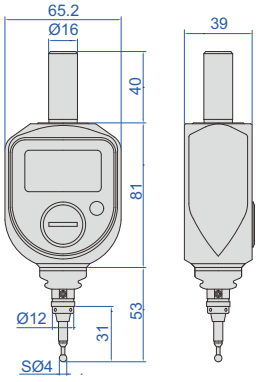
position workpieces



if the probe is pressed too much, the probe breaks at the breaking point, in order to prevent damage of the main body



Unit: mm



- Shockproof, IP65 dust/waterproof
- Mainly used for milling machines and CNC machine tools
  1. determine coordinate point on workpieces
  2. find center of holes
  3. adjust and position workpieces
- Can be used to measure length and depth
- Reading shows movement value of probe.
  for example, if probe moves 0.01mm, reading changes 0.01mm
- Large working range on three axes (X, Y, Z),
  which avoids damage of probes due to collision by mistake
- Optional accessory: probe (code **2840-N1**)

Code	Range	Resolution	Repeatability at zero (one direction)	X, Y, Z range
2846-3D	±2mm	0.005mm	±0.005mm	6mm

ATTENTION: WHEN USING STANDARD PROBE, READING SHOWS MOVEMENT VALUE OF PROBE. WNEN USING EXTENDED PROBE, READING DOES NOT SHOW MOVEMENT VALUE OF PROBE

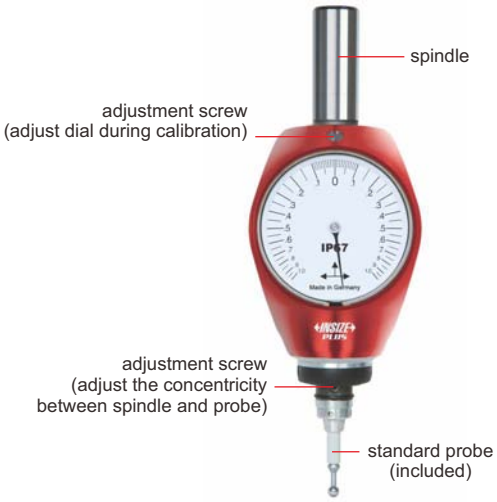
IP67 WATERPROOF

SHOCK PROOF

3D TESTER

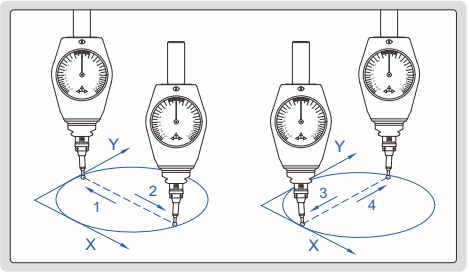
INSIZE PLUS
MADE IN EUROPE

VIDEO

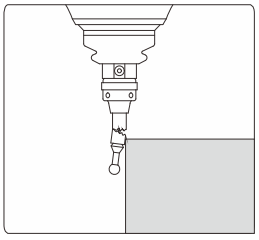


2840-3D

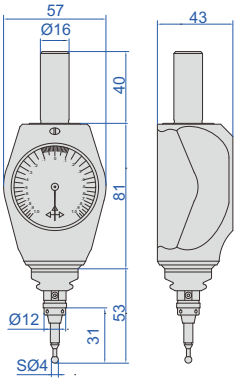
find center of holes



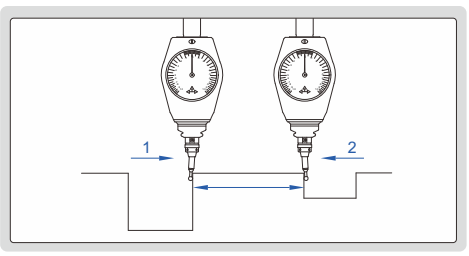
if the probe is pressed too much,
the probe breaks at the breaking point,
in order to prevent damage of the main body



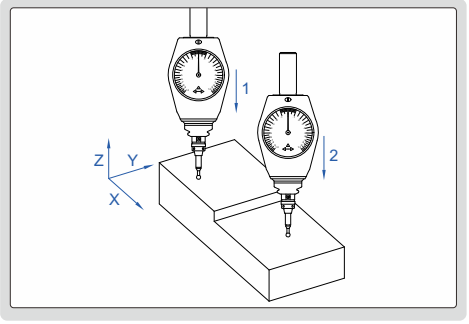
Unit: mm



length measurement



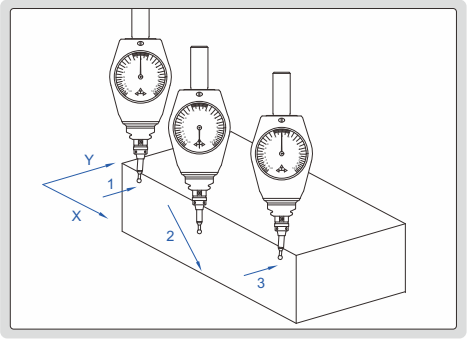
depth measurement



- Shockproof, IP67 dust/waterproof
- Mainly used for milling machines and CNC machine tools
  1. determine coordinate point on workpieces
  2. find center of holes
  3. adjust and position workpieces
- Can be used to measure length and depth
- When using standard probe, reading shows movement value of probe, for example, if probe moves 0.05mm, reading changes 0.05mm (5 graduations). When using extended probe, reading does not show movement value of probe
- Large working range on three axes (X, Y, Z), which avoids damage of probes due to collision by mistake

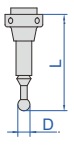
Code	Range	Graduation	Repeatability at zero (one direction)	X, Y, Z range
2840-3D	±1.0mm	0.01mm	±0.01mm	6mm

position workpieces



PROBE (optional)

Code	Description	L	D
2840-N1	standard probe	31mm	SØ4mm
2840-N2	extended probe	56.6mm	SØ6mm



standard probe

extended probe

TRIGGER-TYPE 3D PROBE (AUDIBLE AND VISUAL ALARM)
CODE 9410

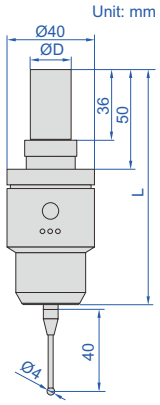
IP67 WATERPROOF

type-C charging cable (included)

signal extension cord (included)

VIDEO

Unit: mm



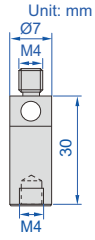
- Suitable for all kinds of machining centers, CNC boring machines, milling machines, drilling and tapping centers
- Suitable for workpiece detection of various solid materials
- Manually set the workpiece coordinates and machining reference points before CNC machining process
- In the process of CNC 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 Ø20mm 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

application

SPECIFICATION

Probe length (L)	115.5mm
Shank diameter (ØD)	20mm
Trigger direction	±X, ±Y, +Z
Directional trigger protection stroke	X-Y: ±12°, Z: +5mm
Arbitrary one-way repeated trigger accuracy	≤1μm
Trigger force in X-Y direction (with standard styli)	0.3-0.6N
Trigger force in Z direction	4N
Dust/waterproof	IP67
Type-C charging cable	1.5m
Signal extension cord (provide signals to CNC)	1m

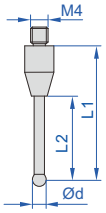
Unit: mm



EXTENSION ROD (OPTIONAL)

Code	Material
9410-R1	ceramic

Unit: mm



STYLI (OPTIONAL)

(mm)

Code	L1	L2	Ød	Material of rod *	Material of ball
9410-P1	18	13	4	stainless steel	ruby
9410-P2	18	13.5	5	stainless steel	ruby
9410-P3	18.5	13	3	stainless steel	ruby
9410-P4	19	8	2	carbide	ruby
9410-P5	19.5	4	1	carbide	ruby
9410-P6	50	40	2	carbide	ruby
9410-P7	50	34	5	ceramic	ruby
9410-P8	100	86	6	ceramic	ruby
9410-P9	40	30	4	ceramic	ruby
9410-P10	50	36	6	ceramic	ruby

* For stainless steel or carbide rods, it is recommended to use extension rods to protect spindles in case of break

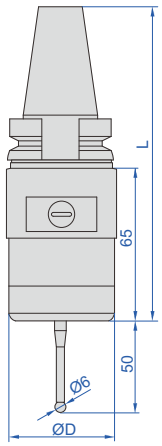
INFRARED TRANSMISSION PROBES FOR CNC MACHINE TOOLS

VIDEO

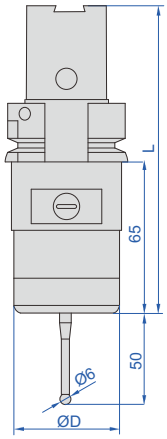
IP68 WATERPROOF

9413-1

Unit: mm



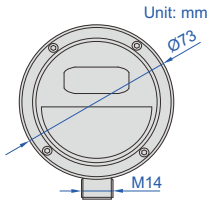
BT30, BT40, BT50, CAT40 spindles



HSK63A spindle

9413-A

Unit: mm



BT30, BT40, BT50, CAT40	HSK63A
	

- On-machine measurement of all kinds of small and medium-sized machining centers, CNC boring, milling machines and five-axis CNC machine tools
- Automatically set the workpiece coordinate and machining reference point before CNC machining process
- Automatically measure dimension and position coordinate during CNC machining
- Measure dimension, shape and position after CNC machining is completed
- Four kinds of SSR signals such as probe status, error, low voltage and pulse are transmitted to CNC machine tools
- M code is used to control on or off of probes
- Infrared transmission, strong anti-interference
- Infrared transmission/reception range: 5m
- Supplied with automatic measurement software
- Optional accessory: styli

PROBE SPECIFICATION

Code	9413-1	9413-2	9413-3	9413-4	9413-5
Probe length (L)	140mm	166mm	216mm	168mm	136mm
Probe diameter (ØD)	48mm	48mm	48mm	48mm	48mm
Applicable spindle *	BT30	BT40	BT50	CAT40	HSK63A
Trigger accuracy of styli in any direction	1μm				
Protection stroke triggered by styli in all directions	X and Y axis stroke: ±12.5°, Z axis stroke: 5mm				
Trigger force of styli in all directions	X and Y axis: 1-1.6N, Z axis: 5-10N				
Dust/waterproof	IP68				
Power supply	2×LS14250 lithium battery				

* SK and ISO spindle probes also can be customized

RECEIVER SPECIFICATION

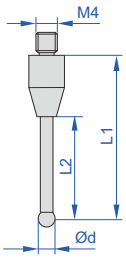
Code	9413-A
Protection function	low battery voltage or probe transmitting signal all the time**
Applicable probe	code **9413-1**, **9413-2**, **9413-3**, **9413-4**, **9413-5**
Cable length	8m
Dust/waterproof	IP68
Power supply	input voltage: 24V±10% (DC), load current: 50mA

** When battery voltage is low or probe is in wrong state, receiver sends a signal to CNC machine to stop working

To be continued

Continued from previous page

Unit: mm

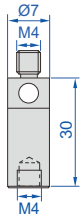


STYLI (OPTIONAL) **(mm)**

Code	L1	L2	Ød	Material of rod ***	Material of ball
9410-P1	18	13	4	stainless steel	ruby
9410-P2	18	13.5	5	stainless steel	ruby
9410-P3	18.5	13	3	stainless steel	ruby
9410-P4	19	8	2	carbide	ruby
9410-P5	19.5	4	1	carbide	ruby
9410-P6	50	40	2	carbide	ruby
9410-P7	50	34	5	ceramic	ruby
9410-P8	100	86	6	ceramic	ruby
9410-P9	40	30	4	ceramic	ruby
9410-P10	50	36	6	ceramic	ruby

*** For stainless steel or carbide rods, it is recommended to use extension rods to protect spindles in case of break

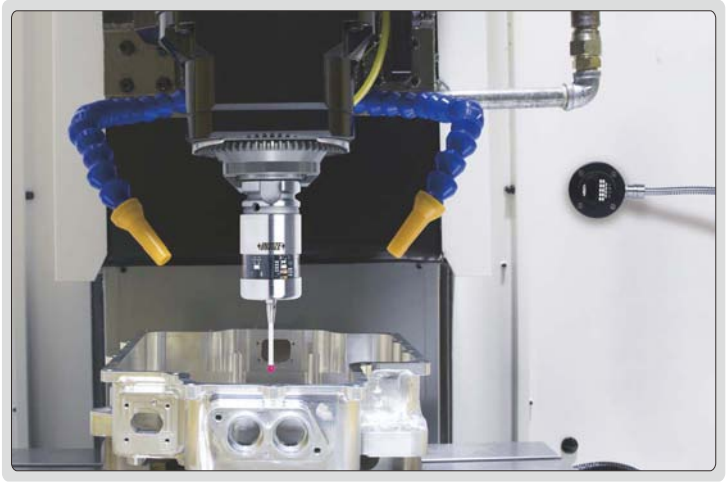
Unit: mm



EXTENSION ROD (OPTIONAL)

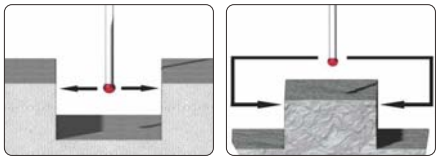
Code	Material
9410-R1	ceramic

application

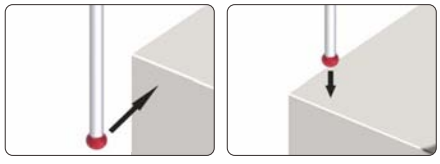


AUTOMATIC MEASUREMENT SOFTWARE (INCLUDED)

1. Stylus automatic calibration
2. Protection of stylus during probe movement (avoid collision)
3. Groove and boss measurement

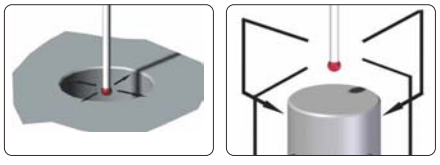


5. X or Y single-surface measurement

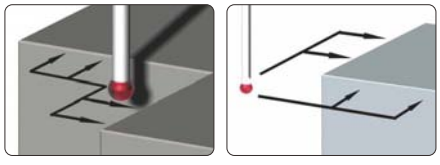


7. 4th axis measurement
8. Angle on X and Y plane measurement
9. Three points measurement of arc

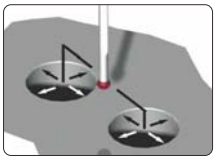
4. Bore and axis measurement



6. Internal and external corner measurement



10. Measure the distance between two holes

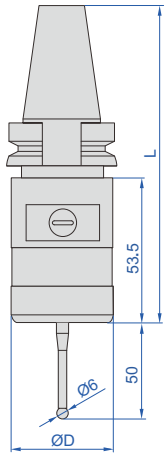


INFRARED TRANSMISSION PROBES FOR CNC MACHINE TOOLS (CAN BE USED IN COMBINATION WITH ZERO SETTER WITH INFRARED TRANSMISSION)

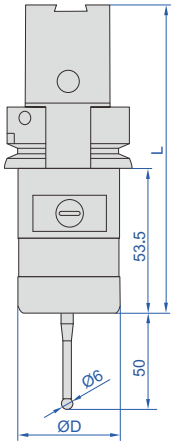
IP68 WATERPROOF

9414-1

Unit: mm



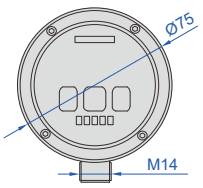
BT30, BT40, BT50, CAT40 spindles



HSK63A spindle

9414-A

Unit: mm



VIDEO

BT30, BT40, BT50, CAT40	HSK63A
	

- On-machine measurement of all kinds of small and medium-sized machining centers, CNC boring, milling machines and five-axis CNC machine tools
- Automatically set the workpiece coordinate and machining reference point before CNC machining process
- Automatically measure dimension and position coordinate during CNC machining
- Measure dimension, shape and position after CNC machining is completed
- Four kinds of SSR signals such as probe status, error, low voltage and pulse are transmitted to CNC machine tools
- Working status can be displayed on receiver LED indicator
- Signal transmitting range of probe can be set
- Infrared transmission, fast response, high reliability
- The battery (5% utilization rate per shift) can be used continuously for 90 days
- Supplied with measurement software package
- Can be used in combination with zero setter with infrared transmission (code **9415-1**, **9415-2**)
- Optional accessory: styli

PROBE SPECIFICATION

Code	9414-1	9414-2	9414-3	9414-4	9414-5
Probe length (L)	130mm	151.5mm	208.3mm	156mm	126.5mm
Probe diameter (ØD)	40mm	40mm	40mm	40mm	40mm
Applicable spindle*	BT30	BT40	BT50	CAT40	HSK63A
Trigger accuracy of styli in any direction	1μm				
Protection stroke triggered by styli in all directions	X and Y axis stroke: ±12°, Z axis stroke: 5mm				
Trigger force of styli in all directions	X and Y axis: 0.5-1N, Z axis: 7.5N				
Dust/waterproof	IP68				
Power supply	2xLS14250 lithium battery				

*SK and ISO spindle probes also can be customized

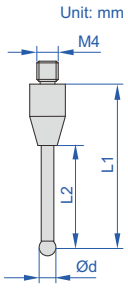
RECEIVER SPECIFICATION

Code	9414-A
Protection function	low battery voltage, overstroke and signal interrupt protection**
Applicable	probe code **9414-1**, **9414-2**, **9414-3**, **9414-4**, **9414-5**; zero setter code **9415-1**, **9415-2**
Infrared transmission/reception range	3m
Cable length	8m
Dust/waterproof	IP68
Power supply	input voltage: 24V±10% (DC), load current (max): 50mA

**When battery voltage is low or zero setter is in wrong state, receiver sends a signal to CNC machine to stop working

To be continued

Continued from previous page

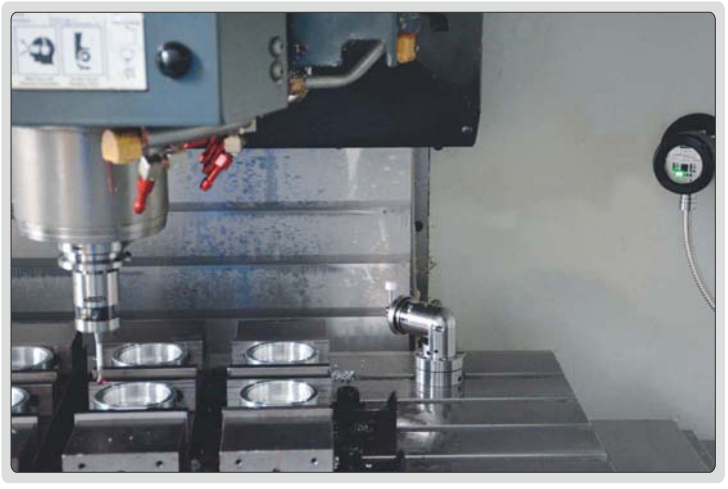


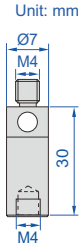
STYLI (OPTIONAL) **(mm)**

Code	L1	L2	Ød	Material of rod ***	Material of ball
9410-P1	18	13	4	stainless steel	ruby
9410-P2	18	13.5	5	stainless steel	ruby
9410-P3	18.5	13	3	stainless steel	ruby
9410-P4	19	8	2	carbide	ruby
9410-P5	19.5	4	1	carbide	ruby
9410-P6	50	40	2	carbide	ruby
9410-P7	50	34	5	ceramic	ruby
9410-P8	100	86	6	ceramic	ruby
9410-P9	40	30	4	ceramic	ruby
9410-P10	50	36	6	ceramic	ruby

*** For stainless steel or carbide rods, it is recommended to use extension rods to protect spindles in case of break

application



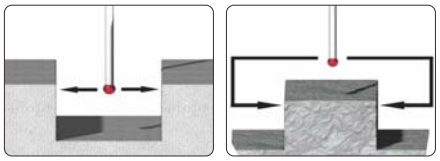


EXTENSION ROD (OPTIONAL)

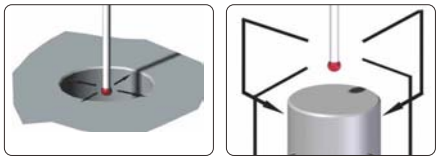
Code	Material
9410-R1	ceramic

AUTOMATIC MEASUREMENT SOFTWARE (INCLUDED)

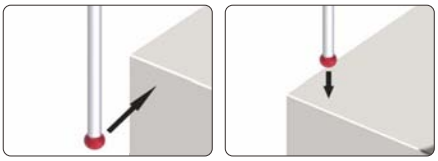
1. Stylus automatic calibration
2. Protection of stylus during probe movement (avoid collision)
3. Groove and boss measurement



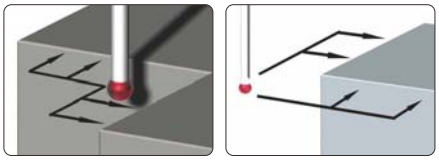
4. Bore and axis measurement



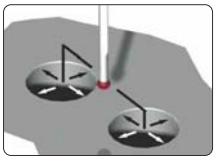
5. X or Y single-surface measurement



6. Internal and external corner measurement



7. 4th axis measurement
8. Angle on X and Y plane measurement
9. Three points measurement of arc
10. Measure the distance between two holes



IP68
WATERPROOF

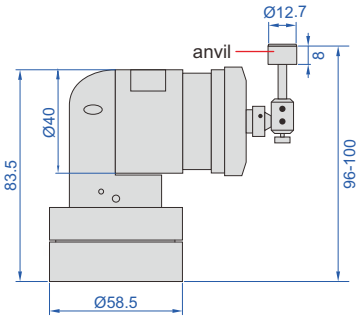
ZERO SETTER WITH INFRARED TRANSMISSION (FIVE-SIDE)

VIDEO

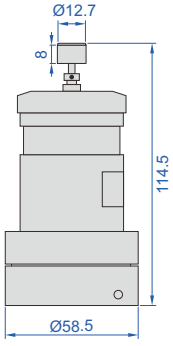
9415-1

9414-A

Unit: mm

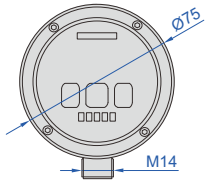


9415-1



9415-2

Unit: mm



- Suitable for all kinds of small and medium-sized machining centers, CNC boring, milling machines and five-axis CNC machine tools, etc.
- Automatically set the tool length parameters before CNC machining process
- Automatic detection of tool wear or damage during CNC machining
- Automatic detection of tool wear or damage after CNC machining is completed
- The working surface of anvil is ceramic and has chamfer, which can greatly improve the service life
- Infrared transmission, fast response, high reliability
- The battery (5% utilization rate per shift) can be used continuously for 90 days
- Supplied with automatic zero setter software package
- Can be used in combination with infrared transmission probes for CNC machine tools (code **9414-1**, **9414-2**, **9414-3**, **9414-4**, **9414-5**)
- Optional accessory: square anvil (code **9412-B1**)

ZERO SETTER SPECIFICATION

Code	9415-1	9415-2
Height (factory setting)	96-100mm	114.5mm
Diameter of zero setter	Ø12.7mm	
Trigger direction	±X, ±Y, +Z	
Trigger protection stroke	X-Y: ±5mm, Z: 8mm	
Trigger force of zero setter all directions	X and Y axis: 0.5-1N, Z axis: 1.5N	X and Y axis: 0.5-1N, Z axis: 5N
Repeated trigger accuracy	≤1μm	
Start/stop mode	M code control *	
Hardness of the zero setter	HM8.5	
Dust/waterproof	IP68	
Power supply	2xLS14250 lithium battery	

*Before purchasing, please confirm whether CNC still has enough M code to be used

To be continued

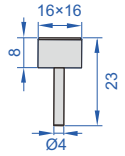
Continued from previous page

RECEIVER SPECIFICATION

Code	**9414-A**
Protection function	low battery voltage, overstroke and signal interrupt protection**
Applicable	probe code **9414-1**, **9414-2**, **9414-3**, **9414-4**, **9414-5**; zero setter code **9415-1**, **9415-2**
Infrared transmission/reception range	3m
Cable length	8m
Dust/waterproof	IP68
Power supply	input voltage: 24V±10% (DC), load current (max): 50mA

** When battery voltage is low or zero setter is in wrong state, receiver sends a signal to CNC machine to stop working

Unit: mm



application

SQUARE ANVIL (OPTIONAL)

Code	Shape	Dimension	Material
9412-B1	square	16×16mm	ceramic

Automatic zero setter software (included)

1. Automatic calibration of the center position of the anvil
2. Standard knife length setting
3. Semi-automatic and fully automatic tool setting for tool length
4. Semi-automatic and fully automatic tool diameter settings
5. Automatic detection of tool wear and breakage




IP68
WATERPROOF

ZERO SETTER WITH CABLE (FIVE-SIDE)
CODE 9412

- Suitable for various machining centers, CNC boring and milling machines, etc.
- Automatically set the tool length parameters before CNC machining process
- Automatic detection of tool wear or damage during CNC machining
- Automatic detection of tool wear or damage after CNC machining is completed
- The working surface adopts ceramic material and chamfering process, which can greatly improve the service life
- The plug, cable part and output signal of the host are protected, so that the zero setter can work in the splash environment for a long time
- Signal transmission through the cable, the reverse connection of the power line can change the state of the signal output
- The working status is displayed by the indicator light
- Supplied with automatic zero setter software package
- Optional accessory: square feeler block (code **9412-B1**)

SPECIFICATION

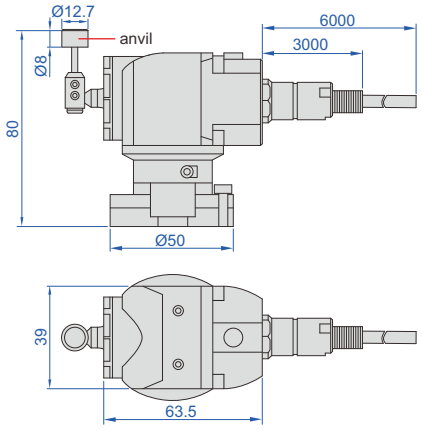
Height (factory setting)	80±0.5mm
Diameter of zero setter	Ø12.7mm
Trigger direction	±X, ±Y, +Z
Trigger protection stroke	X-Y: ±5mm, Z: 8mm
Axial reset force	3.4N-3.6N
Repeated trigger accuracy	≤1μm
Hardness of the zero setter	HM8.5
Class of protection	IP68
Cable length *	6m (stainless steel sheath 3m)
Input voltage	24V±10% (DC)
Load current	max: 50mA
Signal type and logic **	SSR (NC/NO)

*The length of the cable can be customized

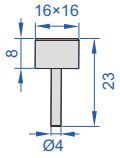
**Before purchasing, it is necessary to confirm whether the working logic of the tool setter output signal matches CNC control system

VIDEO

Unit: mm



Unit: mm



SQUARE ANVIL (OPTIONAL)

Code	Shape	Dimension	Material
9412-B1	square	16×16mm	ceramic

application

Automatic zero setter software (included)

1. Automatic calibration of the center position of the anvil
2. Standard knife length setting
3. Semi-automatic and fully automatic tool setting for tool length

4. Semi-automatic and fully automatic tool diameter settings

5. Automatic detection of tool wear and breakage

ZERO SETTER (WITH CABLE)
CODE 9411

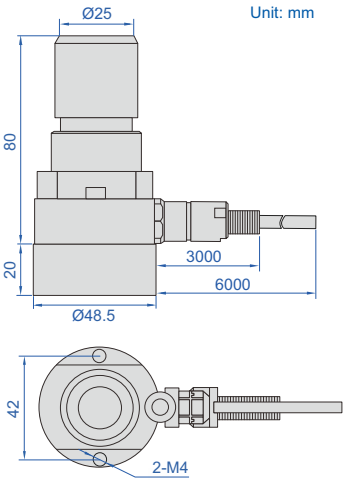
IP68 WATERPROOF

- Suitable for various machining centers, CNC boring and milling machines, etc.
- Automatically set the tool length parameters before CNC machining process
- Automatic detection of tool wear or damage during CNC machining
- Automatic detection of tool wear or damage after CNC machining is completed
- The working surface is made of hard alloy material, which can greatly improve the scratch resistance
- Signal transmission through the cable, the reverse connection of the power line can change the state of the signal output
- The working status is displayed by the indicator light
- Supplied with 20mm mounting base
- Supplied with automatic zero setter software package
- Optional accessory: blow-cleaning device (code **9411-C1**)

SPECIFICATION

Height	80mm (the height is 100mm after adding the mounting base)
Diameter of zero setter	Ø25mm
Downward travel	5mm
Axial reset force	6N±0.3N
Repeated trigger accuracy	≤1μm
Hardness of the zero setter	HRA90-93
Class of protection	IP68
Cable length *	6m (stainless steel sheath 3m)
Input voltage	24V±10% (DC)
Load current	max: 50mA
Signal type and logic **	SSR (NC/NO)

VIDEO



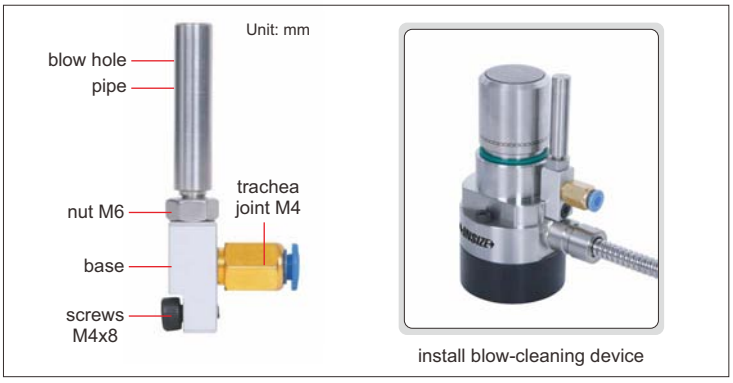
*The length of the cable can be customized
**Before purchasing, it is necessary to confirm whether the working logic of the tool setter output signal matches CNC control system

BLOW-CLEANING DEVICE (OPTIONAL)

Code	Material
9411-C1	stainless steel

Before purchasing a blow-cleaning device, it is necessary to confirm whether CNC machine has the M-code to control the cleaning

blow-cleaning device **(optional)**



application

Automatic zero setter software package (included)

1. Automatic calibration of the center position of the cutter block
2. Standard knife length setting
3. Semi-automatic and fully automatic tool setting for tool length
4. Automatic detection of tool wear and breakage

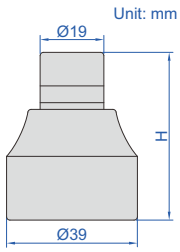


ELECTRONIC ZERO SETTER

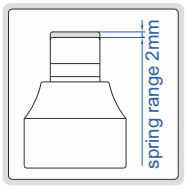
LOW TEST FORCE

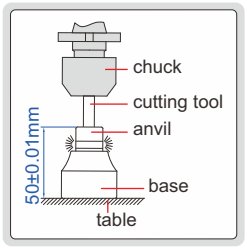
INSIZE PLUS MADE IN EUROPE

- The base is electrically conducted to the cutting tools through the table and chuck. The LED lights up when the cutting tool touches the anvil
- Magnetic base
- Two batteries LR44



6553-50

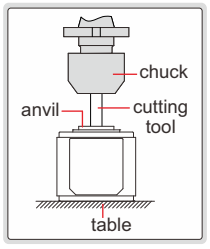




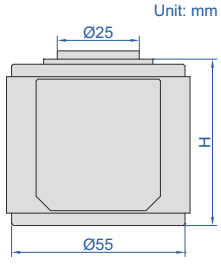
Code	Height (H)	Accuracy	Test force
6553-50	50mm	±10μm	7N (at 49mm)

DIGITAL ZERO SETTER

IP65 WATERPROOF



6557-50



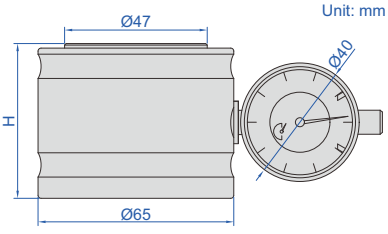
Code	Height (H)	Anvil stroke	Accuracy*	Test force	Repeatability
6557-50	50mm	2.5mm	±10μm/0.0004"	10N (at 50mm)	2μm

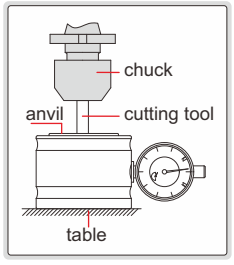
* The accuracy is ensured within Ø10mm of the center

- Resolution: 0.001mm/0.00005"
- IP65 dust/waterproof
- Buttons: on/off, mm/inch, zero
- CR2032 battery
- Automatic power off
- Magnetic base
- Automatic backlight at zero

ZERO SETTER

INSIZE PLUS MADE IN EUROPE

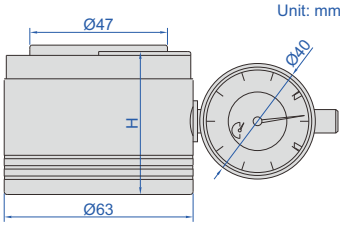


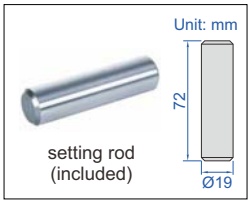


6554-50

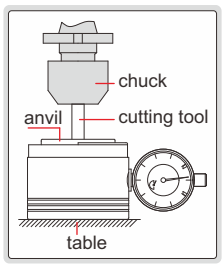
Code	Height (H)	Graduation	Accuracy	Test force
6554-50	50mm	0.01mm	±0.02mm	9N (at 50mm)

ZERO SETTER



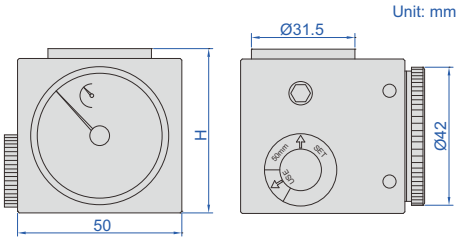


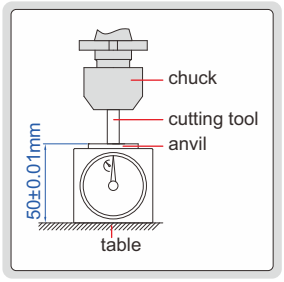
6556-50



Code	Height (H)	Graduation	Accuracy	Test force
6556-50	50mm	0.01mm	±0.01mm	10N (at 50mm)

ZERO SETTER





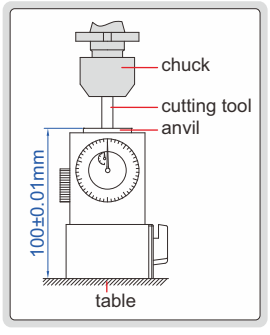
- Magnetic base

2397-502A

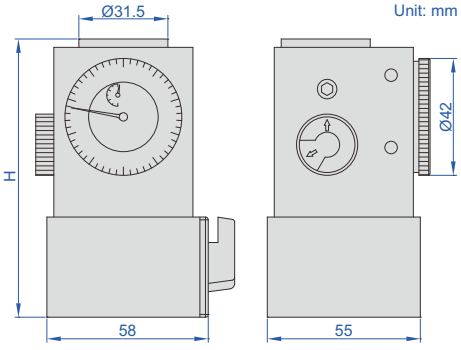
Code	Height (H)	Graduation	Accuracy	Test force
2397-502A	50mm	0.01mm	±0.01mm	9N (at 50mm)

ZERO SETTER

- Magnetic base with on-off switch



2394-100A



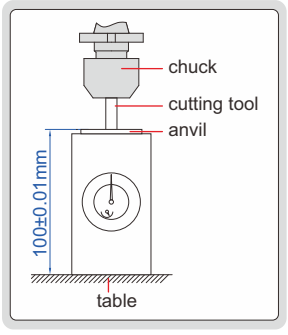
Code	Height (H)	Graduation	Accuracy	Test force
2394-100A	100mm	0.01mm	±0.01mm	9N (at 100mm)

LOW TEST FORCE ZERO SETTER

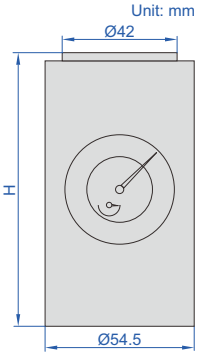
INSIZE PLUS
MADE IN EUROPE

LOW TEST FORCE

- Magnetic base
- Low test force, suitable for micro tools with minimum diameter Ø0.1mm



6555-100B



Code	Height (H)	Graduation	Accuracy	Test force
6555-100B	100mm	0.01mm	±0.01mm	1N (at 100mm)