



INSIZE CO., LTD.

www.insize.com

V.2 05.2026

INSIZE - Founded in 1995, is a dedicated supplier of measuring instruments. To enable us to serve the world-wide market, we are setting up an INSIZE distribution network on a global basis. INSIZE headquarter is located in China. We have branch companies in Canada, USA, Mexico, Brazil, India, Turkey, Malaysia, Thailand, Vietnam, UAE, Spain, France, Italy, UK, Poland, Czech Republic, Romania, Slovenia, Australia and distributors in over 120 countries. We ensure that wherever you are, our INSIZE products have service and support that are within hands reach. Our dedication to Quality, Innovation, Service and Value has created a worldwide demand for the INSIZE products.



is our standard quality, made in China



is our premium quality, made in Europe



To become the world's leading supplier of
industrial measurement solutions,
providing measurement products and services for
industrial production,
addressing measurement challenges,
continuously innovating, and contributing to social
development.



Customized Services





01 *Data Output And Software*



02 *Measuring Tools*



03 *Levels*



04 *On-Machine Measurement*



05 *Linear Probes And Scales*



06 *Roundness, Profile And Roughness Testers*



07 3D Measurement



08 Profile Projectors, Quick Measurement Systems, Vision Measuring Systems



09 Cutting Tools Inspection



10 Microscopes, Magnifiers



11 Videoscopes



12 Other Dimension Measuring Instruments



13 *Hardness Testers*



14 *Metallography Preparation*



15 *Flaw Detectors*



16 *Testing Machines, Force Gauges, Tension Meters*



17 *Torque Testers, Torque Wrenches*



18 *Component Analysis*



19 *Coating Inspection*



20 *Other Instruments*

Wireless Data Transmission



Wired Data Transmission



Measurement Data Management and Analysis Software



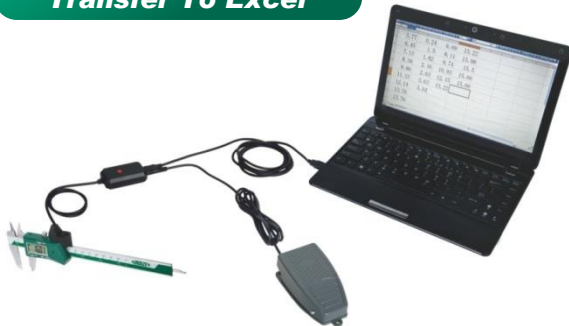
Inspection Table



Data Transmission And Management — Improve productivity

Supports multiple measurement tools for real-time data collection. One-click transfer of measurement data to Excel, measurement software or mobile APP after measurement. This process is efficient and accurate, and facilitates data management and sharing to improve productivity.

Transfer To Excel



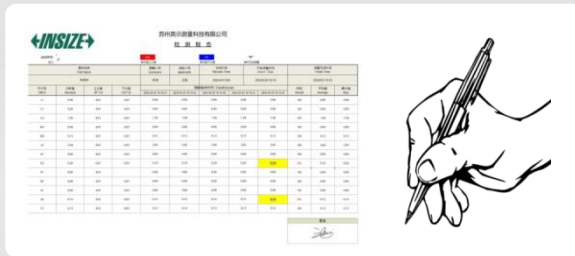
Transfer To Data Management Software

Transfer To Phone APP



Advantages of Data Transmission (P1)

Traditional Measurement



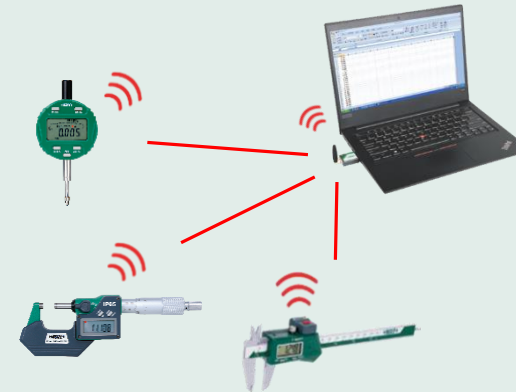
Traditional measurement is manual recording is inefficient, you need to measure and record at the same time; sometimes you need two operators for operation, one to measure and the other to record.

Traditional measurements are made by manually recording data to a paper file or manually entering it into a computer, which inevitably results in recording errors.

Traditional measurements use paper forms, which are difficult to save , circulate and trace at a later stage.

VS

Communication Transfer Data



Data can be transmitted directly to a computer /phone through wired or wireless data transmission, improving efficiency.

The direct transmission of measurement data to the computer, eliminating human error and ensuring that the data is true.

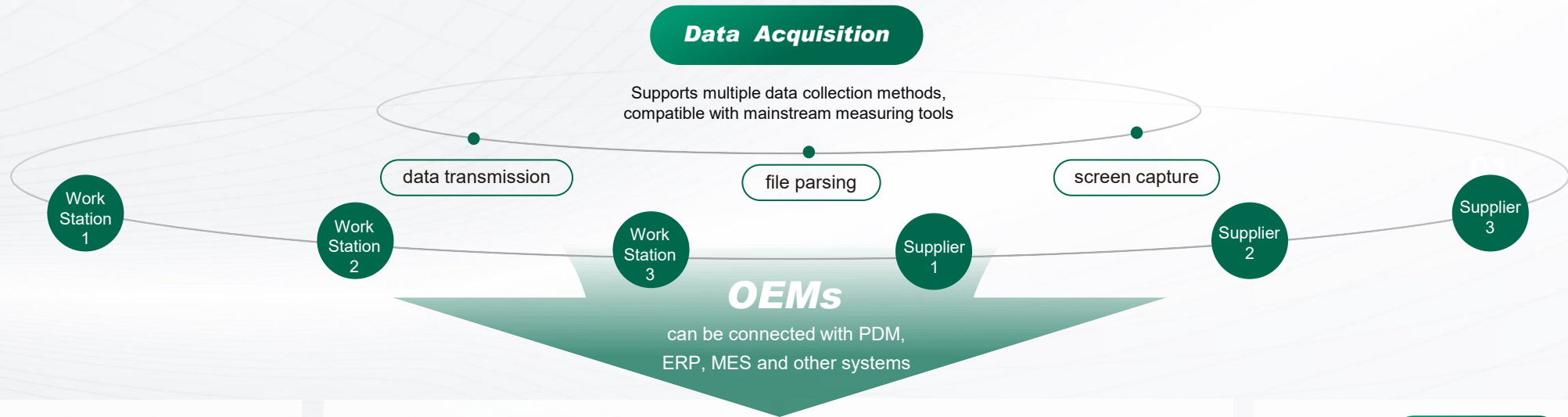
Compared to paper forms, electronic forms of data transmission are more convenient for storage, transferring between each other and later reference.

Timeliness

Validity

Paperless

Advantages of Data Management (P2)



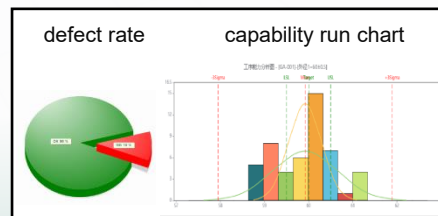
Data Management

Manages measurement data for easy traceability and review.

Structure Tree	Seq	Manag.	List Item Code	List Item Name	Creation User	Creation Time
INSIZE	1	Sieve	001	Drawing A	Administrator	2022-06-07 09:45:24
ITC	2	Sieve	002	Drawing B	Administrator	2022-06-07 14:50:44
Workpace A	3	Sieve	003	Drawing C	Administrator	2022-06-07 14:50:46
MDCR	4	Sieve	004	Drawing A	Administrator	2022-06-07 14:50:52
Workpace A	5	Sieve	005	Drawing A	Administrator	2022-06-07 14:50:55
Workpace C	6	Sieve	006	Drawing B	Administrator	2022-06-07 14:51:28
ME	7	Sieve	007	Drawing B	Administrator	2022-06-07 14:50:25

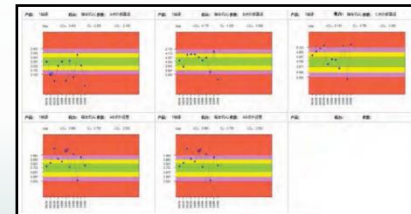
SPC analysis

Analyzes measurement data to identify production inefficiencies and optimize workflows.



Panel

Real-time monitoring of process quality to address risks promptly.



Reports

Provides inspection reports upon production completion, enhancing quality credibility.

OEMs can conduct random inspections to verify if results align with those from suppliers and ensure full production traceability.

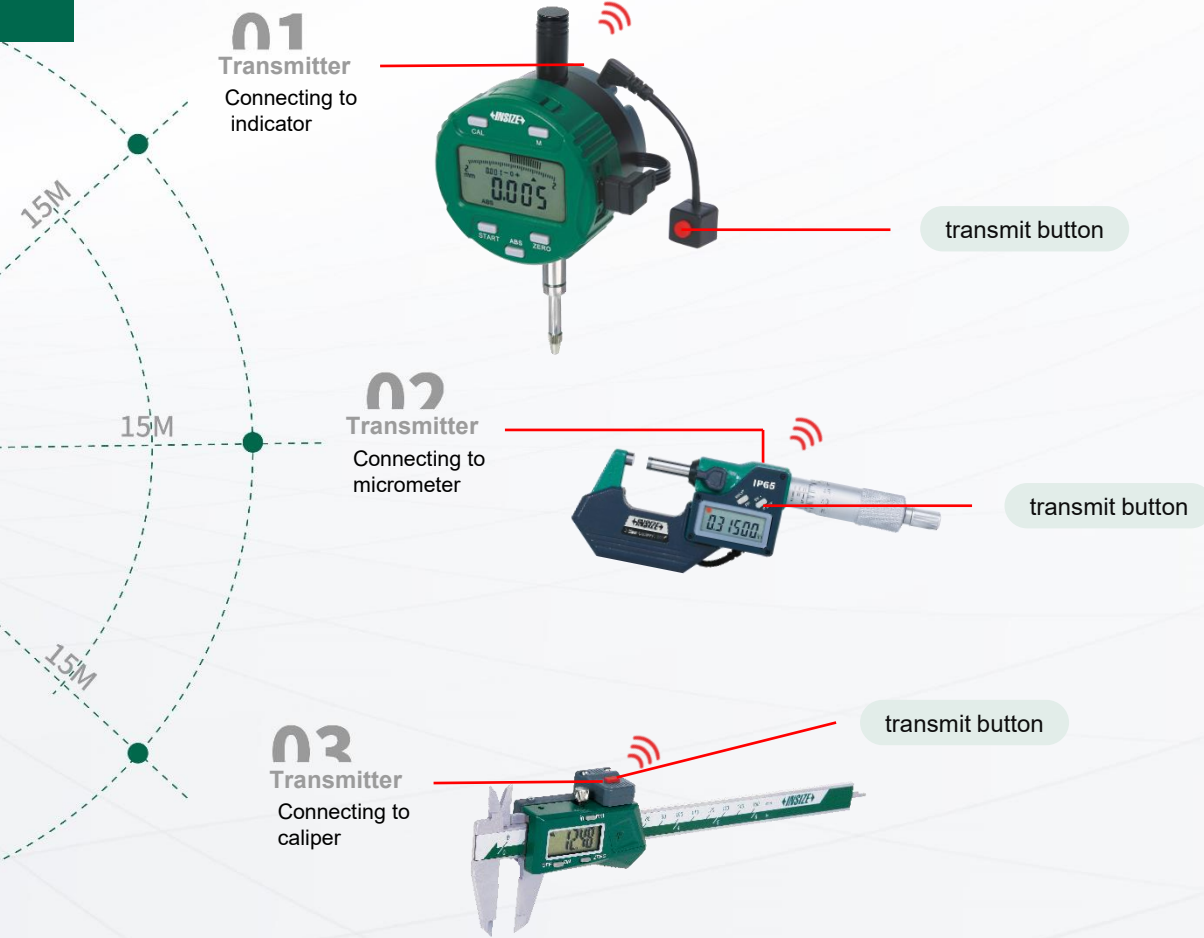
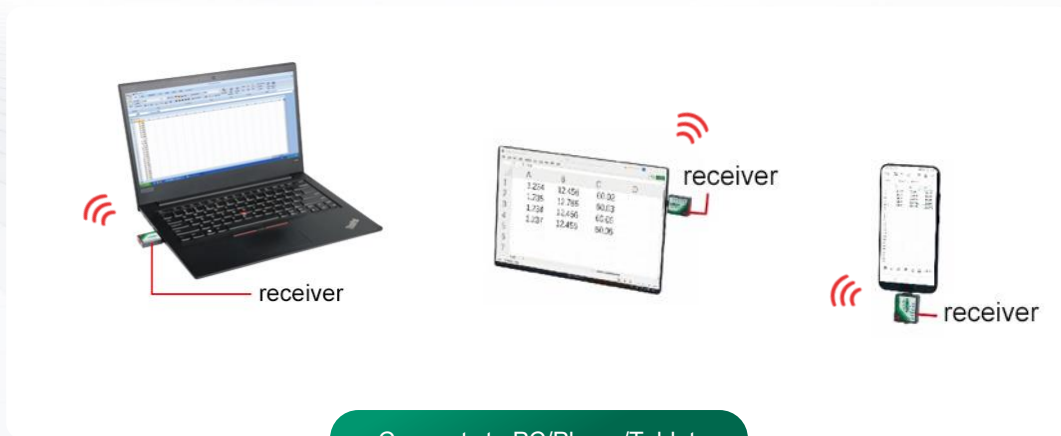
01

Wireless Data Transmission



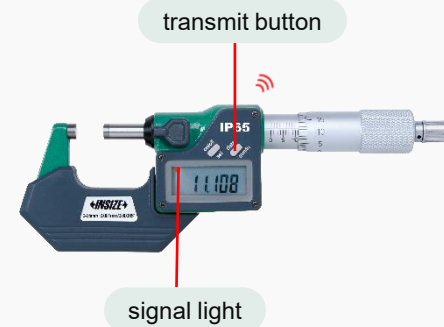
Wireless Data Transmission System External Transmitter

- Measuring tool connects to a transmitter to send data, and receiver received data
- Trigger the transmit button of transmitter to wirelessly transfer measurement data to a computer /phone
- Transmission distance : 15m (unobstructed, no electromagnetic interference)
- Customizable AES128 data encryption to enhance data security



Wireless Data Transmission System Built-in Wireless

- The built-in wireless measuring tool sends data, and receiver received data
- Transmission distance 10m(unobstructed, no electromagnetic interference)
- Trigger the transmit button of measuring tool to wirelessly transfer data to the PC/phone



Receiver

- The receiver connects to the transmitter or built-in wireless measuring tool, receiving data wirelessly.



Single Channel Receiver (Keyboard Signals)

can be connected to 1 transmitter

- For computers and mobile phone with Windows, Android, and iOS system
- Recognized as HID keyboard device, the transmitted data is recognized by computers or mobile phones as keyboard input data and press enter key, 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.



Multichannel Receiver (Keyboard Signals)

can be connected to 6 transmitters



Multichannel Receiver (virtual com port)

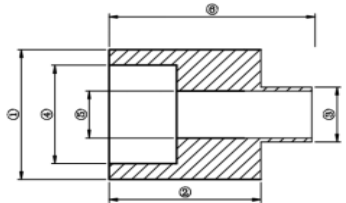
can be connected to 16 transmitters, each has an unique identification code

- For computers with windows system.
- Outputs serial port signals, to be used with software.

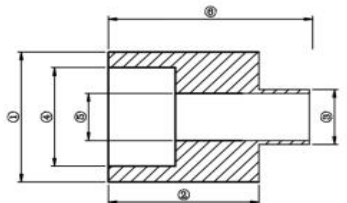
The data entry jump direction can be switched according to needs, either downwards or to the right.
Custom output formats can also be tailored.

Excel Directional Input Software (7315-2 Receiver Included)

- The readings of measuring tools can be transmitted to the designated area of excel, which facilitates data management and improves efficiency.



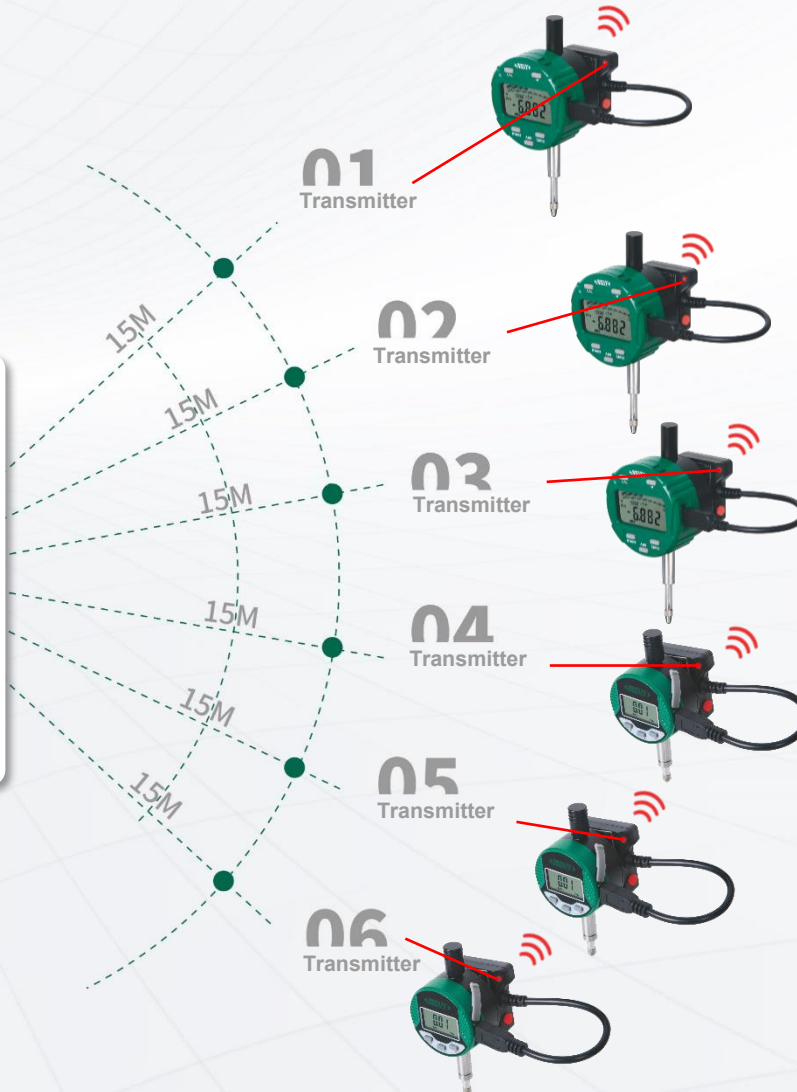
Projects	External diameter1	Height2	External diameter3	Internal diameter4	Internal diameter5
Specifications	60±0.5	45±0.5	21±0.05	30±0.06	15±0.1
Measuring tool	Built-in Wireless Transmission Caliper	Caliper	Micrometer	Bore gauge	Bore Plug Gauge
Transmission Type	Wireless Data Transmission				
1	60.19	45.20	20.967	30.012	14.996
2	60.49	45.24	20.945	30.235	14.996
3	60.13	45.32	20.956	30.145	15
4	60.45	45.22	20.945	30.233	14.996
5	60.45	45.21	20.975	30.141	15
6	60.44	45.08	20.847	30.000	14.993
7	60.44	45.03	20.955	30.056	14.993
8	Channel1 to be written	Channel2 to be written	Channel3 to be written	Channel4 to be written	Channel5 to be written
9					



Projects	External diameter1	External diameter3	Height2	Internal diameter4	Internal diameter5
Specifications	60±0.5	21±0.05	45±0.5	30±0.06	15±0.1
Measuring tool	Micrometer	Micrometer	Caliper	Bore Plug Gauge	Bore Plug Gauge
Transmission Type	Wireless Data Transmission				
1	60.19	20.967	45.20	30.012	14.996
2	60.49	20.945	45.24	30.235	14.996
3	60.13	20.956	45.32	30.145	15
4	60.45	20.945	45.22	30.233	14.996
5	60.45	20.975	45.21	30.141	15
6	60.44	20.847	45.08	30.000	14.993
7	60.44	20.955	45.03	30.056	14.993
8	60.34	Channel1 to be written	Channel2 to be written	30.036	Channel3 to be written
9					

Wireless Data Transmission System of Digital Indicators (Remote control) 7213

- Digital indicator connects to a transmitter to send data, and receiver received data
- Trigger the transmit button of receiver to transfer data from multiple digital indicators to computer/phone



	channel 1	channel 2	channel 3	channel 4	channel 5	channel 6
	A	B	C	D	E	F
1	24.35	0.4045	57.72	1.949	0.4075	0.03568
2	24.45	0.5045	57.82	2.049	0.5075	0.13568
3	26.35	0.4045	57.72	1.949	0.4075	0.00078
4	27.35	0.4045	57.72	1.7575	0.4075	0.0762
5	28.35	0.4045	57.72	1.7575	0.4075	0.0762
6	29.35	0.4045	57.72	1.7575	0.4075	0.07618
7	30.35	0.4045	57.72	1.7575	0.4075	0.55334
8	31.35	0.4045	57.72	1.7575	0.4075	0.61198
9	24.35	0.4045	57.72	1.7575	0.4075	0.6172

The button on receiver is pressed once, the readings of all digital indicators are transmitted

Wireless Data Transmission 7315 -- Advantages



Transmission distance: 15m (external transmitter), 10m (built-in transmitter).



Stable data transfer within the effective range, no data loss or errors.



Point-to-point transfer between measuring tools and collection terminal, with memory after pairing—no need to reconnect.



Data can be transferred normally after rebooting the computer/phone, no connection required.



When transferring data, data with ID number is for easy identification of the source.

Wireless Data Transmission VS. Competitor Brands Advantages

High Compatibility

01

Our receivers feature multiple interfaces (USB, Type C, Micro USB, and Lightning), compatible with various system terminals such as computers, tablets, or phones running Windows, Android, or iOS.

Diverse Communication Protocols

03

Supports both emulated keyboard signals and serial port signals to accommodate varied industrial scenarios.

Persistent Binding Mechanism

05

Single-pairing ensures continuous data transmission—no re-pairing required when replacing terminals, instruments, or batteries.

Data Format

07

Supports multiple data formats: e.g., Value + Enter, Value + TAB, ID number + Value + Enter, etc.

Deep Customization

09

Provides bespoke data transmission solutions tailored to client specifications.

Comprehensive Coverage

02

Three product categories: built-in wireless transmitters, external wireless transmitters, and all-in-one transmitters. our wireless data transmission capability comprehensively covers commonly used measuring tools and instruments.

User-Friendly Operation

04

Simplified device pairing, unpairing, and data transfer processes for effortless setup.

Ultra-Low Power Consumption

06

Operates for over 400,000 transmissions on a single CR2032 battery.

Data Security

08

Optional AES128 encryption for critical data protection.

Advanced Analytics Capabilities

10

Mature supporting software collects, aggregates, and analyzes measurement data, enabling streamlined, intelligent, and visualized data management.

02

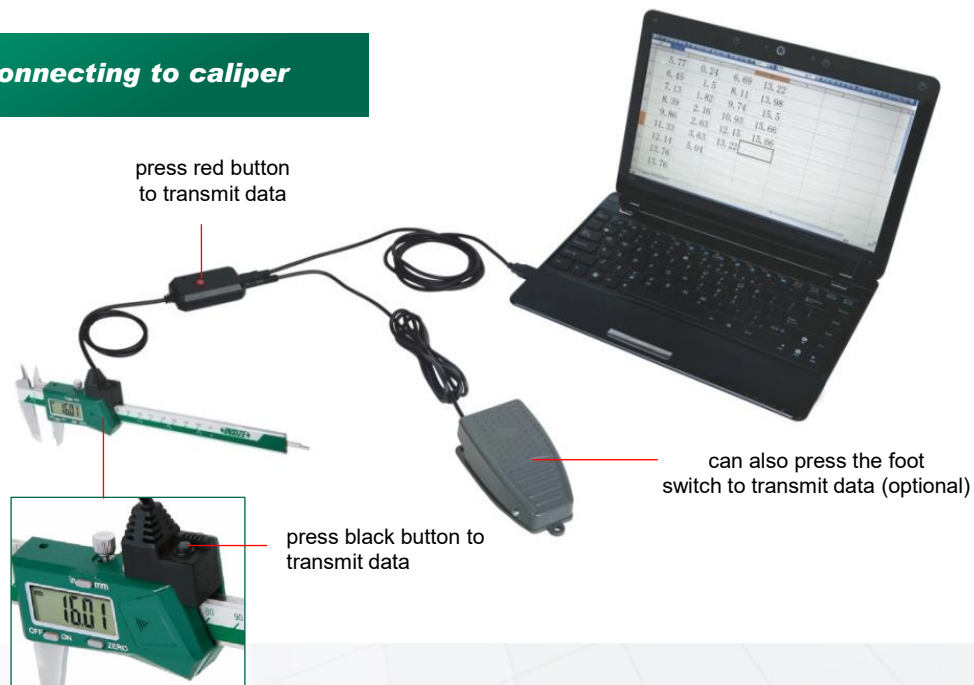
Wired Data Transmission



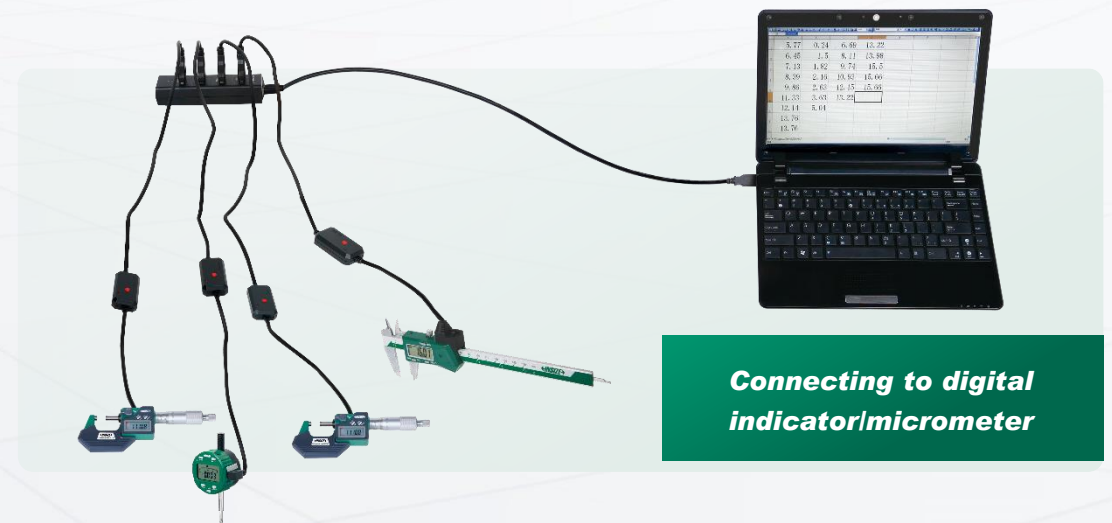
Wired Data Transmission (keyboard Signals) 7302

- Measuring tool connects to the data output cable, and trigger the transmit button to wired transfer data to a computer/tablet

Connecting to caliper



- 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 key, such as 12.34 ↵).
- For any softwares which can receive keyboard signal.
- Cursor movement direction after data input can be switched (down/right).
- Supports output of ID numbers if needed, e.g., 2023032265 12.34.

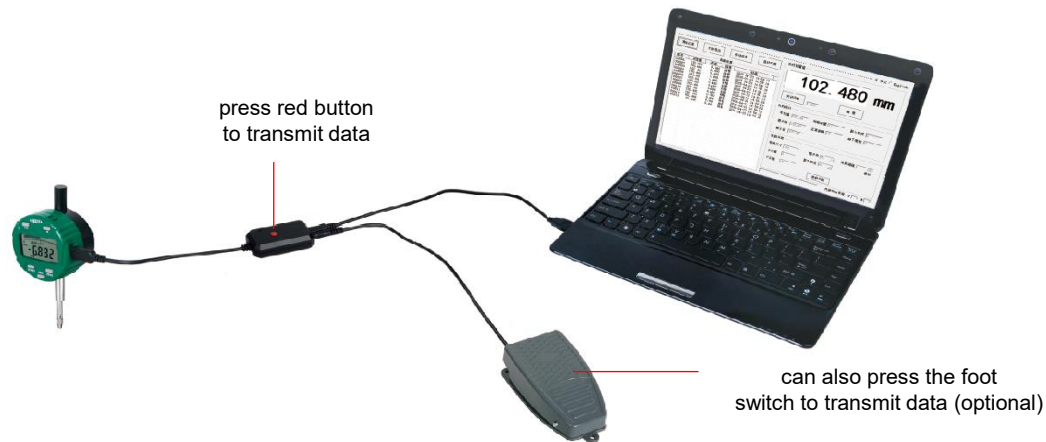


Connecting to digital indicator/micrometer

Wired Data Transmission (Text Format, Virtual Com Port) 7305

- Measuring tool connects to the data output cable, and trigger the transmit button to wired transfer data to a computer
- Output serial signals to transfer data to serial communication software.
- Supports output of ID numbers if needed, can designated area to input data from different measuring tool, e.g., 2023032265 12.34.

Connecting to digital indicator



Connecting to digital indicator/micrometer/caliper

485 Data Output Cables 7215

- Connect the measuring instrument to the data cable, and connect the data cable to the PLC to enable automated control of the measurement data.



Application

Modbus-RTU Protocol

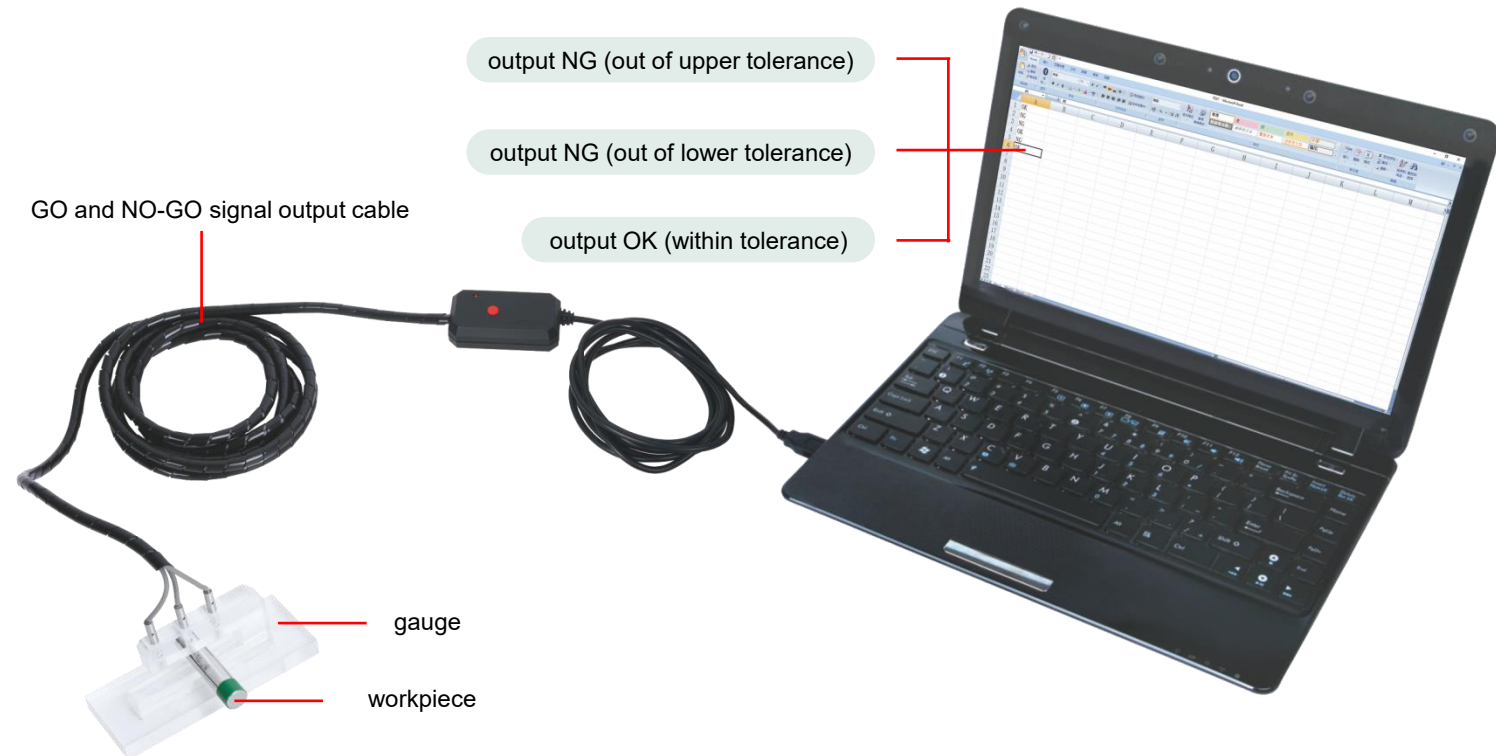
- Configurable baud rates (9600, 19200, 38400)
- Can set communication address

Wired Data Transmission Comparison

PK	7302 Series (Keyboard Signal)	7305 Series (Serial Signal)	7215 Series (485)
Adapted Terminals	Computers or tablets with Windows, Android, or iOS systems (USB interface supported)	Computers or tablets with Windows system (USB or RS232 interfaces supported)	PLC (Terminal block)
Communication type	keyboard format (suitable for any software or APP which can receive keyboard input values)	<p>text format, virtual com port</p> <p>(a. connection to software that recognizes different channels and IDs according to serial communication protocols and defines data entry area for different measurement tools;</p> <p>b. can also use the included software (included in the 7210-2 interface box) to transfer measurement data from multiple measuring tools to the designated area in Excel for easy data management)</p>	Modbus-RTU protocols (Connecting a PLC for automated data control)
Data Collection Methods	Single key press transmission	Single key press transmission or command transmission or real-time continuous transmission	Command Transmission
Transmission Performance	Wired transmission directly transfers data through physical connections, offering strong anti-interference capability, stable signals, high speed, and good security. It supports high-bandwidth data transmission.		

GO And NO-GO Signal Output Cable 7132 (P1)

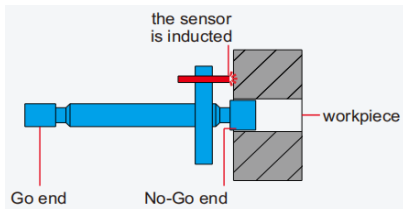
- Connects gauge with signal output cables, automatically judgment and wired transmitting the judgment result OK or NG to the computer.



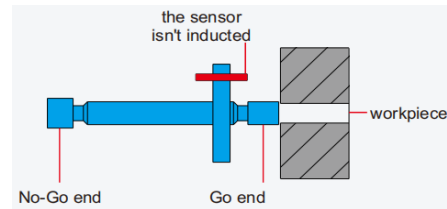
- Suitable for metal workpieces

GO And NO-GO Signal Output Cable 7132 (P2)

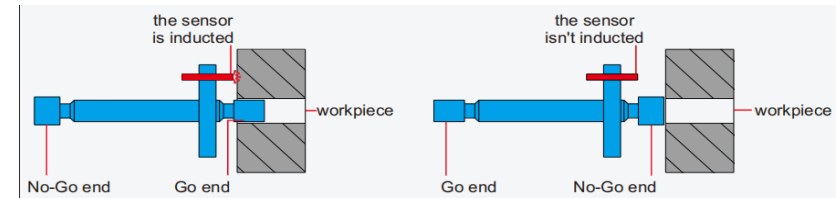
Output cable with two sensors



If the No-Go end of gage can be inserted into the workpiece, it is out of upper tolerance and output NG

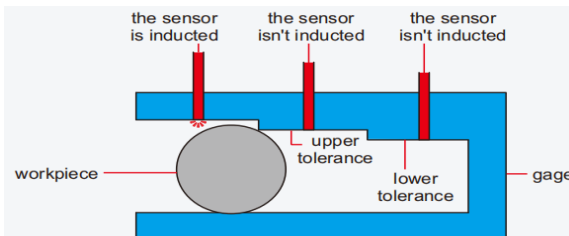


If the Go end of gage cannot be inserted into the workpiece, it is out of lower tolerance and output NG

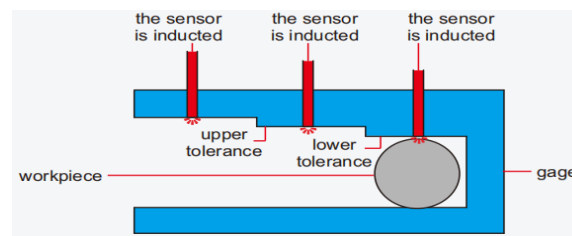


If the Go end of gage can be inserted into the workpiece, but the No-Go end of gage cannot be inserted into the workpiece, it is within tolerance and output OK

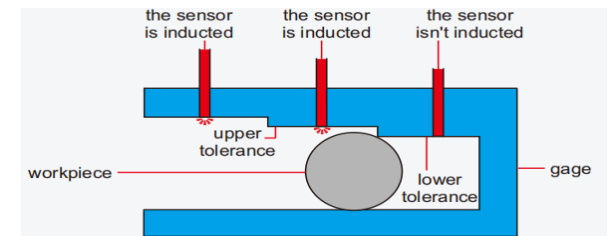
Output cable with three sensors



If the workpiece cannot enter into the upper tolerance section, it is out of upper tolerance and output NG



If the workpiece can enter into the lower tolerance section, it is out of lower tolerance and output NG



If the workpiece can enter into the upper tolerance section, but the workpiece cannot enter into the lower tolerance section, it is within tolerance and output OK

OKING Input switch 7327

- Transmit the OK/NG results to the computer via a wired switch.



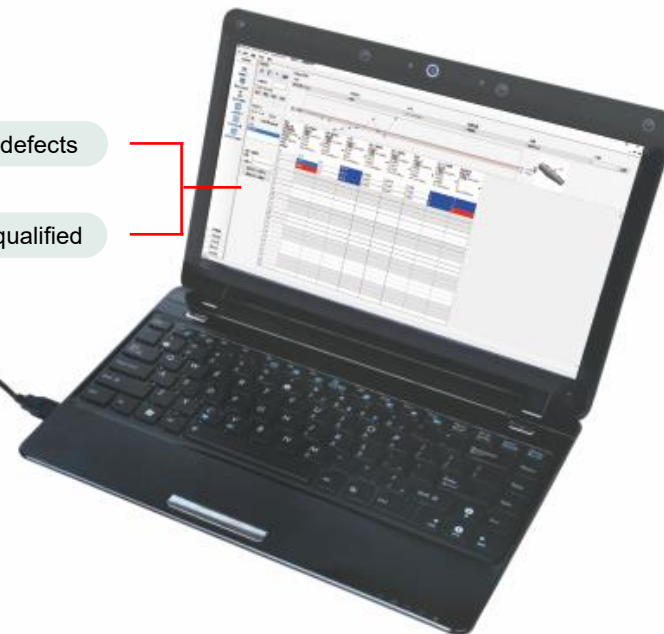
hand switch



foot switch

Output NG for appearance defects

Output OK for appearance qualified



Wired Data Transmission VS. Competitor Brands Advantages

01

Adapted Terminals

- Adaptable to multiple acquisition terminals
 - a. Computers or tablets with Windows, Android or iOS systems
 - b. PLC

02

Communication types

- Multiple data communication types to meet various production application scenarios:
 - a. (Simulated keyboard signal) Directly transfer data to Excel reports or customer measurement software, MES, or ERP systems
 - b. (Output serial port signal) Interface with serial communication software, or transfer measurement data from multiple gauges to the designated area of Excel for easier data management
 - c. (485) Can be connected to a PLC to enable automated control of measurement data

03

Data Format

- Supports multiple data formats: e.g., Value + Enter, Value + TAB, ID number + Value + Enter, etc.

04

Special Data Types

- Output the judgment result OK or NG

03

Measurement Data Management and Analysis Software



Measurement Data Management and Analysis Software (Basic Version)-- 7349

- Automatically collects measurement data from measuring tools (e.g., digital calipers, micrometers, digital indicator , ...), analyzes and manages the measurement data to improve production quality.
- Software modules: Measuring tools management, inspection plan, data acquisition, data management, SPC analysis and quality reports

Measuring tools Management

Manage basic information and calibration dates of measuring tools.

ID	NAME	TYPE	UNIT	STATUS	CALIBRATION DATE	EXPIRES DATE
1	GAUGE	10	mm	OK	2023-01-01	2024-01-01
2	MICROMETER	20	mm	OK	2023-01-01	2024-01-01
3	DIGITAL INDICATOR	30	mm	OK	2023-01-01	2024-01-01

Data management

Query measurement data (red display for out-of-tolerance) and result status (OK/NG, Rework, UpMax/LowMin).

ITEM	MEASUREMENT VALUE	STATUS
1	60.007	OK
2	45.43	OK
3	21.09	OK
4	12.02	OK

Make inspection plan

- Workpiece Definition
- Control Plans
- Data Interaction

ITEM	ITEM NAME	ITEM CODE	ITEM TYPE	ITEM UNIT	ITEM STATUS	ITEM CALIBRATION DATE	ITEM EXPIRES DATE
1	GAUGE	10	mm	OK	2023-01-01	2024-01-01	
2	MICROMETER	20	mm	OK	2023-01-01	2024-01-01	
3	DIGITAL INDICATOR	30	mm	OK	2023-01-01	2024-01-01	

Measuring tools Management

Support multiple data acquisition methods

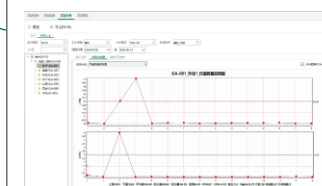
- manual input: data input with keyboard
- data transfer: data collection with data output cable

ITEM	MEASUREMENT VALUE
1	60.007
2	45.43
3	21.09
4	12.02

Can be connected with PDM,ERP, MES and other systems

SPC analysis

- SPC Analysis: average, min value, max value, range, Cp, Cpk, variation, sigma, counts of OK/NG.
- Quality Analysis Control Charts: Pie chart, X chart, Xbar-R chart, Xbar-S chart, I-MR chart and Run chart.



Quality report

Generate quality reports with control plan information, SPC parameters, and measurement data, can export Excel.

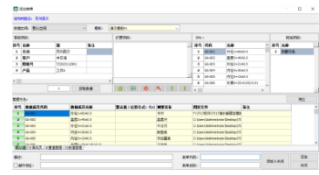
ITEM	MEASUREMENT VALUE	STATUS
1	60.007	OK
2	45.43	OK
3	21.09	OK
4	12.02	OK

Measurement Data Management and Analysis Software -- 7317

- Automatically collects measurement data from measuring tools (e.g., digital calipers, micrometers, digital indicator , ...), analyzes and manages the measurement data to improve production quality.
- Software modules: Measuring tools management, inspection plan, data acquisition, data management, SPC analysis and quality reports

Make inspection plan

Customize the workpiece size information and the rules for determining the difference.
Tolerances and traceability (gauge/lot, etc.).



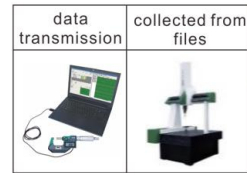
Management of inspection plan

Manage the testing program according to the company's workflow.

序号	检测名称	数量	规格	日期	检测人
1	测量A1	10	Φ10	2019-11-11	...
2	测量A2	10	Φ10	2019-11-11	...
3	测量A3	10	Φ10	2019-11-11	...
4	测量A4	10	Φ10	2019-11-11	...
5	测量A5	10	Φ10	2019-11-11	...
6	测量A6	10	Φ10	2019-11-11	...
7	测量A7	10	Φ10	2019-11-11	...
8	测量A8	10	Φ10	2019-11-11	...
9	测量A9	10	Φ10	2019-11-11	...
10	测量A10	10	Φ10	2019-11-11	...

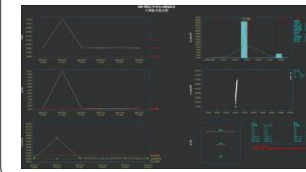
Data acquisition

Guided measurements according to the drawings.
Support a variety of acquisition methods, compatible with most of the mainstream gages and gauges.



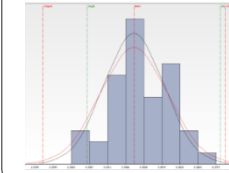
Can Be Connected With PDM, ERP, MES And Other Systems

Real Time Monitoring



Quality control personnel can monitor real-time quality status for each process and address risks promptly.

SPC analysis



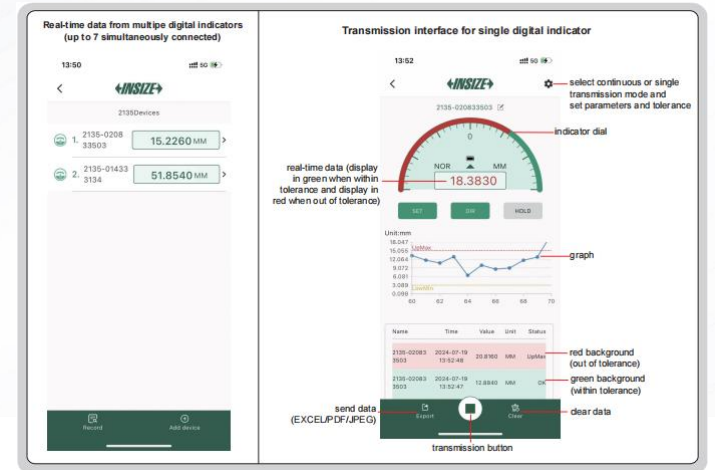
Measurement data analysis helps identify engineering limitations and optimize workflows.

Quality report

Quality reports increase quality credibility, reduce acceptance workload, and ensure traceable quality control.

Data Management APP

- Measuring tools connects to the mobile APP by Bluetooth for real-time data collection
- Displays synchronized data with automatic judgment (red display for out-of-tolerance)
- Data trend charts help quickly identify abnormal fluctuations
- Export data as PDF, JPEG, or Excel files
- Transmission distance: 10 meters



04

Inspection Table



Digital Measurement Station -- 7906-06

The small and lightweight station is easy to move, and equipped with a 23.6-inch touchscreen computer (i7 CPU&Windows system)

CAN BE CUSTOMILZED



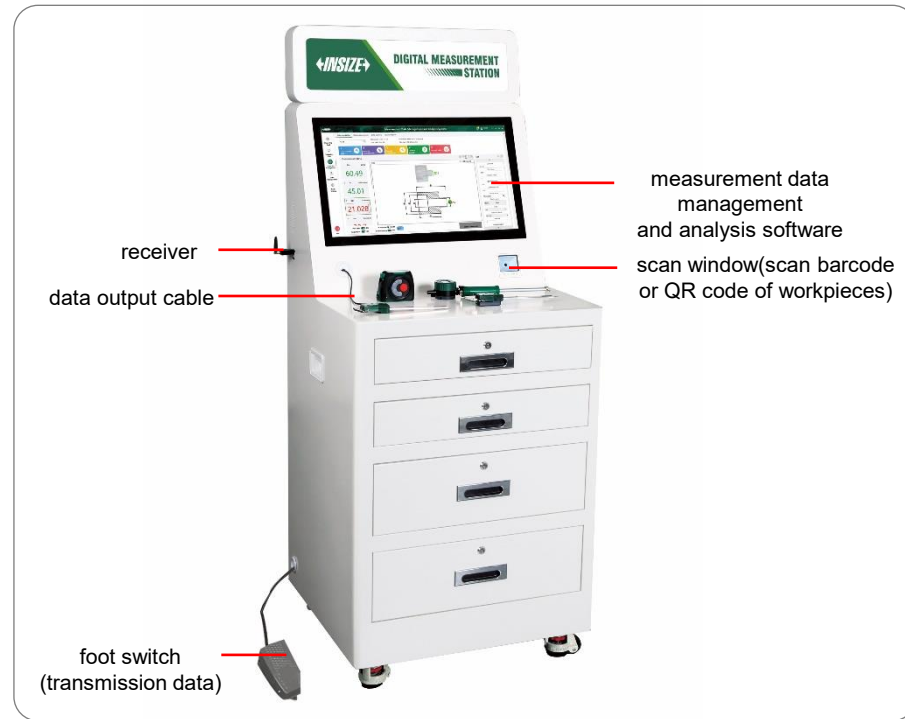
storage drawer
(customizable cavity)



touchscreen
computer

• L×W×H : 650x600x1617mm

Application



receiver
data output cable

measurement data
management
and analysis software
scan window(scan barcode
or QR code of workpieces)

foot switch
(transmission data)

Inspection Table

- Customers can choose the suitable inspection table based on different measurement applications.



7901



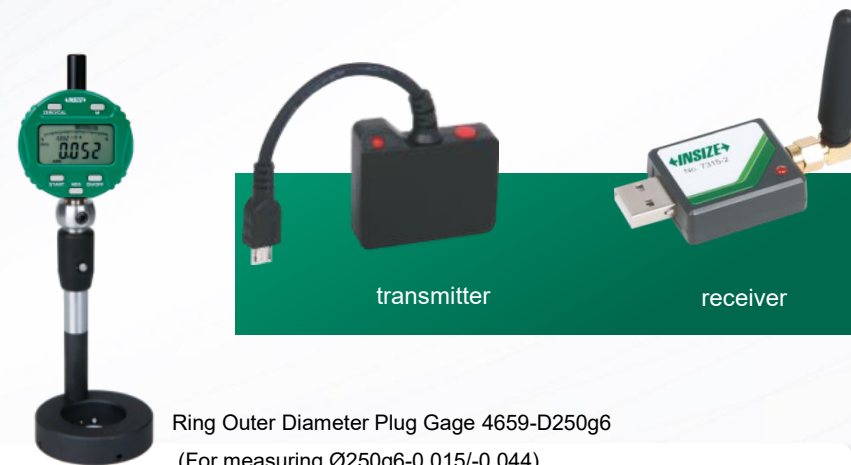
7911



7923

SPC Inspection Station Case

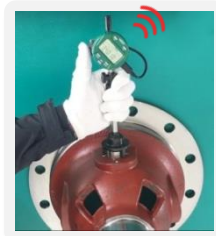
1. Customer needs to quickly measure the inner and outer diameters of automotive differentials.
2. Measuring tools were selected for quick on-site measurements and to minimize human errors: 4653 precision Bore plug gauge, 2186 quick dial snap gauge, and 4659 ring type inner/outer diameter plug gauge.
3. The 7315 wireless data transmission system was selected, and transmit data to the 7317 software.



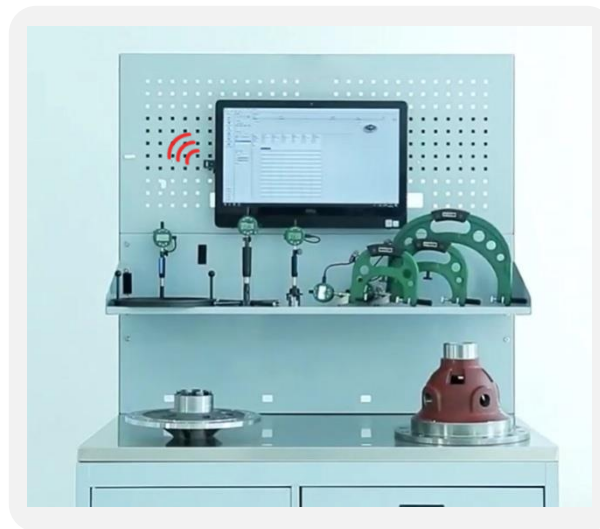
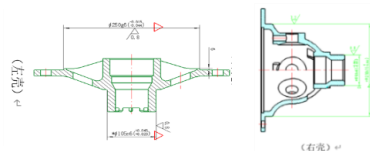
Ring Outer Diameter Plug Gage 4659-D250g6
(For measuring $\varnothing 250g6-0.015/-0.044$)



Dial snap Gage 2186-125/275
(For measuring $\varnothing 105n6+0.045/+0.023/ \varnothing 270h7 0/-0.052$)



Bore Plug Gage 4653-B34J8
(For measuring $\varnothing 34J8+0.024/-0.015$)



Using the 7315 wireless transmission system, measurement data is directly transferred to the 7317 software.

Calipers



Depth Measuring Tools



Height Measuring Tools



Comparison Measuring Tools



Micrometers



Bore Diameter And Circumference Measuring Tools



ARC Radius Measuring Tools



Keyway And Chamfer Measuring Tools



02

Measuring Tools (P2)



Indicators And Dial Indicator Stands



Indicating Measuring Tools



Standards And Gauge Blocks



Angle, Straightness, Flatness Measuring Tools



Concentricity And Runout Testers



Simple Measuring Tools



Set-up Tools



Calipers



Digital Calipers



Vernier Calipers



Dial Calipers



Caliper/Height Gauge Checkers



Caliper End Grinding Machines



Depth Base Attachments



Accessory Sets For Digital Calipers



Groove Points For Digital Calipers



Special Purpose Calipers

Digital Calipers



Digital Calipers (Standard Type) 1108



IP67 Waterproof Digital Calipers 1195



Wireless Digital Calipers 1113



Digital Calipers 1114



Left Hand Digital Calipers 1130



Digital Calipers With Ceramic Tipped Jaws 1193



Digital Calipers With Carbide Tipped Jaws 1110



Mini Digital Calipers 1111



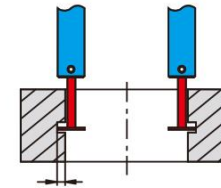
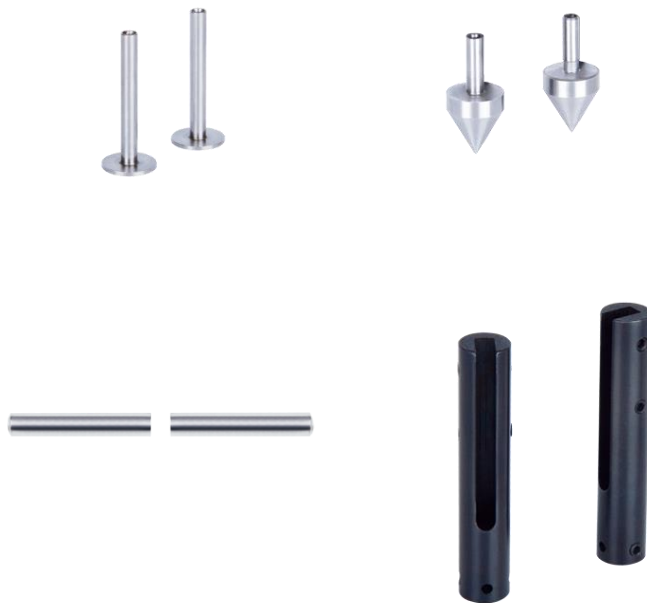
Plastic Digital Caliper 1139



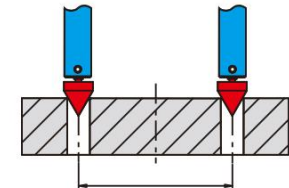
Digital Calipers 1106

Accessory Set For Digital Calipers 6144

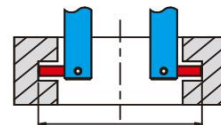
- Suitable for 0-150mm and 0-200mm digital calipers (thickness of lower jaws<3.7mm)
- Suitable for 0-300mm digital calipers (thickness of lower jaws<4.0mm)



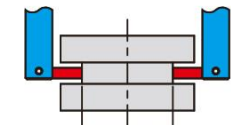
measuring internal
groove diameter



measuring center
distance



spherical points for groove diameter
(inside hole) measurement



flat points for external
groove diameter measurement

Universal Calipers 1125

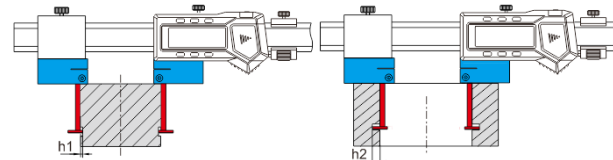
Working with stands



Working with measuring jaws



Half Disk Points

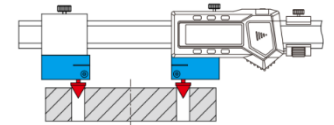


measuring external groove diameter with flat measuring face

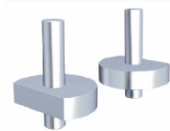
measuring internal groove diameter with spherical measuring face



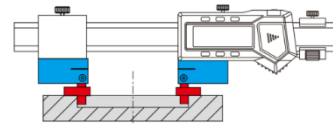
Conical Points



measuring center distance



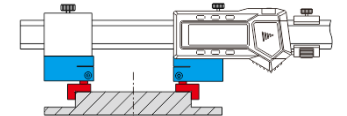
Round Shoulder Points



measure inside diameter of shallow hole



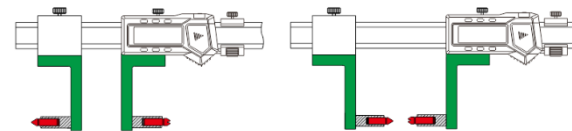
Flat Shoulder Points



measure outside diameter of low boss



Point Sleeve



working with multifunctional points, ball points and screw thread points

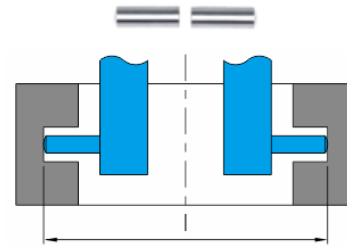
- Range : 0-1000mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.05\text{mm}/\pm 0.07\text{mm}$

Digital Calipers With Interchangeable Points

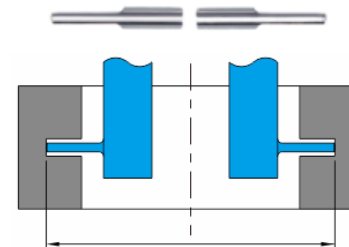
1526



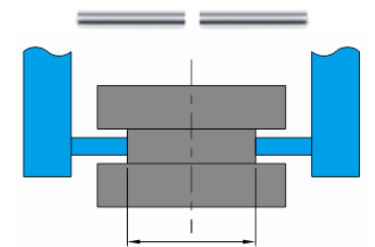
- Range : 0-200mm
- Resolution : 0.01mm
- Accuracy : ± 0.03 mm



spherical points for groove (inside hole) measurement



spherical blade points for narrow groove (inside hole) measurement



flat points for external groove measurement

1124



- Range : 0-300mm
- Resolution : 0.01mm
- Accuracy : ± 0.04 mm

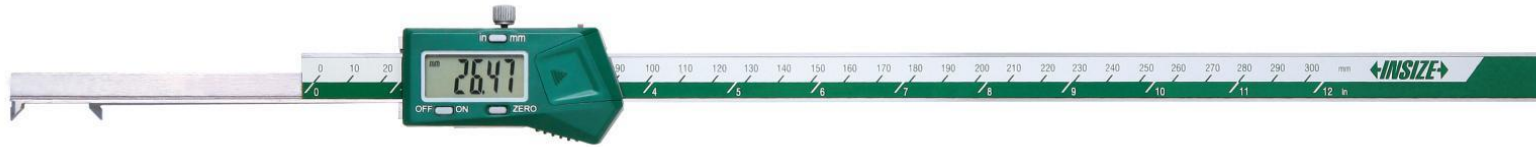
Multifunctional Points



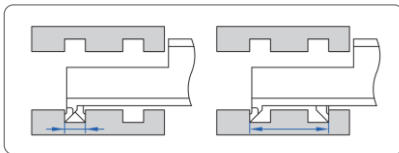
depth stop

Digital Hook Calipers 1122 / 1164

Measure width and distance of grooves inside bores

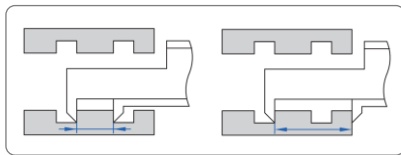


DATA
OUTPUT



- Range : 3-300mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.03\text{mm} / \pm 0.04\text{mm}$

Measure width and distance of grooves inside bores



- Range : 0-300mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.03\text{mm} / \pm 0.04\text{mm}$

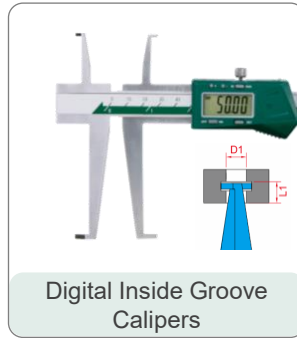
Special Purpose Calipers



Digital Inside Groove Calipers



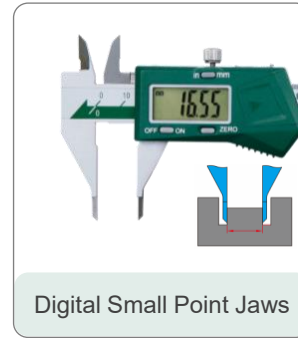
Digital Inside Point Calipers



Digital Inside Groove Calipers



Digital Outside Point Calipers



Digital Small Point Jaws



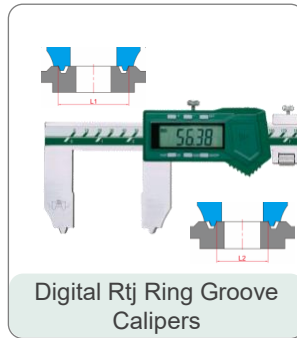
Digital Inside Knife-edge Calipers



Digital V Shape Caliper



Digital Offset Calipers



Digital Rty Ring Groove Calipers



Digital Crimp Height Calipers



Digital Calipers With Large Measuring Faces



Digital Arc Radius Calipers

Depth Measuring Tools



Digital Depth Gauges



Dial Depth Gauges



Vernier Depth Gauges



Extension Bases



Mini Depth Gauges



Depth Gauges



Depth Micrometers



Measuring Tools Dynamometers



Depth Micrometer Checkers

Digital Depth Gauges



IP67 Waterproof Digital Depth Gauges 1149



Digital Depth Gauges (Standard Type) 1141



Digital Hook Depth Gauges 1142



Digital Double Hook Depth Gauges 1144



Digital Double Hook Depth Gauge 1540



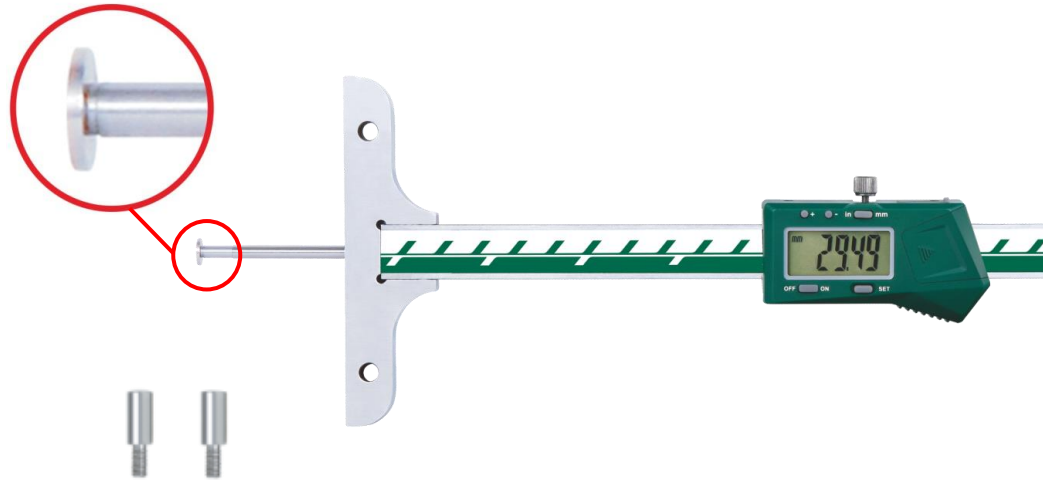
Digital Point Depth Gauges 1143



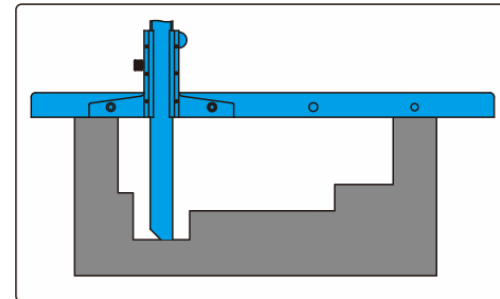
Mini Digital Depth Gauges With Round Bar 1140

Digital Depth Gauges With Round Depth Bar 1148

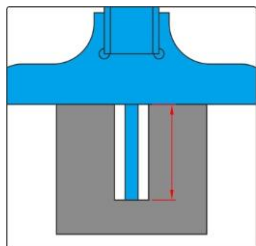
- Range: 0-100mm, 0-120mm (one-hand use), 0-200mm, 0-300mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.02\text{mm} \sim \pm 0.03\text{mm}$



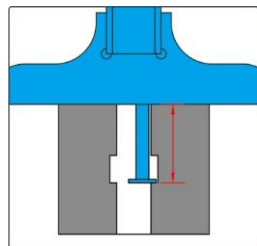
Extension base (optional)



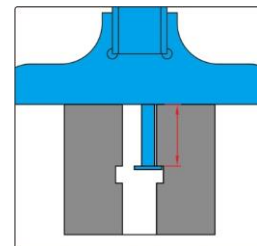
Measure depth of small holes ($>\phi 4\text{mm}$)



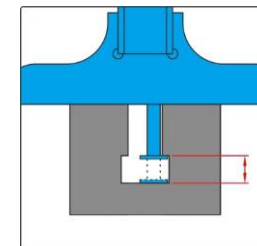
Measure depth of grooves inside bore



Measure depth of grooves inside bore



Measure width of grooves inside bore



Height Measuring Tools



Manual Height Gauges



Digital Height Gauges



Dial Indicator Stands



Height Gauges



Height Gauge Checkers

Manual Height Gauges

2D



DHG-V410/V710

with air cushion

- Measuring range : 0-407mm/0-711mm
- Expandable measuring range : 719mm/1023mm
- Accuracy(at 20°C) : 4.5µm/6µm

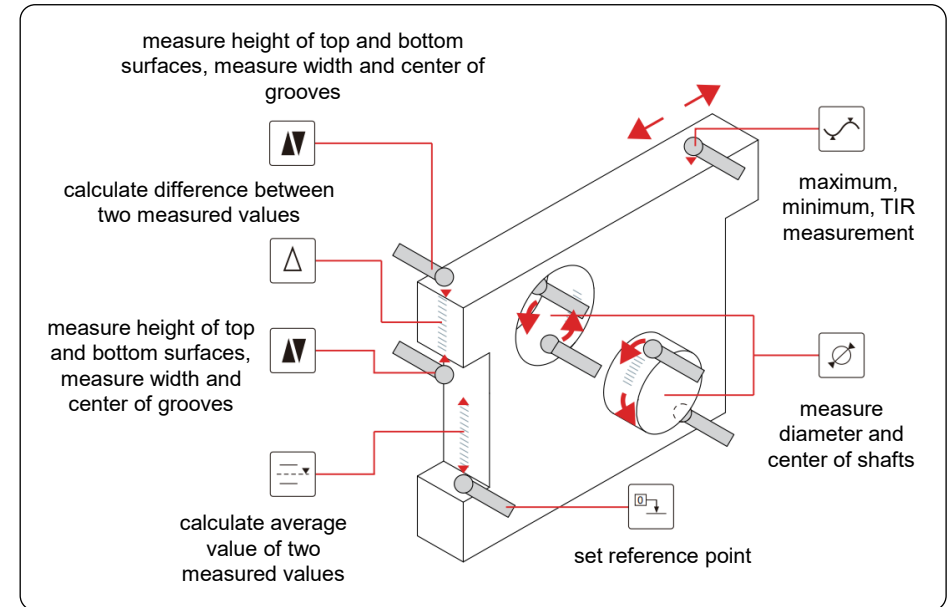
1D



ISHH-V400/V700

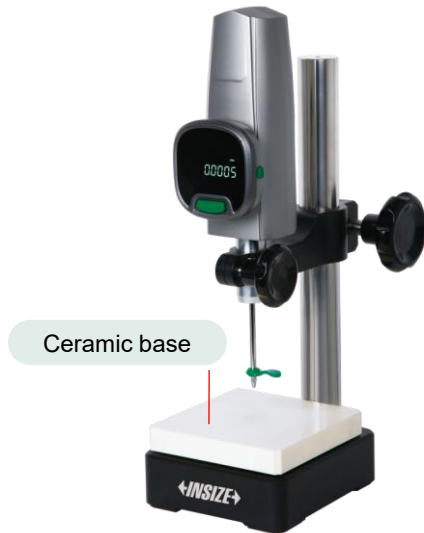
without air cushion

- Measuring range : 0-407mm/0-711mm
- Expandable measuring range : 508mm/812mm
- Accuracy(at 20°C) : 5µm/6µm



Digital Height Gauges

High Precision Digital Height Gauges 1155



- Range: 0-50mm
- Resolution: 0.5 μ m(can switch to: 1 μ m) / 0.1 μ m(can switch to: 1 μ m)
- Accuracy (20°C): 1.5 μ m/1 μ m

Digital Height Gauges 1157



- Range: 0-50mm
- Resolution: 1 μ m
- Accuracy (20°C): 3 μ m

Large Range Digital Height Gauge 1158



- Range: 0-100mm
- Resolution: 0.1 μ m (can switch to: 1 μ m)
- Accuracy (20 °C): 3 μ m

Height Gauges



Digital Height Gauges 1150



Digital Height Gauges With Driving Wheel 1156



Digital Height Gauges 1151



Dial Height Gauges 1351



Mini Digital Height Gauges 1154



Vernier Height Gauges 1250

Comparison Measuring Tools



Universal Comparison Gauges



Carbon Fiber Comparison Gauges



Universal Comparison Measuring Benches



Comparison Gauges



Internal/External Measuring Gauges

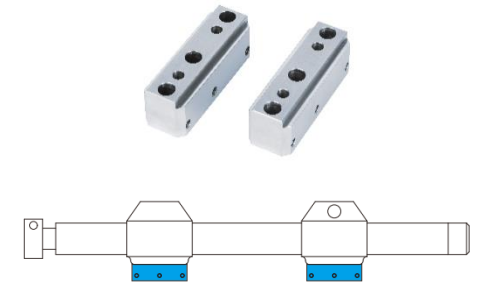


Screw Thread Comparators

Universal comparison Gauge 2927 (P1)



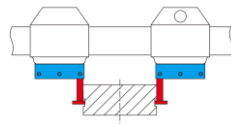
internal/external diameter measurement switch



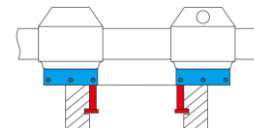
Stands (Optional, Supplied In Pair)



Half Disk Points (Optional, Supplied In Pair)



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



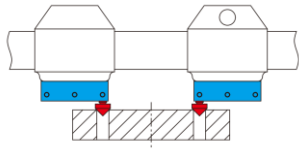
measuring internal groove diameter with spherical measuring face (depth≤7.5mm)

- Range of external diameter: 0-200mm
- Range of internal diameter: 30-250mm
- Maximum measuring range: 500mm (optional extension rods)
- Repeatability: 2µm
- Accuracy: ±5µm

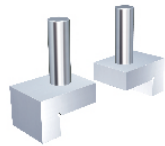
Universal comparison Gauge 2927 (P2)



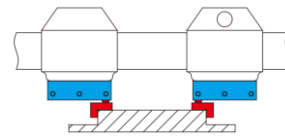
Conical Points



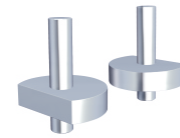
measuring center distance



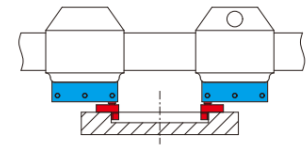
Flat Shoulder Points



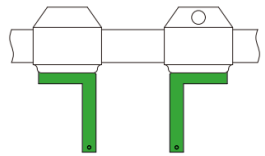
measure outside diameter of low boss



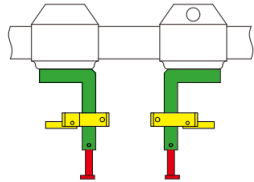
Round Shoulder Points



measure inside diameter of shallow hole



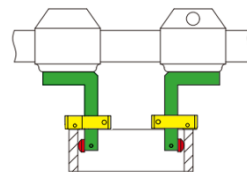
Measuring Jaws



Depth Stop



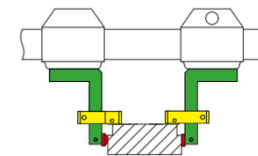
Spherical Point



measure inside diameter (2 spherical points)



Flat Point



measure outer diameter (1 spherical point, 1 flat point)



V-shaped Placement Brackets



Points



Multifunctional Points



Ball Points



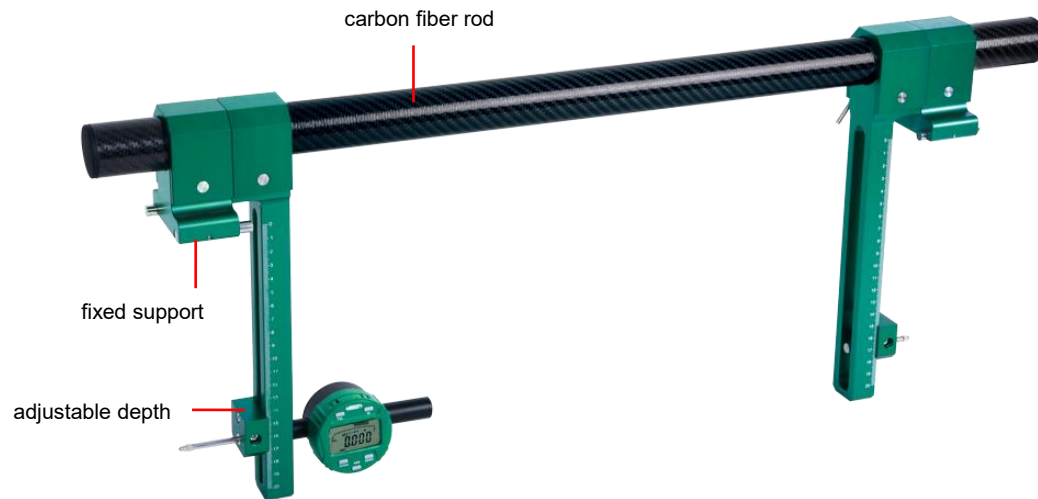
External Thread Points



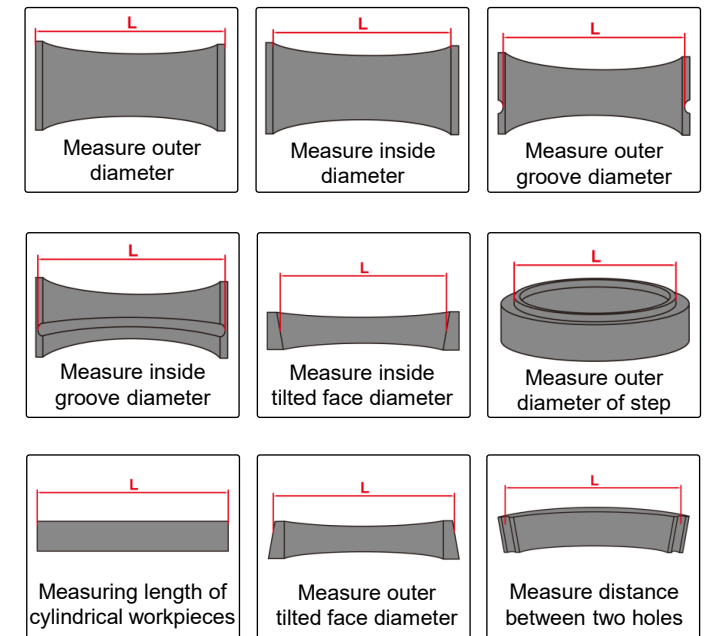
Internal Thread Points

Carbon Fiber Comparison Gauges 2931

Measure outer diameter, inside diameter, holes distance and cylindrical workpiece length



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

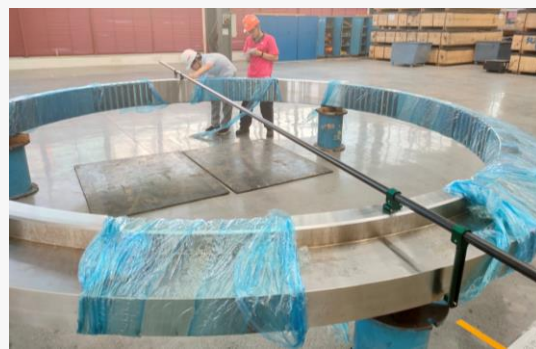


- Maximum measuring range (L): 9000mm
- Measuring depth (H): 0-300mm
- Repeatability: 5 μ m-120 μ m

Carbon Fiber Comparison Gauges 2931--Application



Measure outer diameter



Measure inside diameter



Set zero



Measurement of the inner and outer diameter of bearings, measuring dimensions 3m, 4m, 6m.

Horizontal Measuring Bench 6849

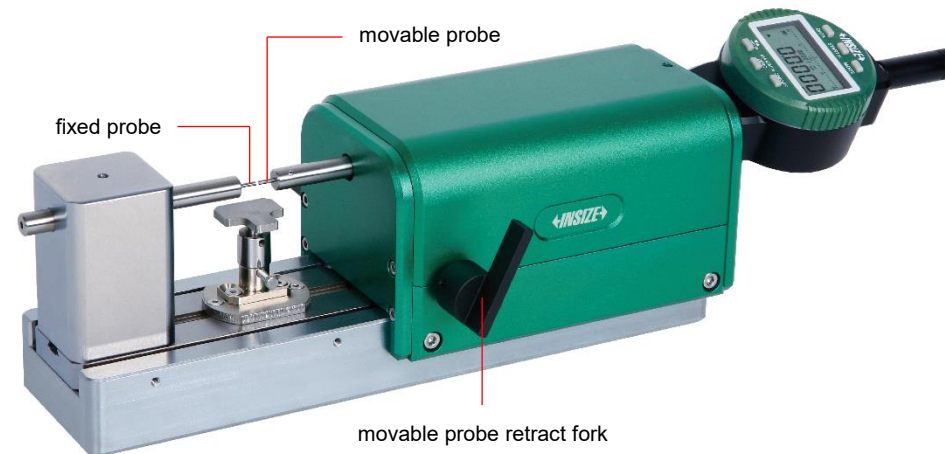
- Quickly measure outside diameters
- The platform can move horizontally and the height is adjustable
- For left and right hand operation
- Carbide probes
- Digital indicator uses linear ball bearings and can be used ten million times

MEASURING FORCE CAN BE CUSTOMIZED,
MINIMUM MEASURING FORCE IS 2N

DATA
OUTPUT

DIGITAL INDICATOR USES ABSOLUTE ENCODER,
THE ORIGINAL DATA REMAINS AFTER POWER OFF

PROBE AND PLATFORM
CAN BE CUSTOMIZED

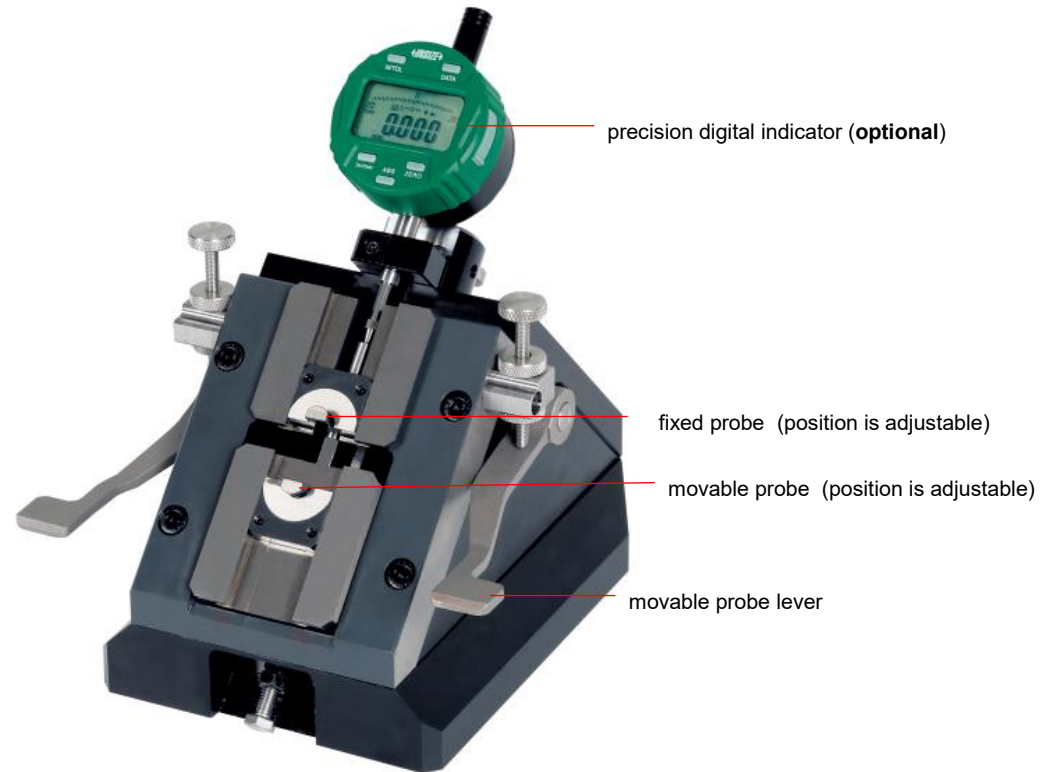


- Range: 0-50mm
- Movable probe travel: 20mm
- Resolution: 0.0002mm
- Accuracy: 5 μ m

Internal Comparison Measuring Bench 6831

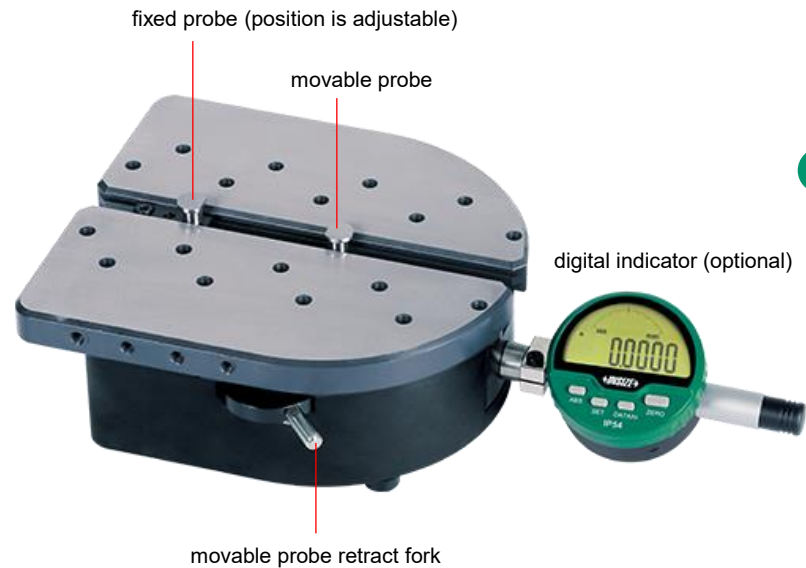
PROBE
CAN BE CUSTOMIZED

Application



- Range (ØD) : 12-90mm
- Movable probe Stroke : 5mm
- Accuracy : 5µm
- Repeatability : 2µm

Universal comparison Measuring Bench 6848



- Range of external diameter: 0-100mm
- Range of internal diameter: 25-120mm
- Repeatability(without digital indicator) : 2μm
- Accuracy(without digital indicator): 5μm



Internal Groove Probes



Internal Groove Probes Holders



Disk Probes



Probe Holders



Probes



Multifunctional Probes



Ball Probes



External Thread Probes



Internal Thread Probes



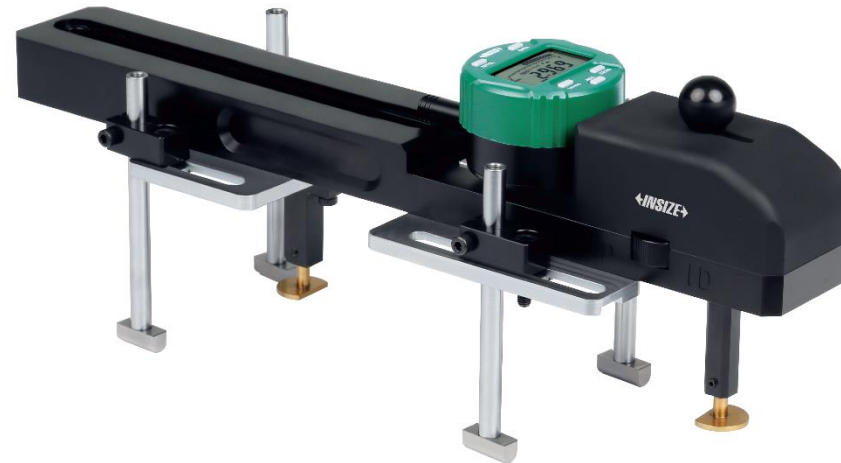
Spacer Blocks

Digital Comparison Gauges 2514-300

Measure internal diameter and external diameter

CAN BE
CUSTOMIZED

DATA
OUTPUT



Contact points (included, supplied in pair)



- Range of internal/ external diameter: 100-300mm
- Contact point Stroke: 10mm
- Accuracy: 5 μ m
- Repeatability: 2 μ m

Comparison Gauges 2252



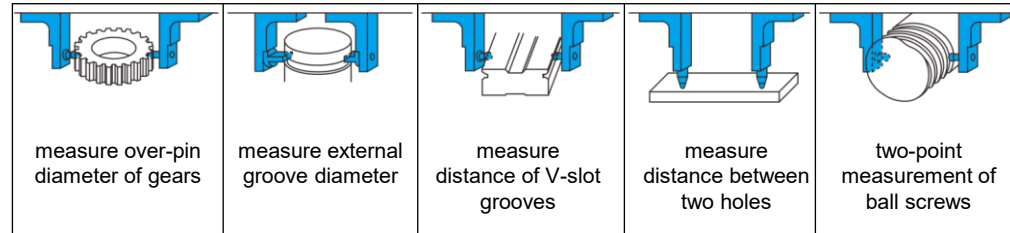
Measure external diameter



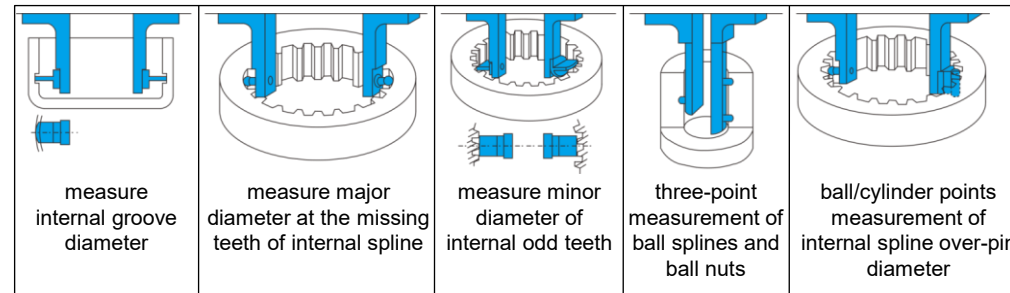
Measure internal diameter

External diameter measurement application

CUSTOMIZABLE MEASURING JAWS AND POINTS



Internal diameter measurement application



- Range of external diameter : 0-90mm
- Range of internal diameter : 40-150mm
- Repeatability : 2µm
- Measure external diameter, internal diameter and over-pin diameter of gears
- Accuracy : ±5µm
- Movable point stroke : 8mm
- Effective range of movable point : ±1mm

Digital Measuring Gauges (Small Range)

DATA
OUTPUT

Digital Internal Measuring Gauges 2932



Digital External Measuring Gauges 2934

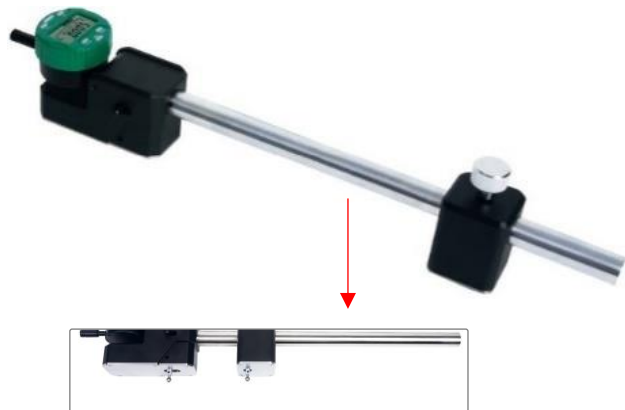


- Measuring range : External : 13-38mm
- Resolution : 0.001mm
- Internal : 24-50mm
- Point height is adjustable, h=2-25mm
- Movable point stroke : 5mm
- Repeatability : 1 μ m
- Accuracy : 5 μ m

Digital Measuring Gauges (Large Range)

DATA
OUTPUT

Large Range Digital Internal Measuring Gauges 2933



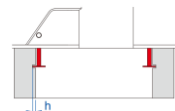
Large Range Digital External Measuring Gauges 2935



- Measuring range : External : 35-320mm
Internal : 48-330mm
- Movable point stroke : 5mm
- Accuracy : 5 μ m

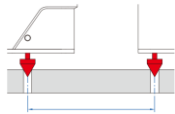
- Resolution: 0.001mm
- Point height is adjustable, h=2-25mm
- Repeatability :1 μ m

Digital Measuring Gauges (Optional Probe)



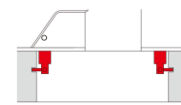
Disk Points

measuring internal groove diameter



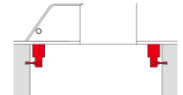
Conical Points

measuring center distance



Spherical Points

spherical points for groove (inside hole) measurement



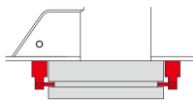
Spherical Blade Points

spherical blade points for narrow groove (inside hole) measurement



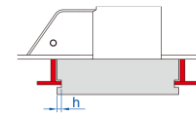
Ball Points

ball points for internal diameter measurement



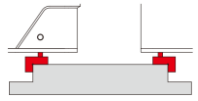
Spherical/Flat Points

flat points for external groove diameter measurement



Disk Points

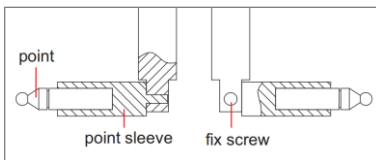
measuring external groove diameter



Flat Shoulder Points

measure outside diameter of low boss

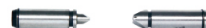
installation



Point Sleeve



Screw Thread Points



Screw Thread Points



Ball Points



Multifunctional Points



Ball Screw/Ball Nut Pitch Circle Diameter Comparators

PROBE AND CALIBRATION PLUG GAUGE
NEED TO BE CUSTOMIZED ACCORDING TO THE WORKPIECE

DATA
OUTPUT

Ball Screw Pitch Circle Diameter
Comparators 2677

- Range : 6-50mm
- Contact point opening range : 6-15mm
- Effective stroke of anvil : 0.1mm
- Accuracy : 0.005mm
- Repeatability : 0.002mm
- Adjustable resolution : 0.0005mm/ 0.001mm/ 0.01mm



PROBE AND CALIBRATION RING GAUGE
NEED TO BE CUSTOMIZED ACCORDING TO THE WORKPIECE

DATA
OUTPUT

Ball Nut Pitch Circle Diameter
Comparators 2678

- Range : 6-50mm
- Contact point opening range : 6-15mm
- Effective stroke of anvil : 0.1mm
- Accuracy : 0.005mm
- Repeatability : 0.002mm
- Adjustable resolution : 0.0005mm/ 0.001mm/ 0.01mm



Micrometers (P1)



Digital Micrometers/Snap Gauges



Wireless Waterproof Digital Outside Micrometers



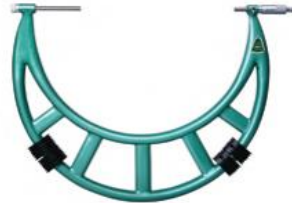
Quick Feeding Digital Outside Micrometers



Digital Micrometers



Outside Micrometers



Large Outside Micrometers



Indicating Micrometers



Micrometers With Dial Indicator



Groove Micrometers



3-Wires



Special Purpose Micrometers



Optical Parallels

Micrometers (P2)



Parallelism Inspect Devices For Outside Micrometers



Measuring Tools Dynamometers



Micrometer Measuring Force Detectors



Micrometer Inspection Gauge Block Sets



Micrometer Stands



Micrometer Setting Standards



Micrometer Lapping Machines



Micrometer Heads

Digital Micrometers/Snap Gauges

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

MEASUREMENT ACCURACY IS NOT AFFECTED BY THE USE OF SLEEVE

NON-ROTATING SPINDLE



High Precision Digital Micrometer/Snap Gauges 3359

- Resolution: 0.0001mm
- Range: 0-25mm
- Accuracy: $\pm 0.5\mu\text{m}$
- Repeatability: 0.3 μm



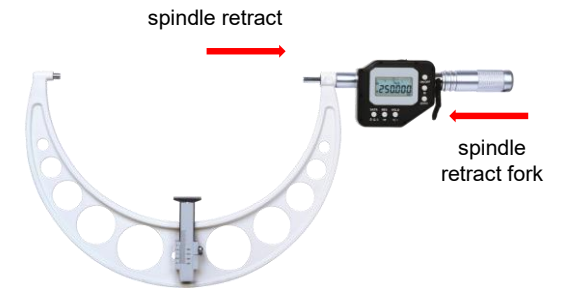
Digital Micrometers/Snap Gauges 3358

- Resolution: 0.001mm
- Range: 0-100mm
- Accuracy: 2 μm /3 μm
- Repeatability: 1 μm



Digital Micrometers/Snap Gauges 3350

- Adjustable resolution: 0.0002mm/0.001mm/0.01mm
- Range: 0-100mm
- Accuracy: 1.4 μm -2 μm
- Repeatability: 0.6 μm /1 μm



Digital Micrometers/Snap Gauges 3351

- Adjustable resolution: 0.0002mm/0.001mm/0.01mm
- Range: 100-300mm
- Accuracy: 3 μm -6 μm
- Repeatability: 1 μm

Outside Micrometers



Waterproof Digital Outside Micrometers 3101



Digital Vertical Micrometers 3565



Outside Micrometers 3203



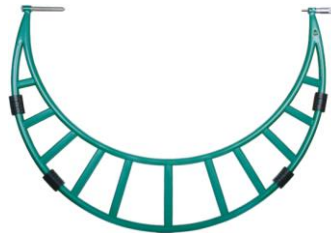
Outside Micrometer With Counter 3400



Outside Micrometers For Left or Right Handers 3236



Digital outside Micrometers with Interchangeable Anvils 3506



Outside Micrometer With Extension Anvil collar 3205



Indicating Micrometers 3332



Micrometers With Dial Indicator 3331

Digital Indicating Micrometers

IP54
WATERPROOF

BUILT-IN
BLUETOOTH

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF



Bluetooth Digital Indicating Micrometers 3507

Micrometer head
• Range : 0-100mm
• Accuracy : 3 μ m

Digital indicator
• Range : \pm 0.04mm
• Accuracy : \pm 1 μ m

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

IP54
WATERPROOF



Digital Indicating Micrometers(Without Data output) 3508

Micrometer head
• Range : 0-100mm
• Accuracy : 3 μ m

Digital indicator
• Range : \pm 0.04mm
• Accuracy : \pm 1 μ m

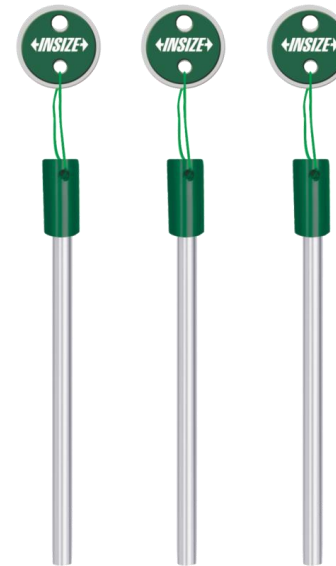
3-WIRES

3-wires 7382



- Pin gauge diameter : $\text{Ø}0.170\text{mm}-\text{Ø}3.200\text{mm}$
- Diameter accuracy : $\pm 0.5\mu\text{m}$
- Cylindricity : $1\mu\text{m}$
- Hardness : HRC60

3-wires (Made Of Alloy Steel) 7394



CUSTOMIZABLE
DIAMETER $\text{Ø}d$

- Diameter ($\text{Ø}d$) : $0.170\text{mm}-3.200\text{mm}$
- Hardness:
 - HRC60 : $\text{Ø}d \leq 0.3\text{mm}$, made of alloy steel
 - HRA90 : $\text{Ø}d > 0.3\text{mm}$, made of carbide
- Diameter accuracy: $\pm 0.5\mu\text{m}$
- Cylindricity: $0.5\mu\text{m}$

Screw Thread Micrometers



External Screw Thread Micrometers 3680

- Graduation : 0.01mm
- Range : 0-300mm



Digital External Screw Thread Micrometers 3680

- Graduation : 0.01mm
- Range : 200-2000mm



Screw Thread Micrometers 3281

- Graduation : 0.01mm
- Range : 0-300mm



Digital Screw Thread Micrometers 3581

- Resolution : 0.001mm
- Range : 0 -300mm

Gear Tooth Micrometers



External Gear Tooth Micrometers 3636

- Graduation : 0.01mm
- Range : 0-600mm



Gear Tooth Micrometers 3291

- Graduation : 0.01mm
- Range : 0-275mm



Digital Gear Tooth Micrometers 3591

- Resolution : 0.001mm
- Range : 0-275mm

Disk Micrometers



Disk Micrometers 3676



Large Range Disk Micrometers 3677



Disk Micrometers 3282



Digital Non-Rotating Spindle Disk Micrometers 3594



Digital Disk Micrometers/snap Gauges 3353

Special Purpose Micrometers



Digital Point Micrometers
3530



Digital Crimp Height
Micrometers 3566



Digital Spline Micrometers
3533



Digital Disk Brake
Micrometers 3588



Digital Sheet Metal
Micrometers 3539



Digital Interchangeable
Anvil Micrometers 3562



Digital Large Anvil
Micrometers 3534



Digital V-Anvil
Micrometers 3590



Digital Universal
Micrometers 3580



Digital Jaw Type
Micrometers 3583



Sheet Metal
Micrometers 3263



Hub Micrometers
3292



Wire Micrometer
3285



Can Seam
Micrometers 3293

Bore Diameter And Circumference Measurement Tools (P1)



Inside Micrometers



Inside Micrometers



Three Points Internal Micrometers



Pistol Grip Three Points Bore Gauges



Bore Plug Gauges



Stand For Split Type Dial Bore Gauges



Gear Bore Gauges



Split Type Dial Bore Gauges



Bore Gauges



Carbon Fiber Bore Gauges



Large Range Bore Gauges



Bore Gauge Setters

Bore Diameter And Circumference Measurement Tools (P2)



Internal Groove Bore Gauges



Pistol Grip Groove Bore Gauges



Internal Chamfer Gauges



Telescoping Gauge Sets



Tape Bore Meters



Diameter Meters



Diameter Meters



Circumference Meters

Internal Gear Tooth Micrometers



Internal Gear Tooth Micrometers 3678

- Range : 25-75mm
- Graduation : 0.01mm



Internal Gear Tooth Micrometers 3638

- Range : 100-1150mm
- Micrometer head Range : 100-175mm
- Micrometer head Graduation : 0.01mm



Ball Tips For Gear Tooth Micrometers (optional)

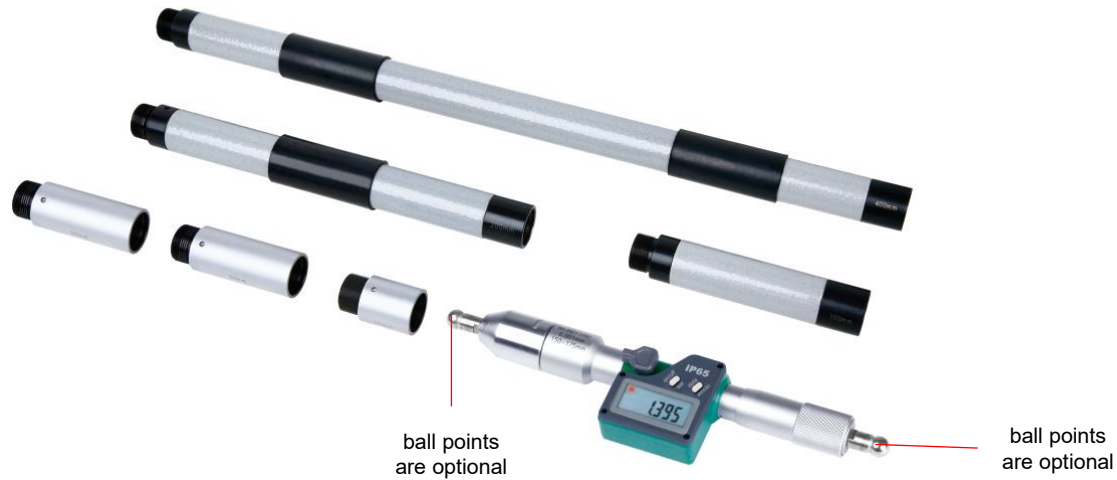
- Ball dia. (SØD) : SØ1-16mm
- Accuracy : $\pm 1\mu\text{m}/\pm 1.5\mu\text{m}$

Digital Tubular Inside Micrometers With Interchangeable Points 3525

DATA
OUTPUT

IP65
WATERPROOF

POINTS CAN BE
CUSTOMIZED



- Range : 200-2050mm
- Travel of micrometer head : 25mm
- Resolution : 0.001mm
- Accuracy : $(3+n+L/50)\mu\text{m}$
n=number of rods
L=maximum measuring length (mm)

Pistol Grip Three Points Bore Gauges 2124



digital indicator is optional



Extension rod (included)



Setting ring

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

- Range : 6-300mm
- Accuracy (without digital indicator) : 4 μ m-9 μ m

Snap-Open Digital Three Points Bore Gauges 3129



IP54
WATERPROOF

BUILT-IN
BLUETOOTH



extension rod (included)



setting ring

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

- Range : 6-300mm
- Accuracy : 4 μ m-9 μ m

Two Points/Three Points Internal Micrometers

Digital Two Points/Three Points Internal Micrometers 3127



- Resolution : 0.001mm
- Range : 2-300mm
- Accuracy : 4 μ m-9 μ m

Two Points/Three Points Internal Micrometers 3227



- 2-12mm: graduation 0.001mm
- 12-300mm: graduation 0.005mm
- Range : 2-300mm
- Accuracy : 4 μ m-9 μ m

Bore Plug Gauges 4653



- Range : 2-130mm
- Repeatability : 0.0005mm/0.001mm



- Range : 130.1-300mm
- Repeatability : 0.002mm



Handle (retraction button)



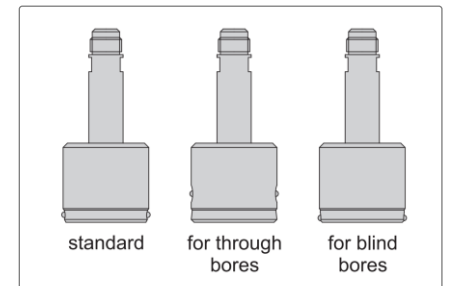
Depth stop (set measuring depth)



90° Adapter



Handle for inductive probe

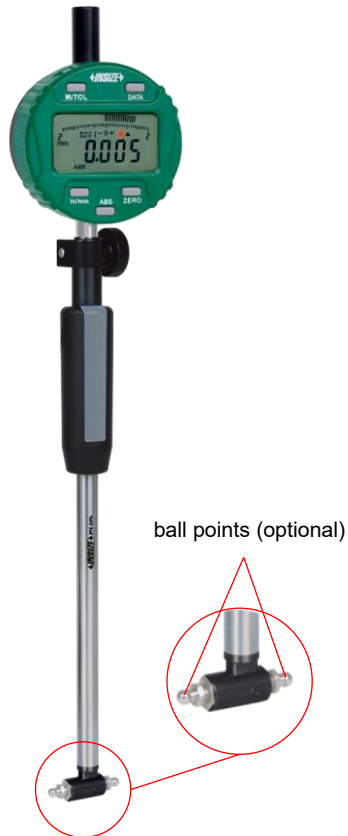


Bore Plug Gauges 4653--Application



Quickly measure the internal diameter of the differential and upload the data

Gear Bore Gauges 2428



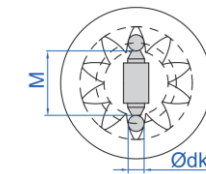
- Range : 8-510mm
- Accuracy (without dial comparator) : 2 μ m
- Repeatability (without dial comparator) : 0.5 μ m

Ball Points (Optional)

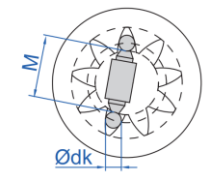


- Ball point diameter $\varnothing dk$: 1-10mm
- in pair

Method of measurement



even number
of teeth



odd number
of teeth

Gear Bore Gauges 2428 --Application



Measure the span measurement of the internal spline gear

Split Type Dial Bore Gauges

Split Type Dial Bore Gauges 2426

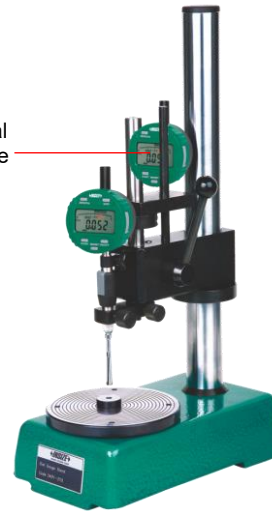


Split Type Dial Bore Gauges For Blind Holes 2427



Stand For Split Type Dial Bore Gauges 2491

Can hold digital/dial indicator to read the measuring value



Floating holder—Suitable for automatic measurement



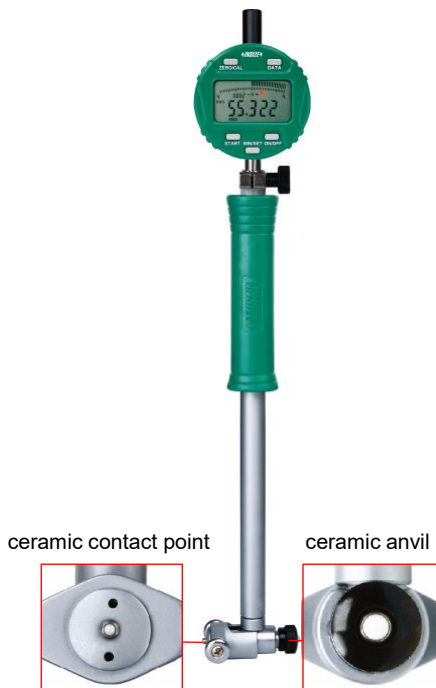
Holder (retraction button)



- Measuring range : 0.95-20.6mm
- Accuracy (without indicator) : 3µm/4µm/4.5µm/6µm
- Repeatability (without indicator) : 1µm
- Split type contact points

Bore Gauges (P1)

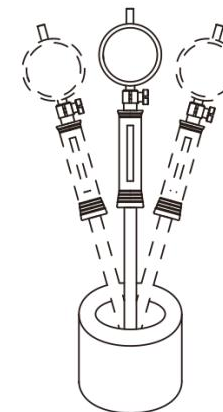
Bore Gauges (With Digital Indicator)



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

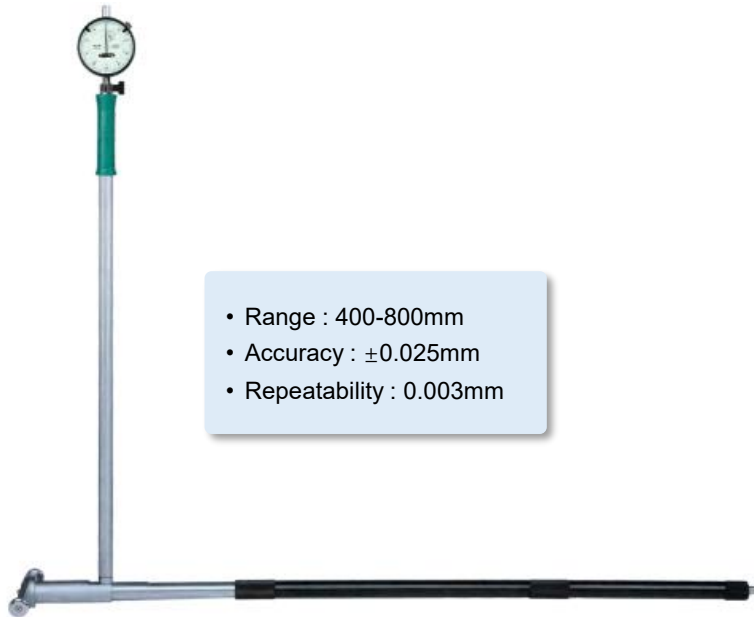


the minimum value tracking function can find the diameter automatically



Bore Gauges (P2)

Bore Gauges (With Dial Indicator) 2828

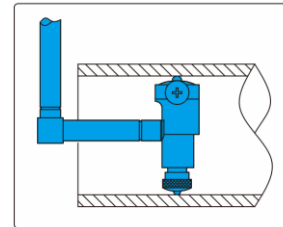


- Range : 400-800mm
- Accuracy : $\pm 0.025\text{mm}$
- Repeatability : 0.003mm

Bore Gauges (With Dial Indicator) 2827



Application



- Range : 35-450mm
- Accuracy : $\pm 0.018\text{mm}$
- Repeatability : 0.003mm

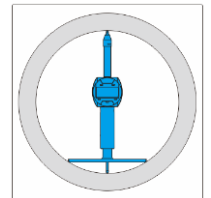
Large Range Bore Gauges 2330



extension rods



Application



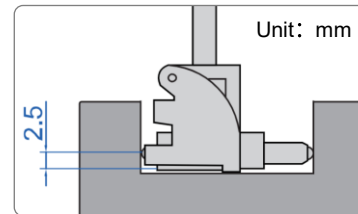
- Range : 180-510mm
- Accuracy (without dial indicator) : $7\mu\text{m}$
- Repeatability (without dial indicator) : $2\mu\text{m}$

Bore Gauges (P3)

Bore Gauges For Blind Holes 2420/2220



Application

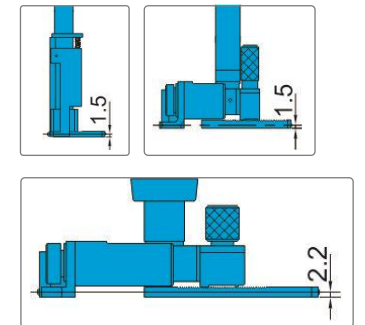


- Range : 35-60mm
- Accuracy : $\pm 0.018\text{mm}$
- Repeatability : 0.003mm

Bore Gauges For Blind Holes 2424



Application



- Range : 20-600mm
- Accuracy (without dial indicator) : $4\mu\text{m}$
- Repeatability (without dial indicator) : $1\mu\text{m}$

Bore Gauges (P4)

Bore Gauges For Barrier Inside Bores 2432



Application

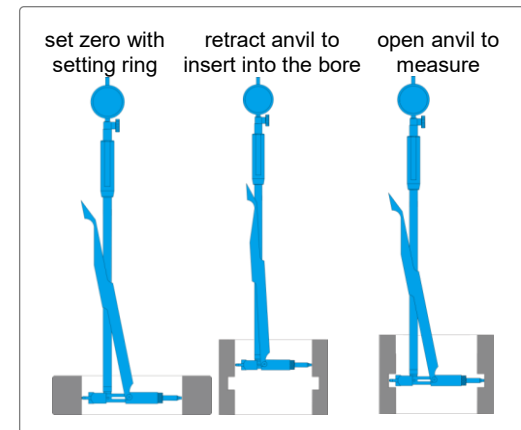


- Range : 25-500mm
- Accuracy (without dial indicator) : 0.01-0.02mm

Internal Groove Bore Gauges 2433



Application



- Measure diameter of internal grooves (width of groove > 3mm)
- Range : 60-300mm
- Accuracy (without dial indicator) : 2µm
- Repeatability (without dial indicator) : 1µm

Carbon Fiber Bore Gauges With Interchangeable Points 3526

POINTS CAN BE
CUSTOMIZED

SPRING LOADED
MEASURING POINT

DATA
OUTPUT

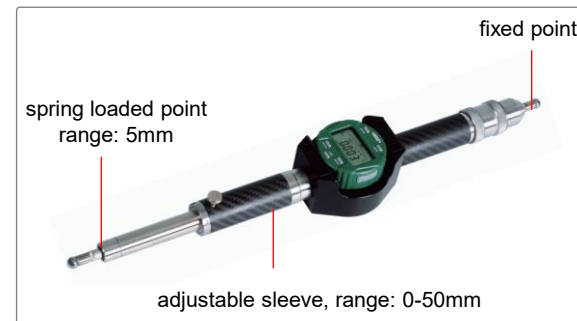
CARBON FIBER EXTENSION RODS, LIGHT WEIGHT,
NOT EASY TO DEFORM, LOW THERMAL EXPANSION



430mm standard setting gauge (included)
for micrometer head zero setting



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



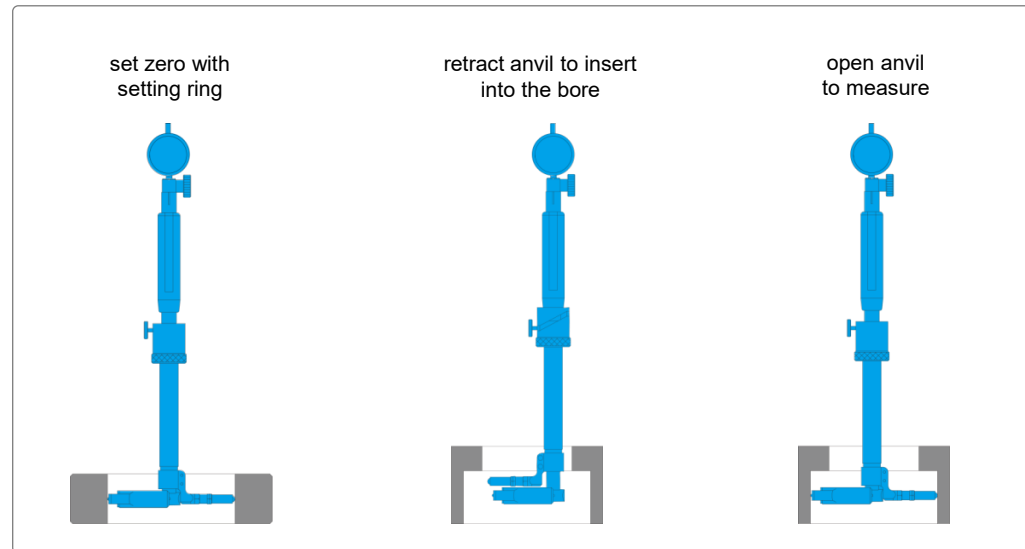
- Range : 430-6430mm
- Micrometer head Range : 430-480mm
- Micrometer head Resolution : 0.001mm/0.00005"
- Micrometer head Accuracy : $\pm 6\mu\text{m}$
- Micrometer head Repeatability : $\pm 3\mu\text{m}$

Rotary Bore Gauges 2921



180° rotatable fixed anvil

Application



- With rotary anvil, applicable to measure bores with large inner diameter and small opening
- Range : 30-530mm
- Accuracy (without dial indicator) : 2 μ m/3 μ m
- Repeatability (without dial indicator) : 1 μ m/1.5 μ m

Pistol Grip Groove Bore Gauges 2436

FAST MEASURING INNER
DIAMETER OF DEEP GROOVES

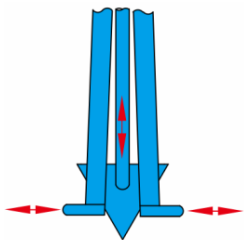


Depth stop (optional)

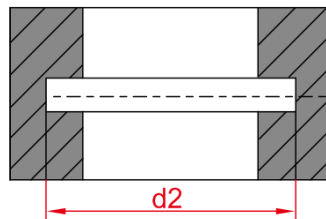


Extension rods (optional)

principle of measurement



applicable
workpieces



- Range : 6-200mm
- Repeatability : 0.01mm
- Accuracy : 2% of deviation between workpiece size and setting ring, for example, when measuring $\text{\O}21\text{mm}$ inner groove, use a $\text{\O}20\text{mm}$ setting ring for calibration, accuracy is $(21-20) \times 2\% = 0.02\text{mm}$

Bore Gauge setters 7353



Application



Horizontal use



Gauge blocks for 7353-160



- Range : 0-160mm
- Repeatability : 1.2 μ m

Chamfer Gauges



2942

- Range : 0.5-40mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.02\text{mm}/\pm 0.04\text{mm}$



2962

- Range : 1-120mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.02\text{mm}$



2937 type A

- Range : 1-40mm
- Accuracy : $\pm 0.02\text{mm}/\pm 0.03\text{mm}$
- Resolution : 0.01mm



2937 type B

- Range : 20-40mm
- Accuracy : $\pm 0.02\text{mm}/\pm 0.03\text{mm}$
- Resolution : 0.01mm

Tape Bore Meters/Circumference Meters

Tape Bore Meters 2430



- Range $\varnothing D$: 14-330mm
- Graduation : 0.1mm
- Accuracy : ± 0.2 mm

Circumference Meters 7116



- Range : $\varnothing 20$ -620mm
- Graduation : 0.05mm
- Accuracy : ± 0.10 mm~ ± 0.20 mm

Diameter Meters 7135



- Diameter range : $\varnothing 9$ -9300mm
- Graduation : 0.01mm- 0.05mm

Arc Radius Measuring Tools



Outside Diameter Variation Measuring Instruments



Outside Diameter Measuring Instruments



Digital Radius Gauges



Digital Radius Gauges



Large Range Digital Radius Gauges



Digital Arc Radius Calipers

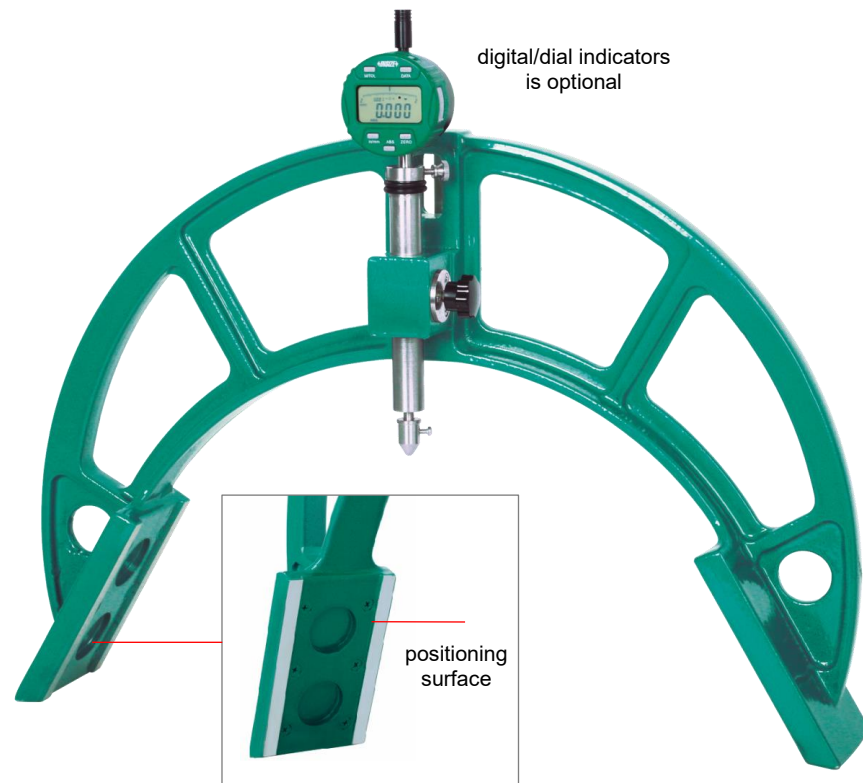


Digital Radius Calipers



Radius Gauges

Outside Diameter Measuring Instruments 2716

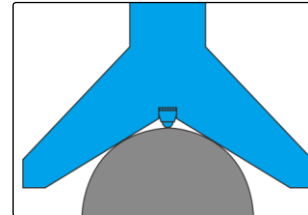


- Range (diameter) : 18-2000mm
- Repeatability : 0.01mm
- The frame is made of aluminum magnesium alloy with light weight and high strength

Digital Radius Gauges 2188



Application



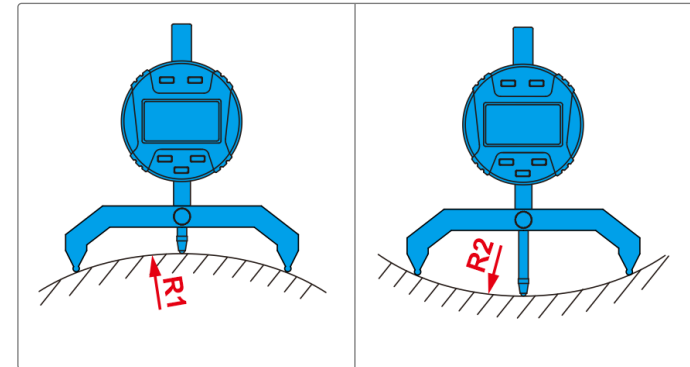
Setting standards



Application

- Range (radius) : 4-323mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.02\text{mm} \sim \pm 0.04\text{mm}$
- Measure radius of external arc, arc angle of measured surface should be larger than 60°
- Display radius value, no need to calculate
- Stainless steel base

Digital Radius Gauge 2511



- Range of external radius (R1) : 5-910mm
- Range of internal radius (R2) : 7-910mm
- Accuracy (mm) : $\pm 0.005R$
- Resolution : 0.01mm
- Measure radius of internal or external arcs
- Supplied with 5 jaws for different sizes of arc

Digital Radius calipers 1501



1501-25



1501-10

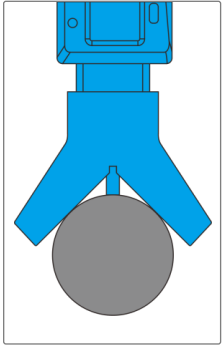
DIRECT READING,
CALCULATION IS NOT REQUIRED

DATA
OUTPUT

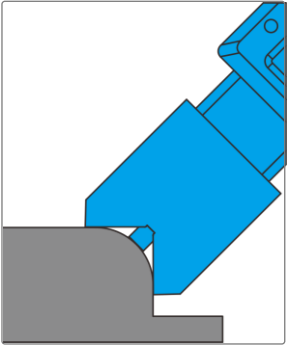
Pin gauge (included)



Application



1501-10 Can measure small workpieces
or workpieces with steps



Code	Range (radius)
1501-25	2-25mm
1501-10	2-10mm

- Measure radius of external arc, arc angle of measured surface should be larger than 90°
- Resolution : 0.01mm
- Accuracy : ±0.05mm

Keyway And Chamfer Measuring Tools



Keyway Symmetry Gauges



Keyway Symmetry Digital Calipers



Digital Keyway Depth Gauges



Digital Keyway Depth Gauges



Groove Micrometers



Digital Chamfer Gauges



Chamfer Gauges



Digital Chamfer Gauges



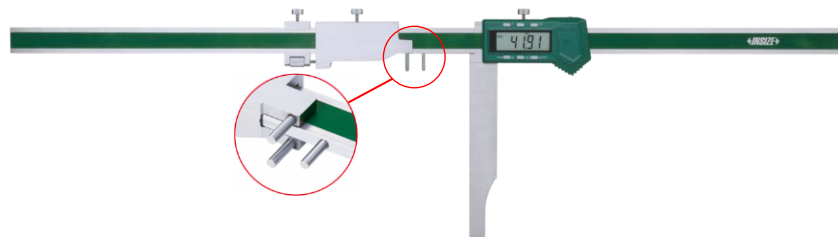
Chamfer Height Gauges

Keyway Symmetry Digital Calipers 1531

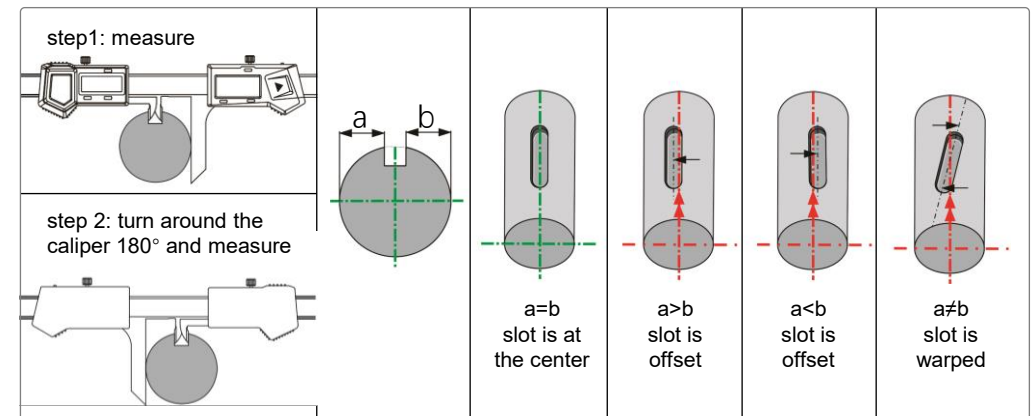


DATA
OUTPUT

- Width of keyway : 6-45mm
- Resolution : 0.01mm
- Can measure keyway width
- Diameter of shaft : $\varnothing 10-120\text{mm}$
- Accuracy : $\pm 0.05\text{mm}$
- Used to measure the symmetry of shaft keyways



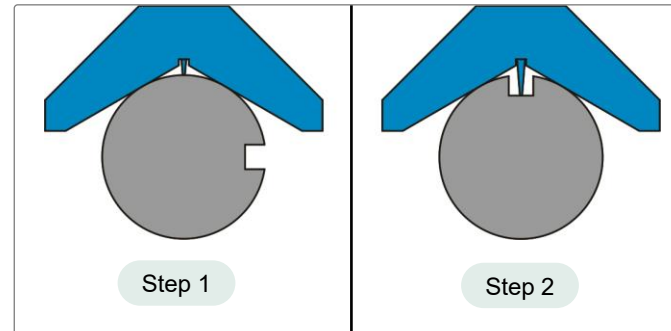
- Width of keyway : 3-250mm
- Resolution : 0.01mm
- Cannot measure keyway width
- Diameter of shaft : $\varnothing 6-350\text{mm}$
- Accuracy : $\pm 0.05\text{mm}$
- Used to measure the symmetry of shaft keyways



Digital Keyway Depth Gauge 2182



DATA
OUTPUT



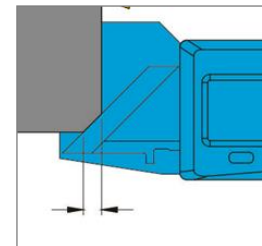
- Range : 0-25.4mm
- Resolution : 0.01mm
- Accuracy : ± 0.02 mm
- Measure keyway depth of cylindrical workpieces with diameter $\varnothing 10$ -100mm

Digital Chamfer Gauges 1180

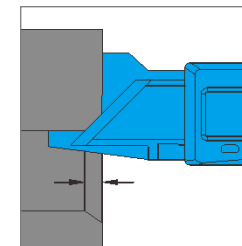
DATA
OUTPUT



External chamfer



Internal chamfer



- Measure 15°/20°/30°/45°/60° chamfer dimension
- Resolution : 0.01mm
- Range : 0-10mm
- Accuracy : ± 0.06 mm

Digital chamfer Gauges 1537



1537-20



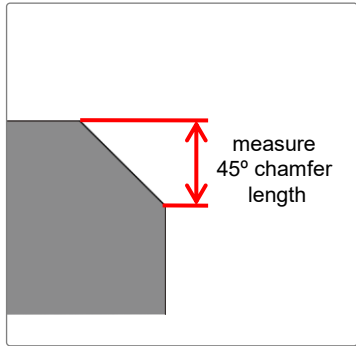
1537-8

DATA OUTPUT

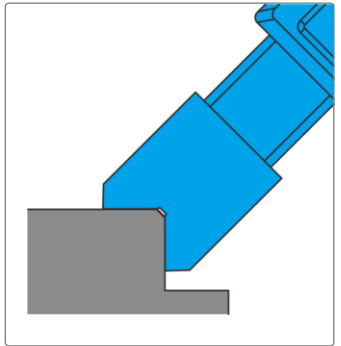
Pin gauge (included)



Application



1537-8 Can measure small workpieces or workpieces with steps



Code	Range
1537-20	0-20mm
1537-8	0-8mm

- Measure 45° chamfer length
- Resolution : 0.01mm
- Accuracy : ±0.05mm

Indicators And Dial Indicator Stands (P1)



Dial Test Indicators



Styli For Dial Test Indicators



Digital Indicators



Wireless Digital Indicators



Zeroing Foot Switches



High Precision Digital Indicators



Digital Comparators



Dial Indicators



Points



Lifting Levers



Spindle Lift Knob



Shaft Sleeve

Indicators And Dial Indicator Stands (P2)

←INSIZE→



Backs



Measuring Tools Dynamometers



Dial Indicator Tester/Extensometer Tester



Dial Indicator Testers



Dial Test Indicator Holders



Magnetic Stands



Dial Indicator Stands (Non-magnetic)



Dial Indicator Stands

Dial Test Indicators



Precision Dial Test Indicators 2880



Dial Test Indicator 2895



Long Stylus Dial Test Indicator 2896



Vertical Type Long Stylus Dial Test Indicator 2899



Side Type Dial Test Indicator 2898



Tilted Face Type Dial Test Indicator 2399



Large Range Dial Test Indicator 2386



Large Range Vertical Type Dial Test Indicator 2480

Digital Indicators



Digital Indicators (Standard Type) 2112



Digital Indicators (Advanced Type) 2103



Waterproof Digital Indicators 2115



Adjustable Coefficient Digital Indicators 2501



Compact Digital Indicators 2114



Back Plunger Type Digital Indicators 2118



Large Stroke Digital Indicators 2117



High Precision Digital Indicators 2133



High Precision Digital Indicators 2140

Digital Indicators For Bore Gauges

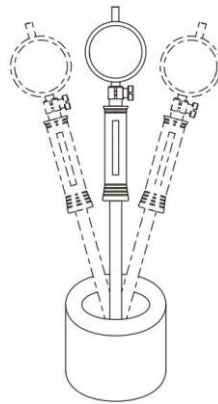
2108 (With Transmission Button and Signal Light)



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



the minimum value
tracking function can find
the diameter automatically.



2137



IP54
WATERPROOF

THE ORIGINAL DATA
REMAINS AFTER POWER OFF

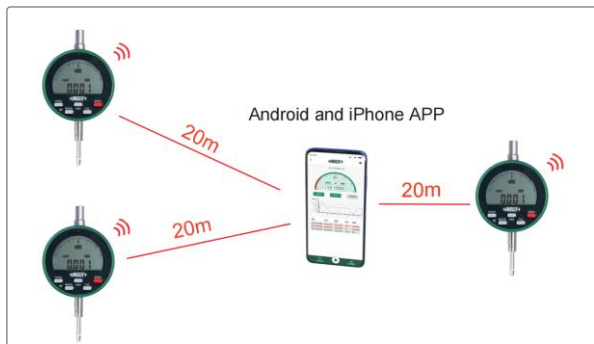
- Range : 12.7mm
- Accuracy : 5µm/20µm
- Hysteresis : 2µm/10µm
- Resolution : 0.001mm/0.002mm(can switch to:0.01mm)

Built-In Bluetooth Digital Indicators 2510

HIGH PRECISION

BUILT-IN BLUETOOTH

Application



over upper limit



within tolerance



over lower limit

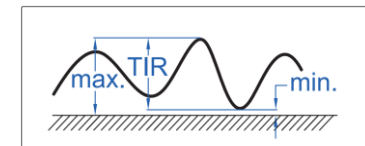


alarm when over tolerance

analog pointer



analog pointer



max./min./TIR measurement

- Range : 12.7mm
- Accuracy : 10µm/3µm
- Hysteresis : 10µm/2µm
- Resolution : 0.01mm/0.001mm
- Maximum measuring force : 1.5N

Precision Digital Indicators

High Precision Digital indicators 2140



**DATA
OUTPUT**

**LINEAR BALL BEARINGS
FOR TEN MILLION TIMES USE**

**Ø28MM STEM SUITABLE FOR
REINFORCED CLAMPING**

**ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF**

	2140	2150
Range	0-6mm	0-5mm
Adjustable resolution	0.2µm, 1µm, 10µm	0.1µm, 1µm, 10µm
Accuracy	1.6µm	0.5µm
Hysteresis	0.8µm	0.3µm
Other	Can choose Built-in wireless	

Built-in Wireless Smart High Precision Digital Indicators 2150



**DATA
OUTPUT**

**THE MEASURING TIME PERIOD CAN BE SET (1-99S IS ADJUSTABLE),
THE MAX./MIN./TIR/AVG. CAN BE MEASURED AUTOMATICALLY DURING
THIS PERIOD, AND THE DATA CAN BE TRANSMITTED AUTOMATICALLY
AFTER EACH MEASUREMENT**

**PRESS BUTTON OR PROBE MOVEMENT CAN START AUTOMATIC MEASUREMENT,
THE MEASUREMENT CAN BE DELAYED (1-99S IS ADJUSTABLE)**

Dial Indicators



Dial Comparator 2881



Precision Dial Indicators 2830



High Precision Compact Dial Indicators 2890



Compact Dial Indicators 2887



Dial Indicators 2892



Large Dial Face Dial Indicator 2888



Back Plunger Dial Indicator 2893



Waterproof Dial Indicator 2894



One Revolution Dial Indicators 2882

Contact Points



Universal Stands



Hydraulic Universal
Magnetic Stands 6229



Magnetic Stands
6200



Magnetic Stand For Uneven
Surfaces 6215



Mini Magnetic
Stand 6211



Flex Arm Magnetic
Stand 6207



Vacuum Stand
6217



Universal Stand
6214



Universal Dial Indicator
Stands(Non-magnetic) 6225



Dial Indicator Stands (Non-
magnetic) 6227

Dial Indicator Stands



Dial Indicator Stands 6876



Granite Dial Indicator Stand 6866



Granite Dial Indicator Stands 6867



Dial Indicator Stands 6864



Heavy Duty Dial Indicator Stand 6869



Transfer Stands 6865

Indicating Measuring Tools (P1)



Internal Caliper Gauges



External Caliper Gauges



Thickness Gauges



Geomembrane Thickness Gauges



Rubber Thickness Gauges



Leather Thickness Gauges



Tube Thickness Gauges



Thread/Lead Screw Pitch Diameter Snap Gauges



Saw Teeth Setting Gauges



Snap Gauges



Step And Gap Gauges



Mini Digital Height Gauges

Indicating Measuring Tools (P2)



Height Gauges



Crankshaft Testers



Thread Pitch Measuring Instruments



Buttress Thread Run-out Gauges



Buttress Thread Tooth Thickness Gauges



Thread Taper Measuring Instruments



Thread Height Measuring Instruments



Thread Height Measuring Instruments



Thread Crest Diameter Measuring Instruments



External Spline Comparator

Thickness Gauges



High Precision Digital Thickness Gauges 2879



Smart Digital Thickness Gauges 2850



Digital Thickness Gauges 2673



Digital Thickness Gauges 2871



Thickness Gauges 2364



Digital Thickness Gauges 2674



Digital Thickness Gauges 2872



Thickness Gauge 2361



Thickness Gauge 2363



Digital Roller Thickness Gauges 2877



Digital Rubber Thickness Gauges 2263



Digital Leather Thickness Gauges 2262

Bluetooth Digital Indicating Snap Gauges 3509

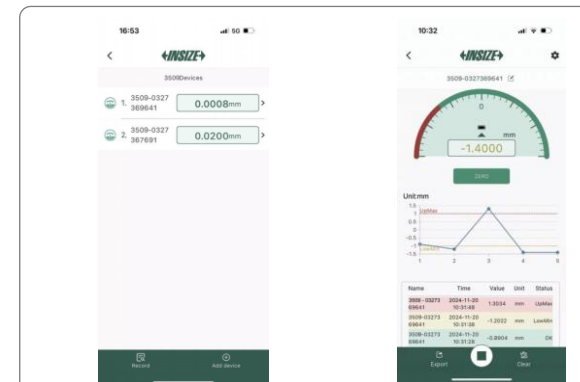
BUILT-IN BLUETOOTH

IP54 WATERPROOF

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF



Data collection application (included) real-time display (continuous streaming) or single acquisition mode selectable



real-time display of multiple snap gauges (connected with maximum 7 snap gauges)

single snap gauge display interface



over lower tolerance in yellow



within tolerance in green



over upper tolerance in red

- Range : 0-50mm
- Resolution : 0.1µm
- Accuracy : 1µm
- Repeatability : 0.3µm

Dial Snap Gauges 2186



digital indicator optional

Application



- Range : 0-300mm
- Parallelism of measuring faces : 4 μ m-12 μ m
- Flatness of anvil : 1.5 μ m

- Left anvil retracting stroke : 2mm
- Measuring force : 6-8N
- Repeatability : 1 μ m

Dial Snap Gauges 2186--Application

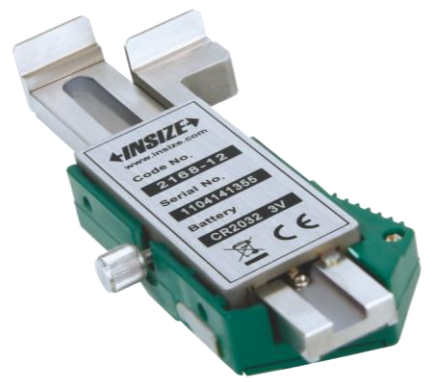


Quickly measure the outer diameter of the differential

Step And Gap Gauges 2168

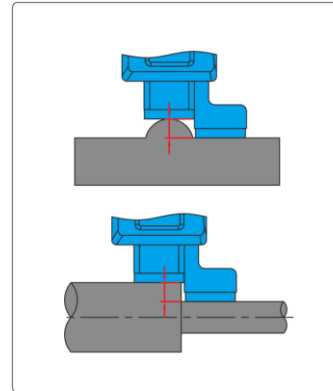


Front

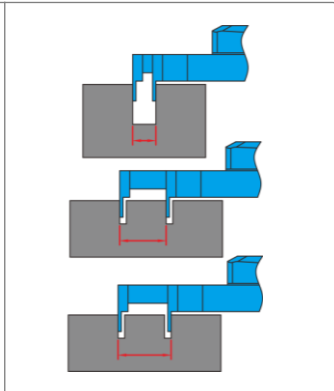


Back

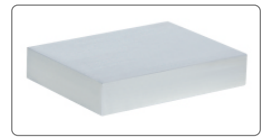
Step height



Gap width



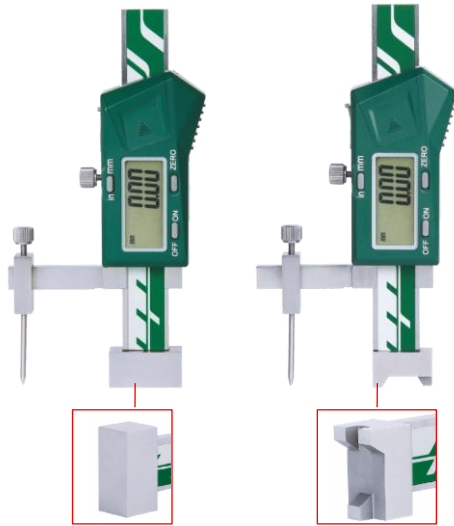
Zero setting block (included)



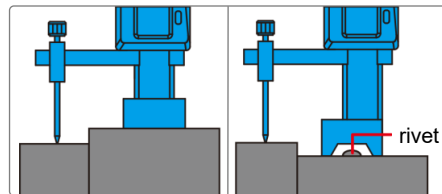
- Range : 0-12.7mm
- Accuracy : ±0.03mm
- Resolution : 0.01mm
- Measure step height and gap width

Digital Height Gauges

1146



Application

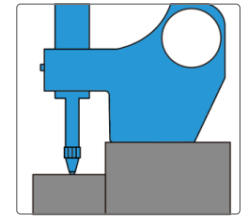


- Resolution : 0.01mm
- Range : 0~±20mm
- Accuracy : ±0.02mm
- Measure height difference of two surfaces

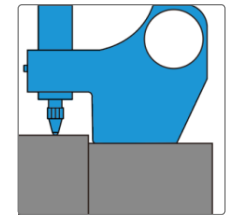
2146-4A



Measure sinked step



Measure raised step



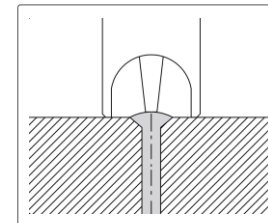
- Range (adjustable) : 0-4mm (sinked)), 0-12.7mm (raised)
- Digital indicator resolution : 0.01mm/0.001mm
- Accuracy : ±0.02mm/±0.005mm
- Measure height difference of two surfaces

Digital Flushness Gauge 2936



DATA
OUTPUT

Application



Zero-setting block (included)

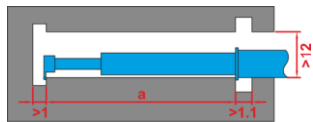


- Measuring range : $\pm 5\text{mm}$
- Accuracy : 0.005mm
- Resolution : 0.001mm
- Repeatability : 0.002mm
- Measuring force : $8\text{-}12\text{N}$

Pistol Grip Groove Width Bore Gauge 2438

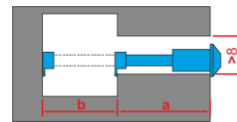
- Travel of contact point : 10mm
- Accuracy : 5 μ m

2438-BASE1



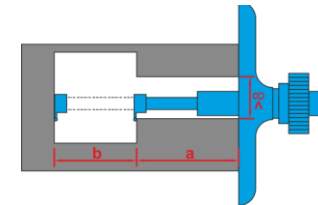
Measuring groove pitch

2438-BASE2



Measuring groove width and depth

2438-BASE3



Measuring groove width and depth

Standards And Gauge Blocks (P1)



Gauge Blocks



Caliper Inspection Gauge Block Sets



**Micrometer Inspection
Gauge Block Sets**



Cylinder Gauge Blocks



Gauge Block Accessories



Gauge Block Holders



Caliper/Height Gauge Checkers



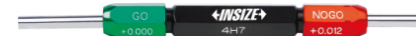
Angle Gauge Blocks



Pin Gauges



Pin Gauges With Handle



Pin Gauge Handles



Setting Rings

Standards And Gauge Blocks (P2)



Cylinder Gauges



Adjustable Snap Gauges



Plain Plug Gauges



Spline Ring/Plug Gauges



Measuring Balls



Threaded Hole Location Gauges



Thread Depth Gauges



Thread Ring/Plug Gauges



Semi-Automatic Thread Inspectors



Handheld Thread Inspection Machines



External Thread Measuring Devices

Setting Rings

CUSTOM-MADE



Setting Rings 6312



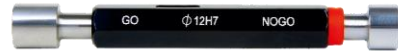
Carbide Setting Rings 6317



Ceramic Setting Rings 6319

Plain Plug Gauges

CUSTOM-MADE



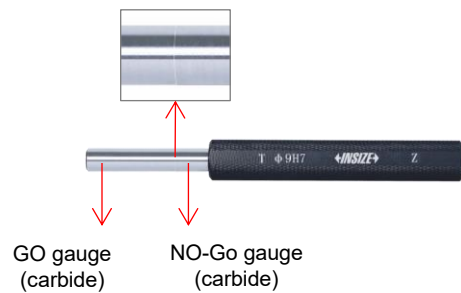
Plain Plug Gauges 4124



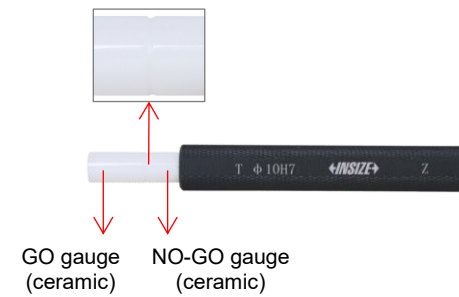
Carbide Plain Plug Gauges 4128



Ceramic Plain Plug Gauges 6332

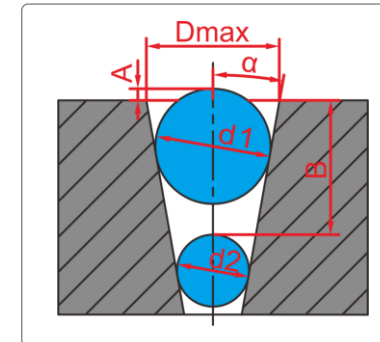


Carbide Plain Plug Gauges (Single End) 6331



Ceramic Plain Plug Gauges (Single End) 6333

Ceramic Measuring Balls 4190



calculate angle (α) and diameter(D_{max}) according to the ball diameter(d_1 , d_2), height (A) and depth (B)

- Diameter : 1-40mm
- Accuracy : $\pm 2\mu\text{m}$ / $\pm 2.5\mu\text{m}$
- Roundness : $0.5\mu\text{m}$ - $1.5\mu\text{m}$
- Zirconia material, high strength and hardness, extremely wear resistance and corrosion resistance, good insulation, antistatic and magnetic resistance
- Mirror surface without holes

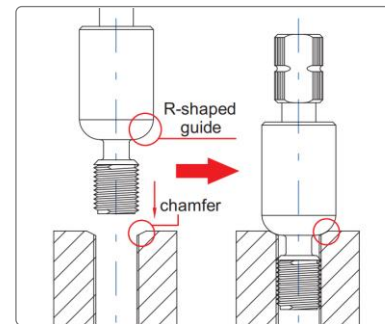
Threaded Hole Location Gauges 4676



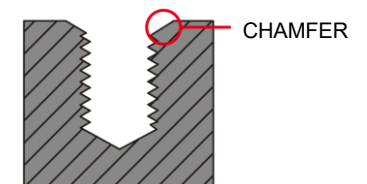
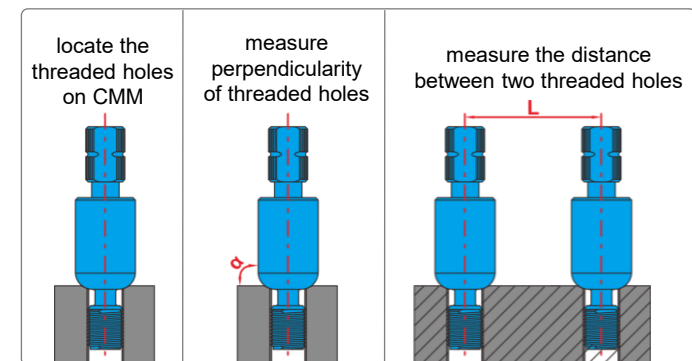
the concentricity between this surface and threaded part is less than 0.01mm

Size: M3-M12

there is a R-shaped guide, which leads the gauge to the center of the threaded holes by fitting the R-shaped guide on the chamfer of the threaded holes



Application

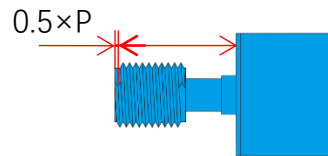


ATTENTION: ONLY FOR THE WORKPIECES THAT THE CHAMFER IS CONCENTRIC WITH THE SCREW PART

Thread Depth Gauges

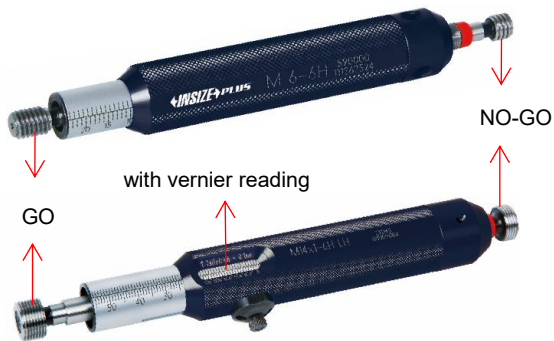


4649

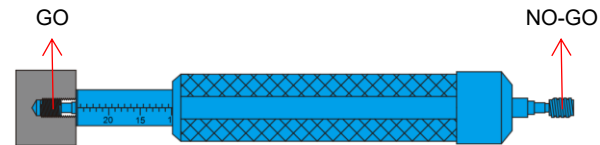


the depth measurement starts at 1/2 thread pitch (P)

- Size : M2-M30
- Resolution : 0.01mm
- The GO gauge can be replaced after wear



4666



check GO and NO-GO while measuring depth of thread holes

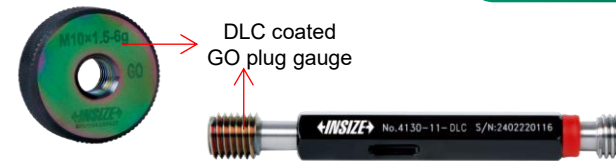
- Size : M2-M30
- Graduation : 0.5mm/0.1mm
- The GO gauge can be replaced after wear

Thread Plug And Ring Gauges



Thread Plug And Ring Gauges

- Metric/Unified/Taper Pipe/Whitworth Parallel Pipe Thread series
- Customized available according to customer drawings



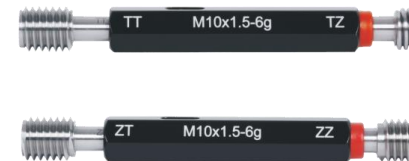
DLC Coated Thread Ring Gauges And Plug Gauges

- The DLC coating has the following advantages:
- High hardness, extremely wear resistance
 - Low friction coefficient
 - Corrosion resistance



Metric Thread Plug Gauges

- Supplied with Go and No-Go gauges together



Check Plugs For Metric Thread Ring Gauges

- Check thread ring gauges

Electric Thread Plug Gauges 4256

- Suitable for left-hand and right-hand threads
- Fast screw-in and screw-out

CUSTOMIZED THREAD PLUG
GAUGES ARE AVAILABLE



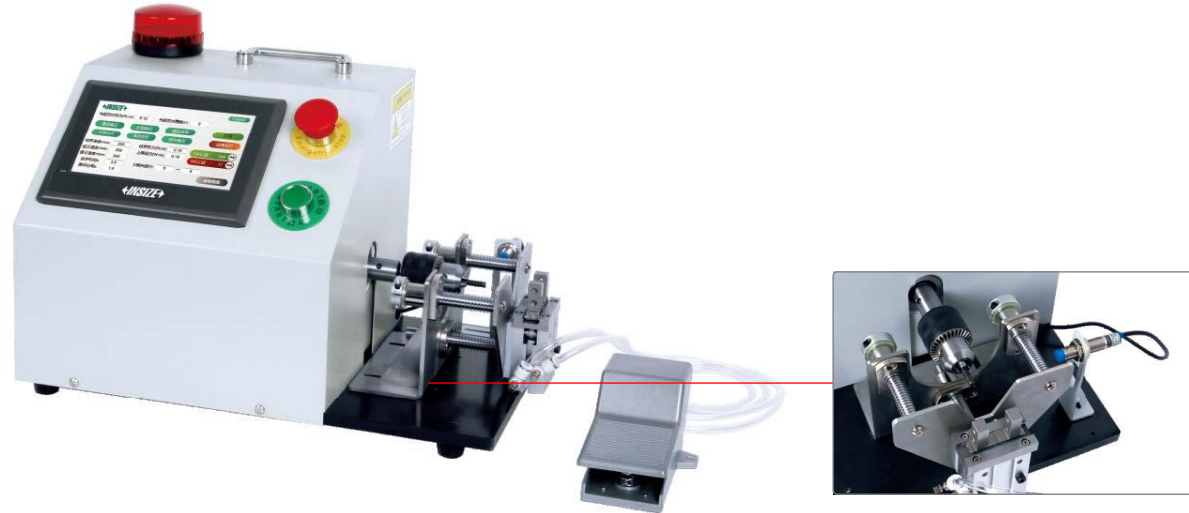
handle with adjustable angle

4256-HANDLE

- Electric Driver (thread plug gauge are not included)
- Torque range : 0.3~2.9N.m
 - Number of torque settings : 21

Automatic Thread Inspection Machine TCM

CUSTOM-
MADE



←INSIZE→		中文
Torque value(N.m):	0.12	Circles(r): 0
GO gauge	NO-GO gauge	Thread depth
Forward	Continuous	Auto
Guide spd(r/min):	200	Guide torque(N.m):
Twist spd(r/min):	300	max.torque(N.m):
Retract spd(r/min):	500	Retract time(s):
Interval(s):	1.0	OK circles(r):
		OK count
		NG count
		Manual mode

- Measuring range : thread : M1-M30
- Reprocessing range : thread : M1-M20

- For inspection of GO, NO-GO and depth of threads
- Can be for repair of thread defects
- Real-time display of torque, circles, OK and NG counts
- If NG thread is detected, audible and visual alarm are activated and the motor is automatically reversed to exit the thread gauge
- For different length of thread by adjusting the induction switc
- Thread gauges with DLC coating, excellent wear resistance

Handheld Thread Inspection Machines

HES-TP01/HES-TP02



Controller (included)



Code	Measuring range (internal thread)	Torque range	Max. speed
HES-TP01	M4-M13	0.02-0.23N.m	5000rpm
HES-TP02	M14-M30	0.15-0.90N.m	1200rpm

- For inspection of left-hand and right-hand internal thread
- High precision torque+angle control
- Real-time display torque, OK counts, NG counts and pass rate
- If NG thread is detected, the alarm is activated and the corresponding NG parameter is displayed in red on the controller
- Provide programmable IO and RS485 communication port for process control and data transmission
- Thread plug gauges can be replaced with different sizes
- Thread gauges with DLC coating, excellent wear resistance

Angle, Straightness, Flatness Measuring Tools



Angle Meters



Protractors



Granite Squares



Granite Square



Cylinder Squares



Perpendicularity Testers



Squares



Straight Edges



Straight Edges



Optical Flats



Sodium Light Cabinets



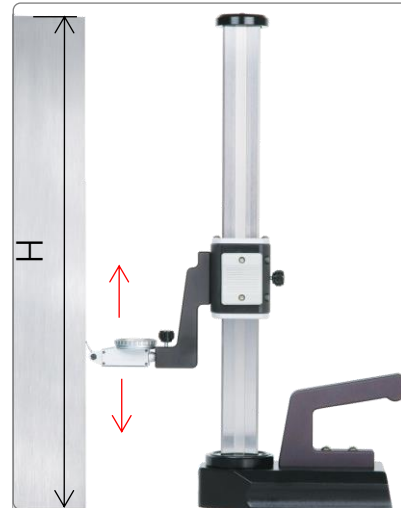
Flatness Measurement Stands

Digital Protractor 2771



- Resolution : 1'/0.01°
- Range : 0-360°
- Accuracy : ±5'

Perpendicularity Testers 4770



Code	Range (H)	Perpendicularity (α)	Side perpendicularity (β)
4770-300	0-300mm	3 μ m	10 μ m
4770-600	0-600mm	5 μ m	20 μ m

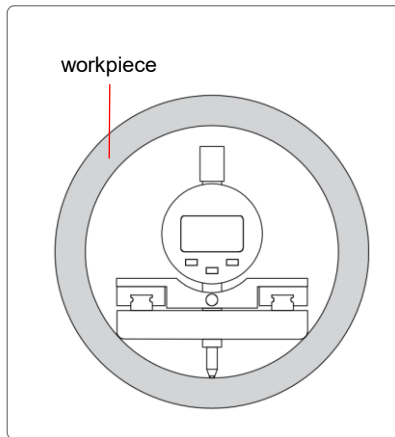
Pipe Straightness Gauge 2226

- Measure inner wall straightness of pipes

DATA
OUTPUT

GUIDE LENGTH (L) CAN
BE CUSTOMIZED

Application



- Measuring range : 400mm
- Inner diameter of measured bore : 100-250mm
- Resolution : 0.01mm
- Straightness accuracy : 0.05mm
- Guide rail length : 430mm

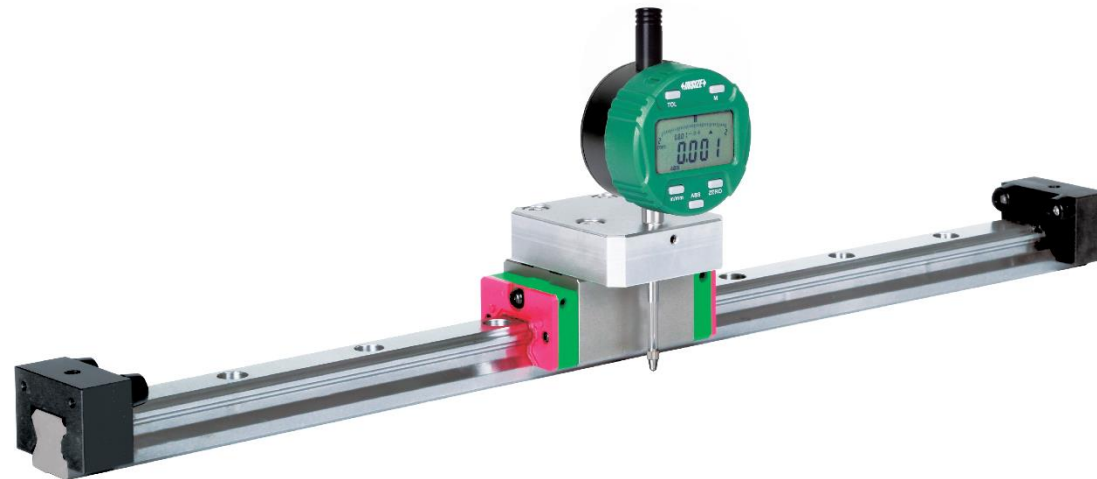
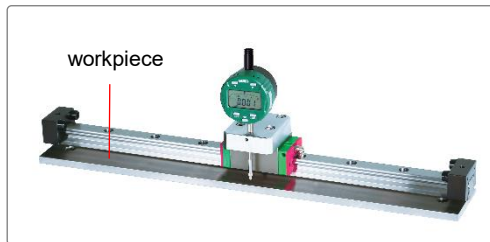
Straightness Gauge 2225

- Measure straightness of workpieces

DATA
OUTPUT

GUIDE LENGTH (L) CAN
BE CUSTOMIZED

Application



- Measuring range : 370mm
- Resolution : 0.001mm
- Straightness accuracy : 15 μ m
- Guide rail length : 500mm

Flatness Measurement Stands 6852

GRANITE PLATE CAN BE CUSTOMIZED
ACCORDING TO WORKPIECES



ball point

Application



workpiece

- Digital indicator resolution : 0.001mm
- Flatness measurement accuracy : 2 μ m
- Flatness of granite plate : 2 μ m

Concentricity And Runout Testers



Concentricity Gauges



Bench Centers



Bench Centers



Motorized Concentricity Gauges



Digital Motorized Concentricity Gauge



Vertical Bench Centers



V-blocks



Expansion Mandrels

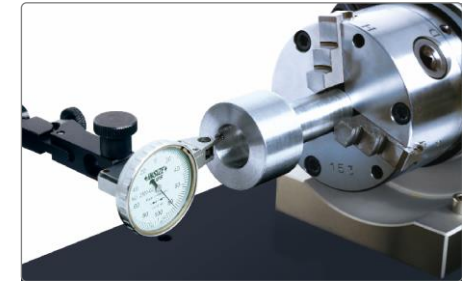
Concentricity Gauges 4786



For cylinder



For tube



- Applicable inside diameter : $\text{Ø}24\text{-}64\text{mm}$
- Applicable outside diameter : $\text{Ø}2\text{-}70\text{mm}$
- Accuracy : $3\mu\text{m}$
- $\text{Ø}50\text{mm}$ setting ring and $\text{Ø}55\text{mm}$ calibration cylinder are included
- To ensure the accuracy $3\mu\text{m}$, the distance between measuring point and roller should be $<50\text{mm}$

Bench Centers



4736

- Diameter range : Ø3-35mm
- Workpiece length : 15-405mm
- Accuracy : 2µm



4739

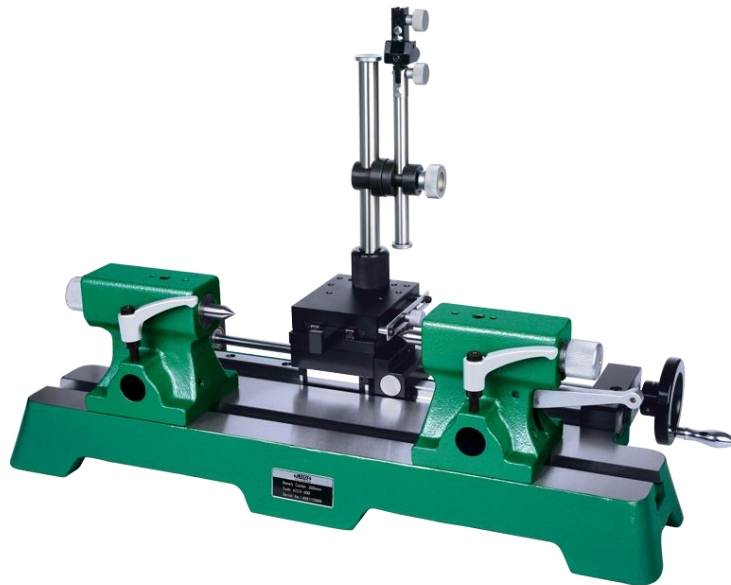
- Accuracy : 2µm



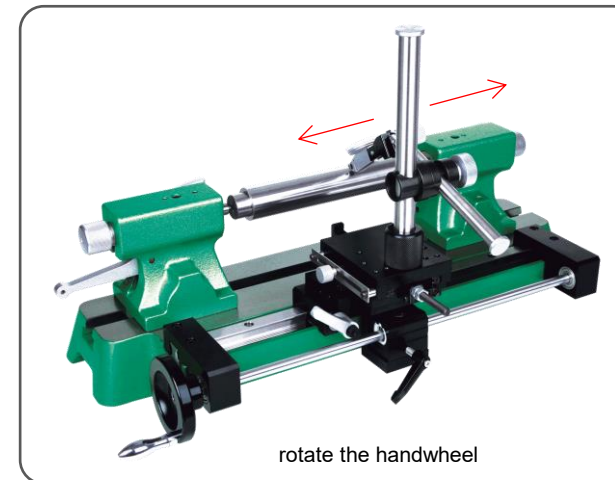
4741

- Stem hole : Ø8mm-Ø28mm
- Diameter range : Ø3-40mm

Bench Center With Straightness Measurement 4723



Straightness measurement



- Runout accuracy : 2 μ m
- Accuracy of straightness measurement : 0.02mm
- Distance between two centers (D) : 300mm

Simple Measuring Tools (P1)



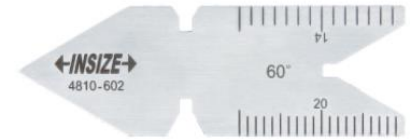
Feeler Gauges



Pitch Gauges



Gear Tooth Pitch Gauges



Center Gauges



Thread Gauges



Angle Gauges



Radius Gauges



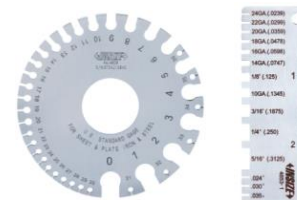
Drill Gauges



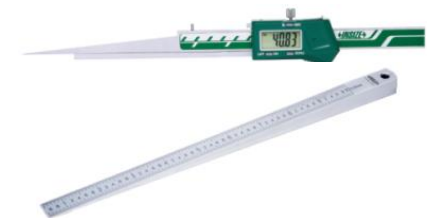
Angle Gauges



Wire Gauges



Thickness Gauges



Taper Slot Gauges

Simple Measuring Tools (P2)



Taper Gauges



Taper Bore Gauges



Welding Gauges



Fillet Welding Gauges



Welding Gauges



Pipe Welding Gauges



Inside/Outside Calipers



Dividers



Length Tapes



Measuring Tapes



Long Measuring Tapes



Automatic Measuring Tapes Calibration Systems

Simple Measuring Tools (P3)



Measuring Wheels



Digital Measuring Wheels



Steel Rules



**Automatic Steel Rulers
Calibration Systems**



**Digital Scales With
Microscope**



Combination Squares



Plastic Angle Squares



T-levels



Marking Gauges



Center Marking Gauges



Locators



Scribing Calipers

Simple Measuring Tools (P4)

←INSIZE→



Height Scribes



Scribers



Precision Screwdriver Sets



LED Flashlights

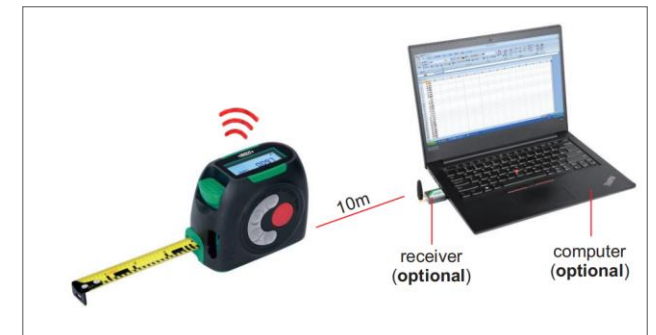


Measuring Tool Sets

Digital Measuring Tapes 9570



Wireless Connect To Computer



- Range : 5m
- Digital measurement accuracy : $\pm 1\text{mm}$
- Blade graduation : 1mm, 1/16"
- Blade graduation accuracy : $\pm(0.5+D/5000)\text{mm}$, D : measured distance rounded to whole metres, when $D < 1\text{m}$, D takes to 1m

Set-Up Tools (P1)



Granite Surface Plates



Stands For Granite Surface Plates



Jack Sets For Granite Surface Plates



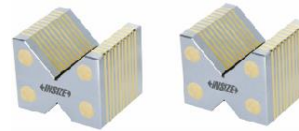
Magnetic Rectangular Blocks



V-blocks



Magnetic V-blocks



Magnetic Induction V-blocks



Squares With V Groove



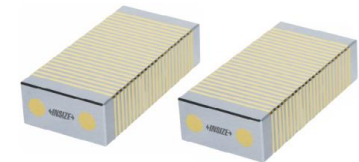
Permanent Magnetic Chucks



Parallels



Parallel/Square Sets



Magnetic Induction Parallel Sets

Set-Up Tools (P2)



Angle Plate Sets



Adjustable Angle Blocks



Right Angle Plates



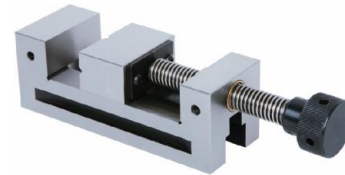
Sine Bars



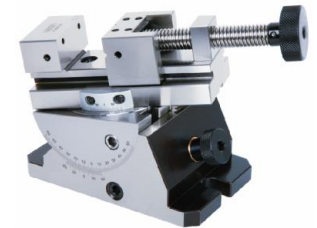
Sine Tables



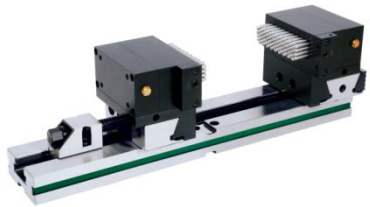
Precision Sine Vises



Precision Vises



Precision Universal Vises



Anvil Vises



Stages

Vibration Isolation Platforms



rubber vibration damper
(included)

0790-B

- Countertop material : marble/honeycomb platen
- Countertop thickness : 100mm/200mm
- Max. load : 400kg-800kg
- Dimension (L×W×H) :
800×800×800mm-2000×1200×800mm

built-in air spring
vibration
isolation system
(included)



0791-S

- Countertop material : marble/honeycomb platen
- Countertop thickness : 100mm/200mm
- Max. load : 500kg/800kg
- Dimension (L×W×H) :
800×800×800mm-2000×1200×800mm

precision air-
floating vibration
damper

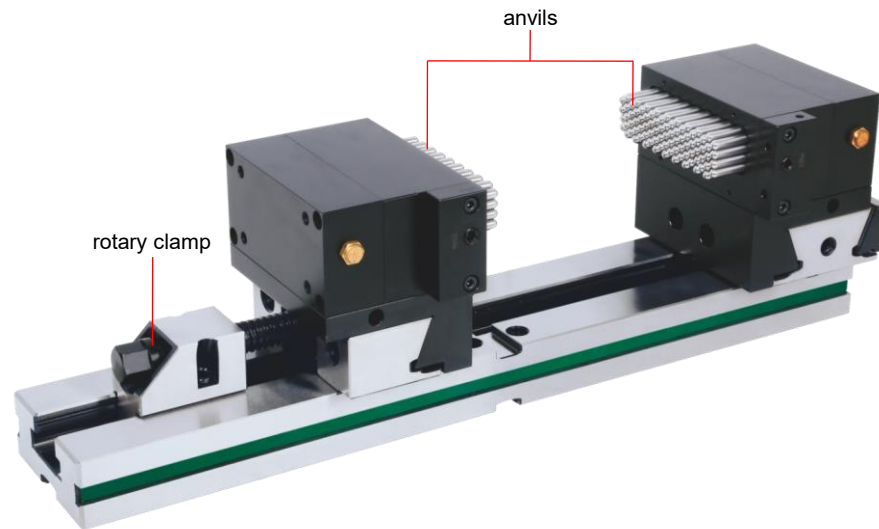
pressure regulating
valve



0792-A

- Countertop material : marble/honeycomb platen
- Countertop thickness : 100mm-200mm
- Max. load : 300kg-1500kg
- Dimension (L×W×H) :
800×600×780mm-1600×1200×780mm

Anvil Vises 6519



- Guide length : 520mm, 680mm
- Clamp range : 0-190mm, 0-320mm
- Clamp force : 6500N, 8000N

Application



- The vise is used to fix workpieces during machining. The anvils are formed according to the shape of workpieces to be fixed, so the vise can fix workpieces quickly.
- Diameter of anvil : 6mm
- Movement range of rotary clamp : 0-50mm

03

Levels (P1)



Built-in Bluetooth Electronic Levels



Built-in Bluetooth Digital Levels



Built-in Bluetooth Dual-Axis Digital Level



High Precision Digital Inclination Level



Digital Levels And Slope Meters



Frame Levels



Built-in Bluetooth Block Levels



Block Levels



03

Levels (P2)



Imaging Level



Level Bubbles



Levels



Cross-line Laser Levels



Self-Leveling Rotary Lasers

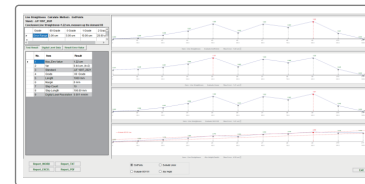


Built-in Bluetooth Wireless Electronic Levels 4952

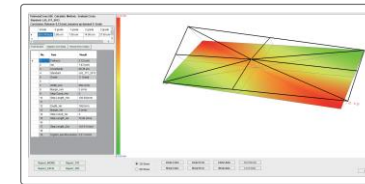


LCD display

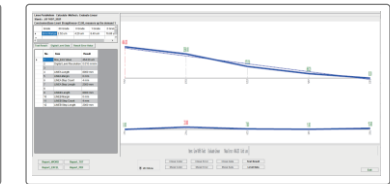
straightness measurement



flatness measurement



parallelism measurement



- Measures flatness, parallelism and straightness
- Built-in bluetooth, transmission distance is 30 meters (under the condition of no obstruction and no electromagnetic interference)
- The LCD can be rotated for easy observation in different directions

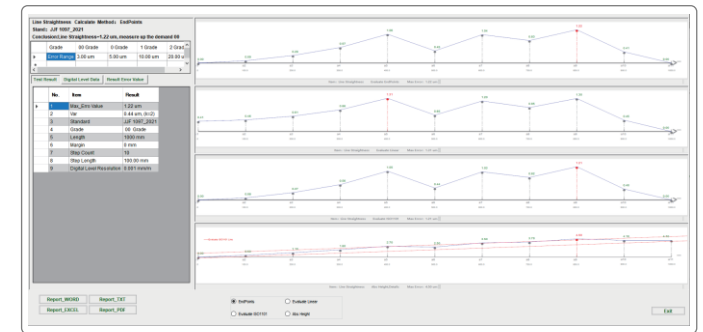
Code	4952-150		4952-150L	
	Resolution (adjustable)	0.01mm/m	0.001mm/m	0.01mm/m
Range	±5mm/m	±0.5mm/m	±5mm/m	±2.5mm/m
Repeatability	0.01mm/m	0.001mm/m	0.01mm/m	0.005mm/m
Response time	<3s	<10s	<3s	<5s
Accuracy	±(0.01+2%A)*	±(0.001+2%A)*	±(0.01+2%A)*	±(0.005+2%A)*

* A is the absolute measured value, for example A=0.1mm/m, the resolution is 0.001mm/m, the accuracy is ±0.003mm/m

Cylinder Straightness Measuring Instruments 4957



straightness measuring software (included)



- Measure the straightness of cylinders, calibrate the horizontal installation of cylindrical equipments
- Android APP and straightness measuring software are included

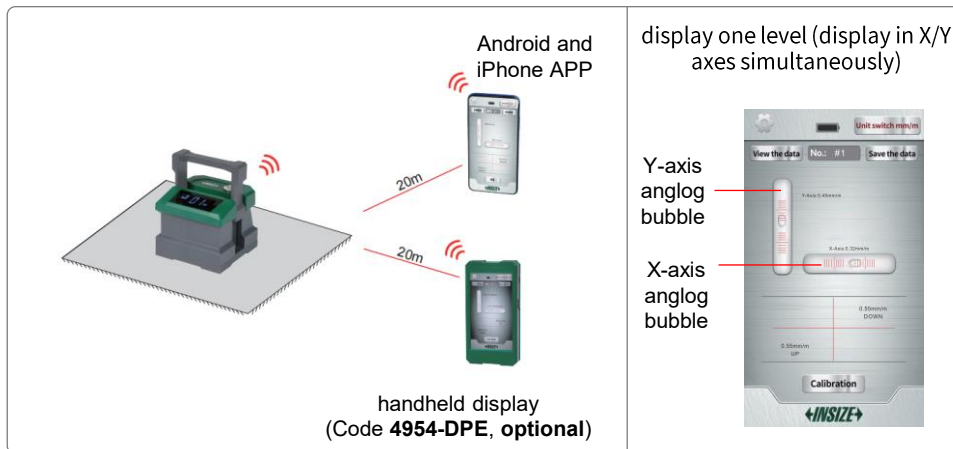
Resolution (adjustable)	0.01mm/m(2")	0.005mm/m(1")
Range	±5mm/m	±2.5mm/m
Repeatability	0.01mm/m	0.005mm/m
Response time	<3s	<5s
Accuracy	±(0.01+2%A)*	±(0.005+2%A)*

*A is the absolute measured value, for example A=1mm/m, the resolution is 0.005mm/m, the accuracy is 0.025mm/m

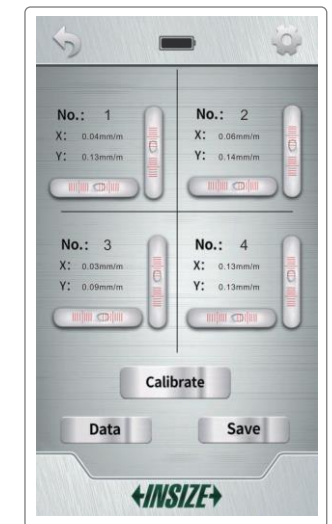
Built-in Bluetooth Dual-axis Digital Levels 4954

- Measure the level of machine tools and other equipments
- Built-in bluetooth, transmission distance is 20 meters (under the condition of no obstruction and no electromagnetic interference)
- Can display one level, can also display two or more (up to 4 levels at a time)

data output



up to 4 levels at the same time



- Range: $\pm 0.5\text{mm/m}$
- Resolution: 0.01mm/m
- Accuracy: $\pm 0.02\text{mm}$

Dual Axis Digital Level And Gyro Angle Meter 2199

DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

AUDIBLE ALARM WHEN OUT OF LIMIT

BACKLIGHT



Measurement of angle between two planes in any direction (gyro technique)



place the angle meter at the first position, press "angle" button, rotate to another position (rotation speed <math>< 90^\circ/s</math>), LCD shows the angle α



Dual axis mode



Single axis mode

Connect to mobile phone



Connect to computer



- 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

Dual axis digital level:

- Range: single axis level: $4 \times 90^\circ$
dual axis level: $\pm 40^\circ$
- Resolution: 0.01°
- Accuracy: 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:

- Range: 360°
- Resolution: 0.1°
- Accuracy: $\pm 0.5^\circ$

Built-in Bluetooth Digital Level And Slope Meter 2198



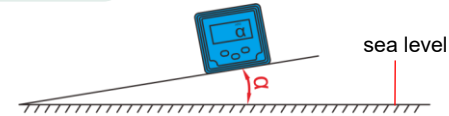
MAGNETIC
BOTTOM

BACKLIGHT

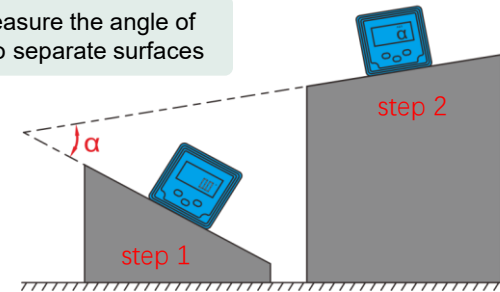
DISPLAY FLIPS OVER WHEN
THE BOTTOM FACES UP

ABSOLUTE
LEVEL

Measure slope



Measure the angle of
Two separate surfaces



- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Built-in bluetooth, transmission distance is 15 meters (under the condition of no obstruction and no electromagnetic interference). Android and iPhone APP are included

- Range : $4 \times 90^\circ$
- Resolution : $0.1^\circ (=1.745\text{mm/m})$
- Accuracy : at 0° and 90° : $\pm 0.1^\circ$;
at others : $\pm 0.2^\circ$



Android and iPhone APP (included),
can choose real-time display
(continuous transmission) or single
transmission

Built-in Bluetooth Block Level 4953



COLOR DISPLAY
LARGE CHARACTERS WITH BACKLIGHT

BUILT-IN
BLUETOOTH

- Range : $\pm 0.5\text{mm/m}$
- Resolution : 0.01mm/m
- Accuracy : $\pm 0.02\text{mm/m}$
- Repeatability : 0.01mm/m

• Analog bubbles can show tilt trends in X-axis and Y-axis

04

On-Machine Measurement (P1)



**Video Measuring Instrument
For Machine Tools**



Centering Indicators



Edge Finders



Edge Finders For EDM



3D Testers



Trigger-type 3D Probes



Machine Tool Probes With Cable



**Transmission Probes For
CNC Machine tools**



04

On-Machine Measurement (P2)



Zero Setters With Cable



Automatic Zero Setter System For Lathe



Zero Setter



Five-Side Zero Setter With Cable



Electronic Tool Setter



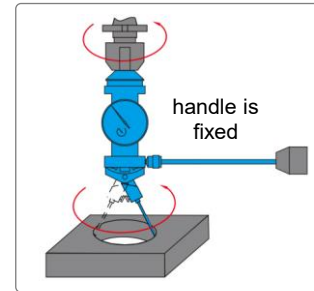
Zero Setters



Vertical Milling Machine Perpendicularity Measuring Gauges

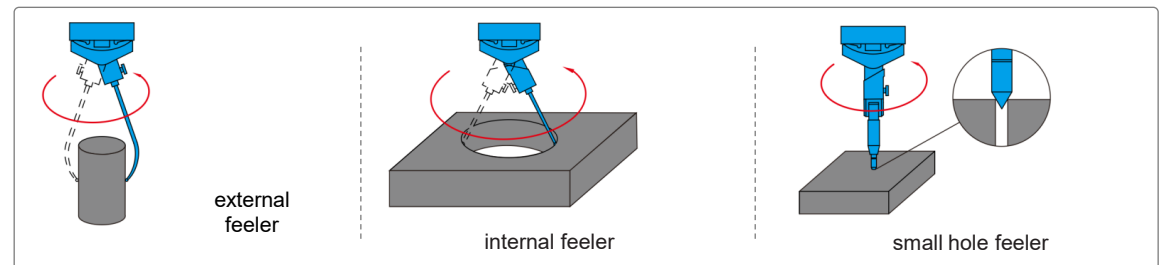


Centering Indicator 2385



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

Application



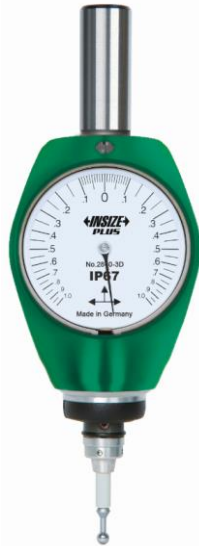
- Provides quick and accurate centering in boring and milling set-up
- Maximum speed is recommended not to exceed 800rpm

3D Testers

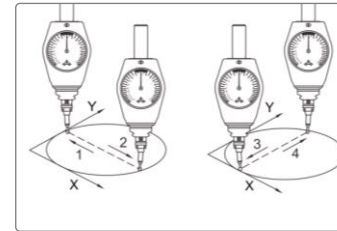
2846



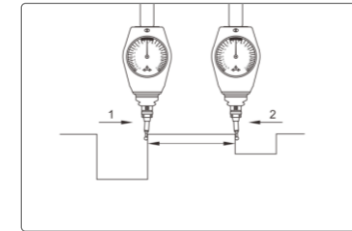
2840



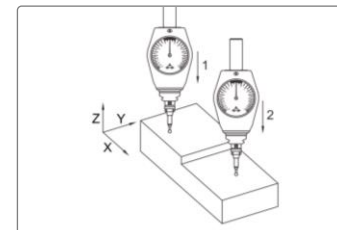
Find center of holes



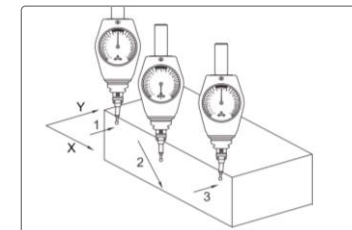
Length measurement



Depth measurement



Position workpieces

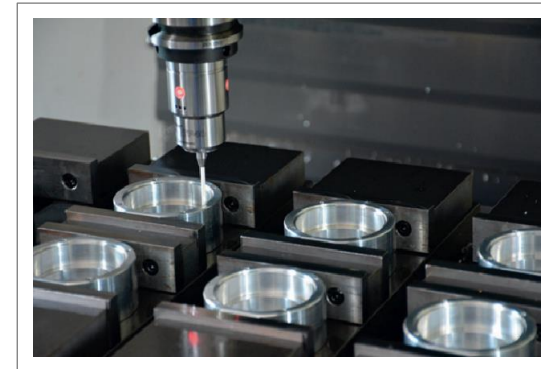


- Mainly used for milling machines and CNC machine tools
- 1. determine coordinate point on workpieces
- 2. find center of holes
- 3. adjust and position workpieces
- Can be used to measure length and depth

Trigger-type 3D Probe (Audible And Visual Alarm) 9410



Application



- Arbitrary one-way repeated trigger accuracy : $\leq 1\mu\text{m}$
- Directional trigger protection stroke : X-Y: $\pm 12^\circ$, Z: +5mm
- Trigger force in X-Y direction (with standard styli) : 0.3-0.6N
- Trigger force in Z direction : 4N

Infrared Transmission Probes For CNC Machine Tools 9413

Probe

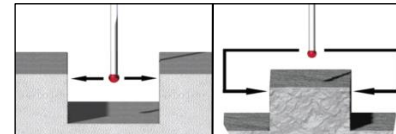


Receiver

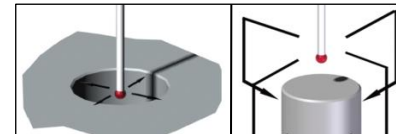


Automatic measurement software (included)

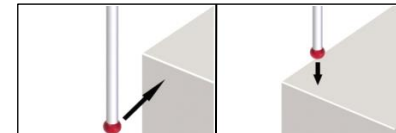
1. Stylus automatic calibration
2. Protection of stylus during probe movement (avoid collision)
3. Groove and boss measurement



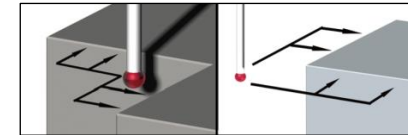
4. Bore and axis measurement



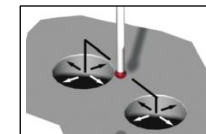
5. X or Y single-surface measurement



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



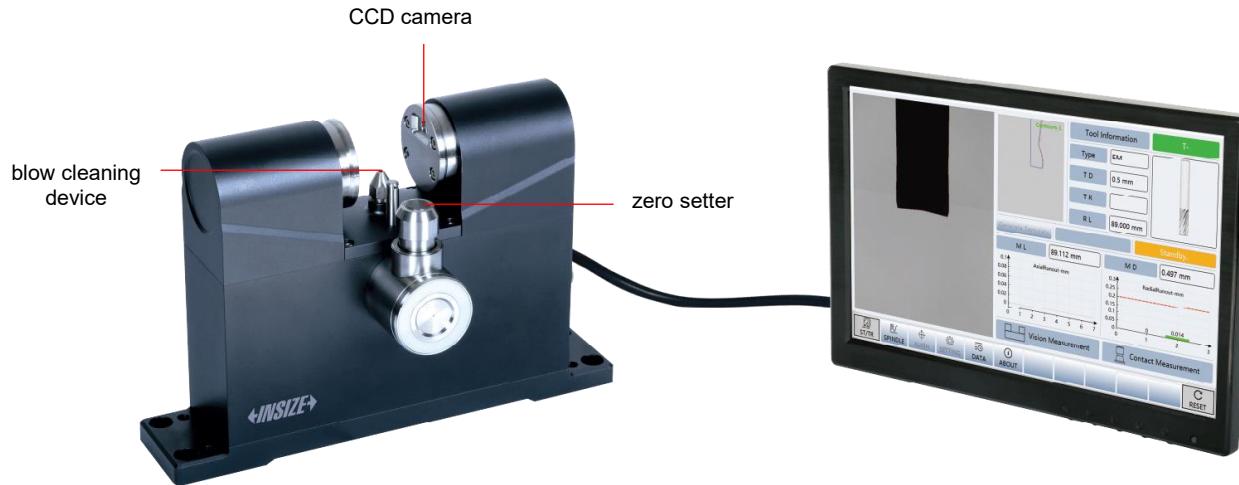
- Trigger accuracy of styli in any direction : 1 μ m
- Infrared transmission/reception range: 5m

Vision Zero Setter 9417

HIGH ROTATION
MEASUREMENT

IP65
WATERPROOF

Application



- For 3-axis/5-axis high-speed precision machining centers
- Zero setter for large diameter cutting tool lengths
- High-precision CCD camera to measure tool length, tool diameter, axial runout, radial runout, etc.
- Monitoring spindle thermal steady state
- Applicable CNC systems: FANUC, HAAS, OKUMA, SIMENS, LYNUC, MITSUBISHI, etc.

Vision measurement

- Range : Ø0.05-30mm
- Static measurement accuracy : $\pm 2\mu\text{m}$
- Repeatability : $\leq 3\mu\text{m}$
- Communication protocols : OPC-UA, TCP/IP, RS232

Zero setter

- Working air pressure : 0.4-0.8MPa
- Repeated trigger accuracy : $\leq 2\mu\text{m}$

Zero Setter With Cable (Five-side) 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

Application



- Trigger protection stroke : X-Y : $\pm 5\text{mm}$, Z : 8mm
- Axial reset force : 3.4N-3.6N
- Repeated trigger accuracy : $\leq 1\mu\text{m}$
- Hardness of the zero setter : HM8.5

Linear Probes



Inductance Type Probe



Digital Linear Gauges



Capacitance Type Linear Gauges And Display Units



Laser Displacement Sensors



Linear Scales And Digital Readouts



Magnetic Linear Scales



Scales



Inductance Type Probes 9420

IP65
WATERPROOF



9420-AP02



9420-BP02

Code	9420-AP02	9420-BP02
Range	±0.9mm	±1mm
Accuracy	$\pm(0.3+3 \times L ^3) \mu\text{m}$	$\pm(0.2+3 \times L ^3) \mu\text{m}$
Repeatability	0.15 μm	

L is measuring length in mm

Inductance Probe Displays

9427



- Channel number : 1-4
- Unit : μm , mm
- Range : $\pm 1\text{mm}$, $\pm 2\text{mm}$, $\pm 5\text{mm}$, $\pm 10\text{mm}$ (adjustable)
- Resolution : $0.1\mu\text{m}$, $1\mu\text{m}$

9428



- Channel number : 1-16 (selectable)
- Unit : μm , mm
- Range : $\pm 0.5\text{mm}$, $\pm 1\text{mm}$, $\pm 2\text{mm}$, $\pm 5\text{mm}$, $\pm 10\text{mm}$ (adjustable)
- Resolution : $0.1\mu\text{m}$

Inductance Type Probe And Display Unit 9442-SET1

UNIDIRECTION

FIXED LEVER
ANGLE



9427-S01B



9442-G03

Spindle runout measurement application



universal magnetic stand (optional)

Display Unit Specification

- Resolution : 0.1μm/1μm
- Channel number : 1
(can be customized up to 4 channels)

Inductance Type Probe Specification

- Range : ±0.3μm
- Overall accuracy : ±2μm
- Overall repeatability : 0.3μm

Digital Linear Gauges

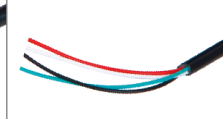
7130-10



Output interface



RS232, TTL level
RS232, 232 level



RS485



RS232, TTL level
RS232, 232 level

7134-10L (Pneumatic Digital Linear Gauges)



- Range : 0-12.5mm
- Accuracy : 1µm/3µm
- Measuring force : ≤1.5N

- Repeatability : 0.5µm/1.5µm
- Absolute encoder, the original data remains after power off
- Digital signal output, amplifier is not required
- Dust/waterproof : IP43/IP66

Capacitance Linear Gauges 7107

Capacitance Linear Gauges

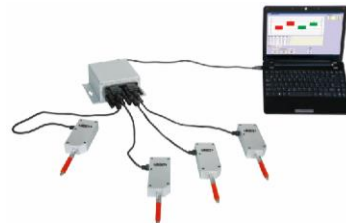


- Measuring range : 12mm
- Resolution : 0.01mm / 0.001mm
- Accuracy : 20µm / 5µm
- Hysteresis : 10µm / 2µm

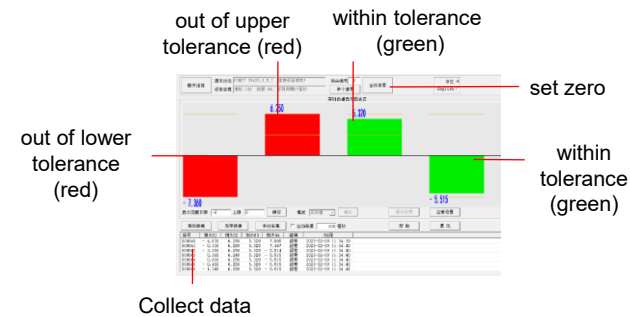
Multichannel Interface Boxes For Capacitance Linear Gauges



Connected with 7107-11, 7107-12, 7107-11V or 7107-12V linear gauges



Software (included)



Connected with digital indicators (data cable 7309-C01M is needed)



suitable for 2112, 2114, 2115, 2116, 2501, 2103 and 2104 series digital indicators

Laser Displacement Sensors LDS-N Series

- High accuracy, non-contact measurement, high speed response, multiple measurement modes, environmental adaptability, programmable control, rich data output interface and easy maintenance
- Can be used in automated production lines, robotic arms, packaging equipment, printing equipment, medical equipment etc.

IP67
WATERPROOF



Code	NPN+Analog current	LDS-N30	LDS-N50	LDS-N100	LDS-N200	LDS-N400	
	NPN+Analog voltage	LDS-N30-MC	LDS-N50-MC	LDS-N100-MC	LDS-N200-MC	LDS-N400-MC	
	NPN+RS485	LDS-N30-RS	LDS-N50-RS	LDS-N100-RS	LDS-N200-RS	LDS-N400-RS	
Basis (center) distance		30mm	50mm	100mm	200mm	400mm	
Detection range (FS)		25-35mm	35-65mm	65-135mm	120-280mm	200-600mm	
Full scale		10mm	30mm	70mm	160mm	400mm	
Repeat accuracy		5μm	15μm	35μm	100μm	200-400mm: 150μm	400-600mm: 400μm
Linear accuracy		±0.2% FS				200-400mm: ±0.2% FS	400-600mm: ±0.3% FS

06

Roundness, Profile And Roughness Testers



Roundness/Cylindricity Tester



Roundness Measuring Machines



Precision Air Floating Rotary Tables



Surface Profile Measuring Machines



Roughness Measuring Machines



Roughness Testers



Surface Roughness Specimens



Surface Roughness Reference Specimens



Roundness/Cylindricity Testers

Roundness/Cylindricity Tester RCT-300



- Automatic centering and leveling
- Evaluation items: cylindricity module, roundness module, straightness module, single section flatness module, multi-section flatness module, commutator module
- Analytical ability: cylindricity function, reference benchmarks for cylindricity evaluation, reference circle for roundness evaluation, measurement band, notched measurement

Roundness Measuring Machine RCT-RA260



- Air-floating spindle
- Can measure roundness, concentricity, flatness, radial runout
- Spectrum analysis, automatic gap/burr removal, waveform analysis
- 4 roundness evaluation methods: smallest area method, least square method, smallest circumscribed circle method, largest inscribed circle method

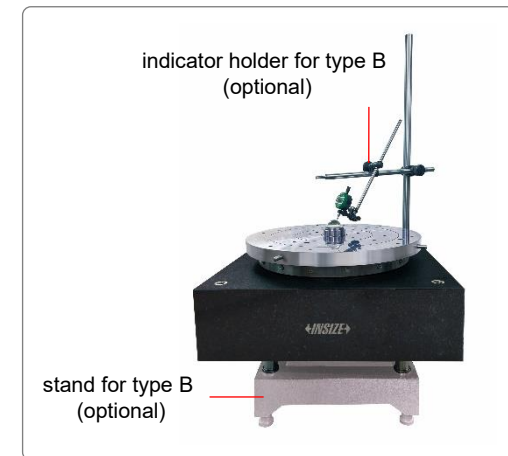
Precision Air Floating Rotary Tables 6875

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



- Manual drive
- Floating by air pressure, the rotary table can rotate smoothly and be free from wear

Application



- Stage Size : Ø320mm/Ø400mm/Ø500mm/Ø600mm
- Rotation accuracy in radial/axial : <math><0.3\mu\text{m}</math>

Roughness And Profile Measuring Machines (P1)

Surface Profile Measuring Machine SPM-1000



Roughness And Profile Measuring Machine (Two Probes Type) SPM-2000



- Measure curved surfaces

Roughness And Profile Measuring Machines (P2)

Roughness And Profile Measuring Machine (One Probe Type) SPM-5000



- Roughness, waviness, and profile analysis can be achieved with just one measurement

Roughness Measuring Machine SPM-4000

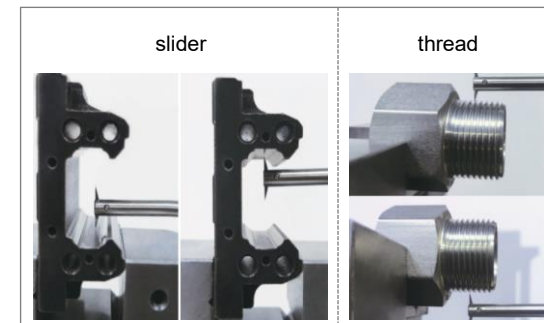


- Hundreds of parameters can be evaluated, such as roughness profile, waviness profile, primary profile, etc.

Bidirectional Roughness And Profile Measuring Machine SPM-6000



Application



- Bidirectional probe measurement
- Constant measuring force
- Intelligent tracking control system, real-time scanning measurement

Roughness Tester (Separable Type) ISR-C300/ISR-C301/ISR-C300WL

BLUETOOTH

TOUCH
SCREEN

DATA
OUTPUT

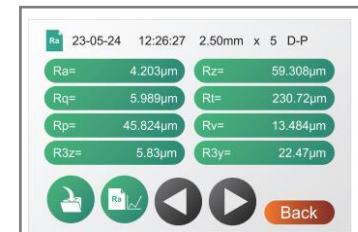
CAN BE OPERATED BY
COMPUTERS OR MOBILE PHONES



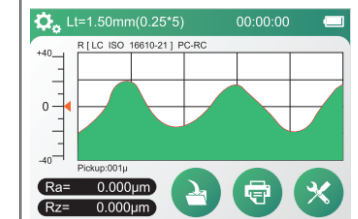
Probe and main unit Can be combined together



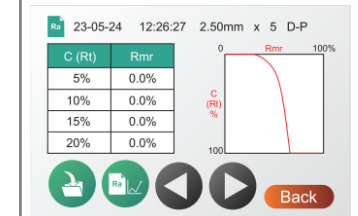
Roughness tester screen display



measurement result



roughness profile



Rmr analysis

- Roughness tester can be operated by mobile phones or computers
- Optional wireless or Bluetooth receivers can be used to output keyboard signals, connecting to a computer to send data to Excel
- Support bluetooth printer
- 36 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


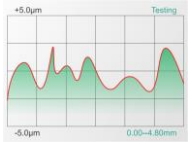


Roughness Tester For Automation ISR-C400

CAN BE OPERATED BY
MOBILE PHONES OR COMPUTERS

BLUETOOTH

DATA
OUTPUT

Screen display

 <p>display 1 group of parameter</p>  <p>roughness profile</p>	 <p>displays 3 groups of parameters</p>  <p>threshold alarm setting</p>
---	--



Application



- Range: 320 μ m (-160 μ m~160 μ m)
- Accuracy: \pm 10%
- Resolution (Ra): 0.001 μ m

Roughness Testers (P1)

Surface Roughness And Profile Tester ISR-S600



standard roughness probe (included),
for measuring plane and curved surfaces



standard profile probe (included),
for measuring profile and dimension

- Profile measurement specification
X axis measuring range : 59mm
X axis resolution : 1 μ m
Z axis measuring range : 3mm
Z axis resolution : 1 μ m

- Roughness measurement specification
Range : 1500 μ m
Resolution (Ra) : 0.0001 μ m

Roughness Tester (Compact Type) ISR-C200



- Range : X axis : 17.5mm
Z axis : 250 μ m
- Accuracy : $\pm(5\%+0.025)\mu$ m
- Resolution (Ra): 0.001 μ m

Roughness Testers (P2)



Roughness Tester ISR-C002

- Range : 320 μ m (-160 μ m~160 μ m)
- Accuracy: \pm 10%
- Resolution (Ra) : 0.001 μ m



Roughness Tester ISR-T120

- Range : X axis : 17.5mm
Z axis : 640 μ m (-320 μ m~320 μ m)
- Accuracy : \pm 10%
- Resolution (Ra): 0.001 μ m



Roughness Tester (Basic Type) ISR-C003

- Range : Ra, Rq: 0.05-15 μ m
Rz, Rt: 0.1-50 μ m
- Accuracy : \pm 10%
- Resolution (Ra): 0.01 μ m

CMM



Measuring Arms



Handheld 3D Scanners



Styli For CMM



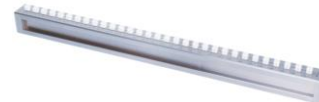
Ceramic Ball Gauges



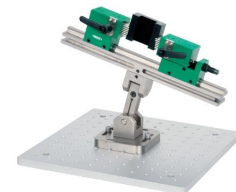
Gauge Block Stands for CMM



CMM Check Masters



Jigs For CMM



Coordinate Measuring Machines (Small Range) CMM-LM/CMM-LE Series



Standard accuracy (LM series)

- Range : X : 500-800mm
Y : 600-1500mm
Z : 400-600mm
- MPEE (μm) : $\pm(2.1+L/250)\mu\text{m} \sim \pm(2.7+L/250)\mu\text{m}$

High accuracy (LE series)

- Range X : 500-800mm
Y : 600-1500mm
Z : 400-600mm
- MPEE (μm) : $\pm(1.6+L/330)\mu\text{m} \sim \pm(2.1+L/330)\mu\text{m}$

Coordinate Measuring Machines (Large Range) CMM-PM/CMM-PE Series



Standard accuracy (PM series)

- Range : X : 600-1800mm
Y : 800-4000mm
Z : 600-1000mm
- MPEE (μm) : $\pm(1.5+L/300)\mu\text{m} \sim \pm(3.9+L/300)\mu\text{m}$

High accuracy (PE series)

- Range X : 600-1800mm
Y : 800-4000mm
Z : 600-1000mm
- MPEE (μm) : $\pm(1.2+L/350)\mu\text{m} \sim \pm(3.5+L/350)\mu\text{m}$

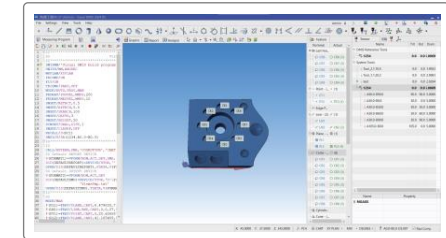
Workshop Coordinate Measuring Machines CMM-WM Series



- Ultra-high-speed measurement Measurement efficiency is three times of ordinary CMM
- Built-in temperature sensor with real-time temperature compensation
- Ready to use when connected to the power supply, no compressed air
- Dedicated touchscreen software with configurable access permissions ensures both convenience and safety during production site operations.



workshop specific software
(included)



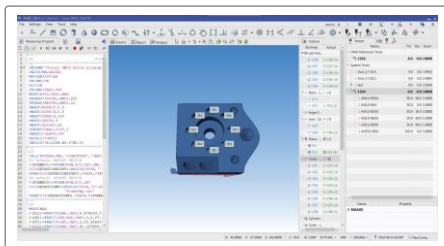
measurement software
(included)

Code	CMM-WM342A	CMM-WM342B	CMM-WM565A	CMM-WM565B
Range	300×400×200mm		500×600×500mm	
Accuracy MPEE	±(2.7+L/200) μm		±(3.1+L/200) μm	
Movement speed	860mm/s			
Moving acceleration	5000mm/s ²			

Automatic Measurement System RBT-CMM01

CUSTOM-
MADE

Measurement software (included)



Robot

- Robot arm spreading : 720mm
- Max. Working speed : 4000mm/s
- Max. Weight of workpiece : 8kg
- Repeat positioning accuracy : ± 0.02 mm
- Number of control axis : 6
- Communication protocols : ethernet modbus tcp

CMM*

- Range : 500×600×400mm
- Mpee : $\pm(2.3+L/250)\mu\text{m}$
- Mpep : 2.4 μm
- * CMM can select different models according to the workpiece

Measuring Arms



Adjustable tripod (optional)



Laser line probe (optional)

CMM-CM30



- Internal balance
- Aerospace grade carbon-fiber material
- Equivalent-arm design
- U-shaped anti-collision design of the base



3mm zircon ball probe (included)



6mm zircon ball probe (included)



calibration cone (included)

- High precision, CM series, 6-axis: range: 1500-4500mm
- High precision, CM series, 7-axis: range: 2000-4500mm
- Standard precision, BE series, 6-axis: range: 1500-4500mm
- Ultra High Precise: HP series, 6-axis: range: 1500-4500mm
- Ultra High Precise: HP series, 7-axis: range: 2000-4500mm
- Temperature rate: 3°C/5min

Measuring Arms (Advanced)



Laser line probe (optional)



Adjustable tripod (optional)



CMM-HM30S



3mm intelligent probe (included)



6mm intelligent probe (included)



calibration cone (included)

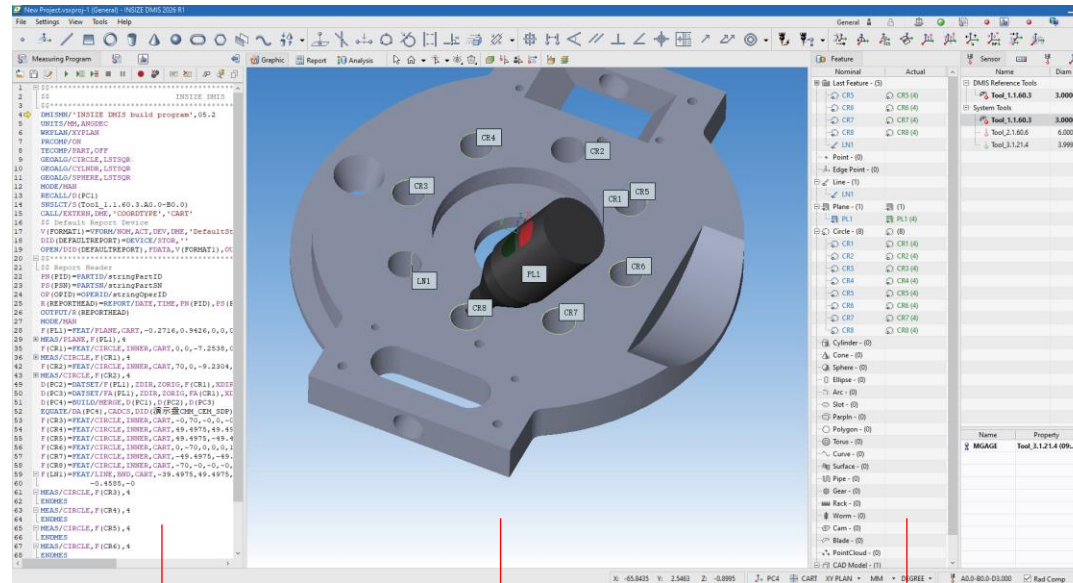
- Standard Accuracy, HE Series, 6-Axis : Measuring range : 1500-4500mm
- Standard Accuracy, HE Series, 7-Axis : Measuring range : 1500-4500mm
- High Accuracy ,HM Series, 6-Axis : Measuring range : 1500-4500mm
- High Accuracy ,HM Series, 7-Axis : Measuring range : 1500-4500mm
- Ultra High Accuracy, GP Series, 6-Axis : Measuring range : 1500-4500mm
- Ultra High Accuracy, GP Series, 7-Axis : Measuring range : 1500-4500mm

Software For Measuring Arms CMM-ARM-DMIS

- Simple and intuitive user interface
- Drag-and-drop operation for simplicity and efficiency
- Standard DMIS kernel with self-learning programming function
- Multilingual design
- The tolerance algorithm supports ISO and ASME Y14.5



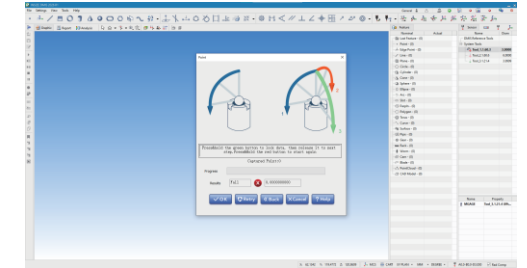
Measuring arm (optional) applications



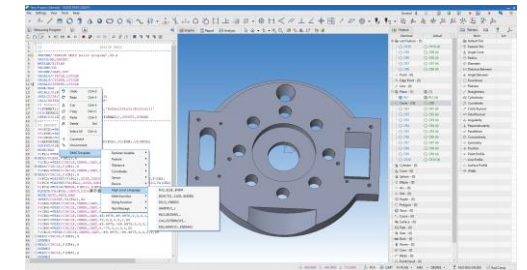
measuring program

integrated display window

element library



probe calibration



advanced programming

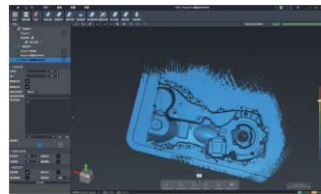
Handheld 3D Scanner LSM-L340/L560

- Three scanning modes to suit different situations
- AI algorithm module, greatly improve the scanning effect
- Highly efficient scanning with ultra-fast measuring speeds
- Metrology-grade measuring accuracy

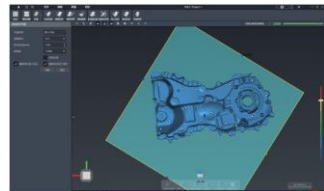
Scanning software (included)



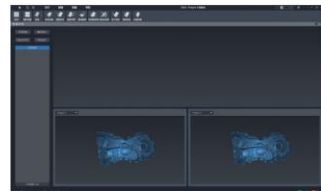
image-guide calibration



point cloud meshing



invalid area removal



scanning splicing



scan indicator



Multi-function keys

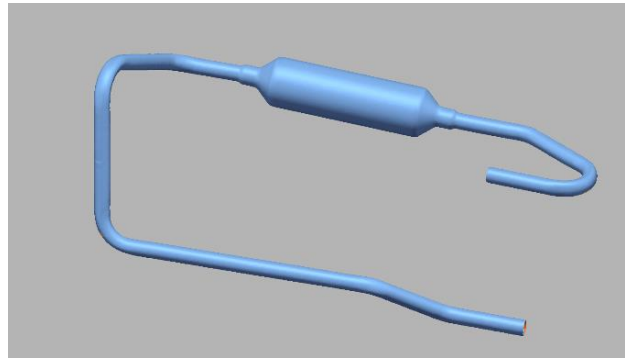
Code	LSM-L340	LSM-L560
High-speed scanning	26 cross blue laser lines	50 cross blue laser lines
Precision scanning	7 parallel blue laser lines	7 parallel blue laser lines
Deep hole scanning	1 blue laser line	1 blue laser line
Maximum scanning speed	5400000 measurements/s	7100000 measurements/s
Maximum resolution	0.01mm	

Handheld 3D Scanner -Case Studies on Pipe Bending

Multi-laser line scanning is simple to operate and fast



Obtaining a complete outline facilitates measurement and reverse engineering



Data archiving and commissioning of pipe bending equipment

Feature Table									
Length/Units	Volume	Data Alignment							
Control	Min	Max	Tol	Dev	Test	Out/In			
@ Pipe_1	14.90	14.92	1.78	0.02	Pass				
@ Pipe_2	14.90	14.92	1.78	0.02	Pass				
@ Pipe_3	14.90	14.94	1.78	0.04	Pass				
@ Pipe_4	14.90	14.94	1.78	0.04	Pass				
+ Feature_1	Z	2.82	3.82	1.78	0.02	Pass			
+ Feature_2	Y	2.82	3.82	1.78	0.02	Pass			
+ Feature_3	X	171.01	171.01	1.78	0.02	Pass			
+ Feature_4	Z	2.82	3.82	1.78	0.02	Pass			
+ Feature_5	Y	171.01	171.01	1.78	0.02	Pass			
+ Feature_6	X	171.01	171.01	1.78	0.02	Pass			
+ Feature_7	Z	155.84	152.36	1.78	0.02	Pass			
+ Feature_8	Y	155.84	152.36	1.78	0.02	Pass			
+ Feature_9	Z	155.84	152.36	1.78	0.02	Pass			
+ Feature_10	Y	155.84	152.36	1.78	0.02	Pass			
+ Feature_11	Z	171.01	171.01	1.78	0.02	Pass			
+ Feature_12	Y	171.01	171.01	1.78	0.02	Pass			
+ Feature_13	Z	171.01	171.01	1.78	0.02	Pass			
+ Feature_14	Y	171.01	171.01	1.78	0.02	Pass			
+ Feature_15	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_16	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_17	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_18	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_19	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_20	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_21	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_22	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_23	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_24	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_25	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_26	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_27	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_28	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_29	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_30	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_31	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_32	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_33	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_34	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_35	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_36	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_37	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_38	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_39	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_40	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_41	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_42	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_43	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_44	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_45	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_46	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_47	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_48	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_49	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_50	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_51	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_52	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_53	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_54	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_55	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_56	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_57	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_58	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_59	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_60	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_61	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_62	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_63	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_64	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_65	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_66	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_67	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_68	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_69	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_70	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_71	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_72	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_73	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_74	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_75	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_76	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_77	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_78	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_79	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_80	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_81	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_82	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_83	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_84	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_85	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_86	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_87	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_88	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_89	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_90	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_91	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_92	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_93	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_94	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_95	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_96	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_97	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_98	Y	183.29	183.29	1.78	0.02	Pass			
+ Feature_99	Z	183.29	183.29	1.78	0.02	Pass			
+ Feature_100	Y	183.29	183.29	1.78	0.02	Pass			

Feature Table									
Length/Units	Volume	Data Alignment							
Control	Min	Max	Tol	Dev	Test	Out/In			
+ Feature_1	X	7.80	11.87	1.80	0.02	Pass			
+ Feature_2	Y	7.80	11.87	1.80	0.02	Pass			
+ Feature_3	Z	7.80	11.87	1.80	0.02	Pass			
+ Feature_4	X	194.43	194.37	1.80	0.02	Pass			
+ Feature_5	Y	7.80	11.87	1.80	0.02	Pass			
+ Feature_6	Z	7.80	11.87	1.80	0.02	Pass			
+ Feature_7	X	171.01	171.00	1.80	0.02	Pass			
+ Feature_8	Y	7.80	11.87	1.80	0.02	Pass			
+ Feature_9	Z	155.84	152.36	1.80	0.02	Pass			
+ Feature_10	X	155.84	152.36	1.80	0.02	Pass			
+ Feature_11	Y	249.29	249.29	1.80	0.02	Pass			
+ Feature_12	Z	155.84	152.36	1.80	0.02	Pass			
+ Feature_13	X	171.01	171.00	1.80	0.02	Pass			
+ Feature_14	Y	171.01	171.00	1.80	0.02	Pass			
+ Feature_15	Z	171.01	171.00	1.80	0.02	Pass			
+ Feature_16	X	171.01	171.00	1.80	0.02	Pass			
+ Feature_17	Y	171.01	171.00	1.80	0.02	Pass			
+ Feature_18	Z	183.29	183.29	1.80	0.02	Pass			

- Supports exporting inspection reports in multiple formats, including PDF, Excel and Word, for convenient archiving and storage
- Precise calibration of tube bending machinery based on actual measurement data such as XYZ and LRA obtained from testing

Gauge Block Stands For CMM



6885

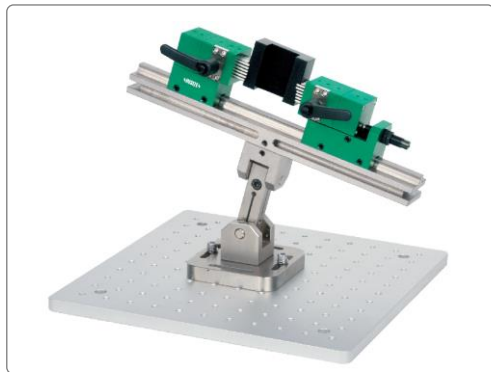
- Length: 500mm, 600mm, 650mm, 700mm, 750mm, 800mm, 850mm, 900mm, 1000mm
- Height: 235mm, 355mm, 475mm



7398

- Applicable block length : 30mm、100mm、125mm、150mm、175mm、200mm、250mm、300mm、400mm、500mm、600mm、700mm、800mm、900mm、1000mm
- Column height : 450mm
- Angle adjustment range : 0 ° ~90°

Jigs For CMM



Anvil Ø2.5mm



Anvil Ø2.5mm



Anvil ø6mm



Anvil ø6mm

08

Profile Projectors, Quick Measurement Systems, Vision Measuring Systems (P1)



Profile Projectors



Large Size Profile Projectors



Sheet Metal Vision Measuring Systems



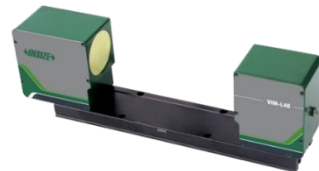
Quick Measurement Systems



Quick Automatic Measurement Systems



Online/Offline Quick Measurement Systems



2D+3D Composite CNC Vision Measuring Systems



CNC Vision Measuring Systems



08

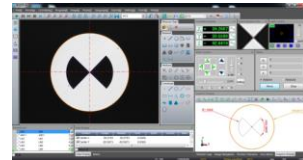
Profile Projectors, Quick Measurement Systems, Vision Measuring Systems (P2)



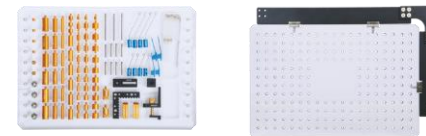
**CNC Vision Measuring Systems
(Advanced Type)**



Vision Measuring Softwares



**Jig Set For Vision
Measuring Systems**



Standard Glass Scales



Contact Angle Goniometer



Profile Projectors



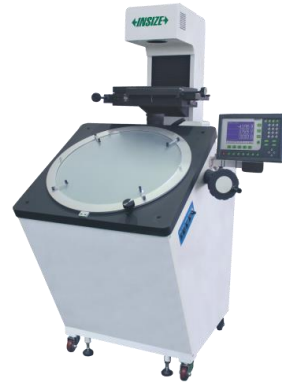
High Precision Profile Projectors
ISP-A5000E Series

Projector screen diameter :
Ø300mm



Horizontal Profile Projectors
ISP-W4025/ISP-A7000E

Projector screen diameter :
Ø400mm



Profile Projectors
ISP-A6000/ISP-A6000E

Projector screen diameter :
Ø600mm



Large Size Profile Projector
ISP-T800

Projector screen diameter :
Ø800mm



Large Size Profile Projector
ISP-T1200

Projector screen diameter :
Ø1200mm

Quick Measurement Systems



Large Size Quick Measurement System
QMS-A450



Quick Measurement Systems (With Stitching)
QMS-A220/QMS-A315



Quick Measurement Systems (Without Stitching)
QMS-A110/QMS-A200

Quick Automatic Measurement Systems

**CUSTOM-
MADE**



RBT-QM01



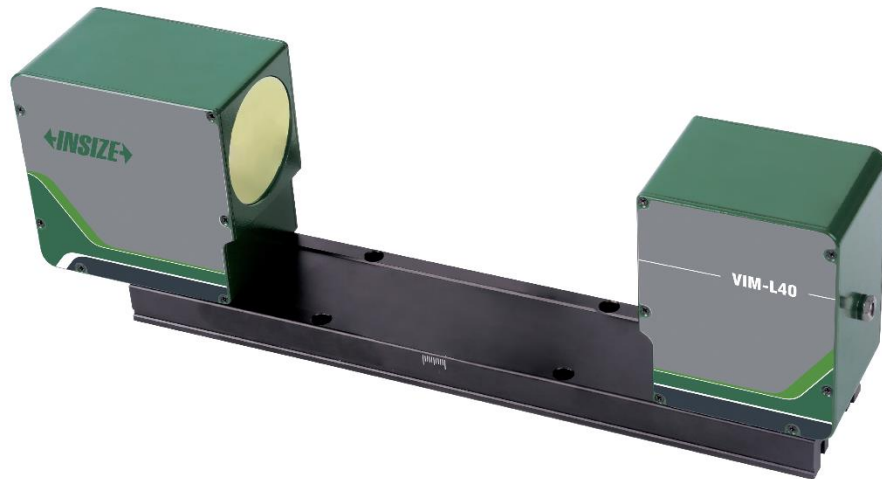
RBT-QM02

Code	RBT-QM01	RBT-QM02
Robot arm spreading	727mm	400mm
Max working speed	4000mm/s	7225mm/s
Max weight of workpiece	8kg	3kg
Repeat positioning accuracy	±0.02mm	±0.02mm
Number of control axis	6	4
Communication protocols	Ethernet Modbus Tcp	

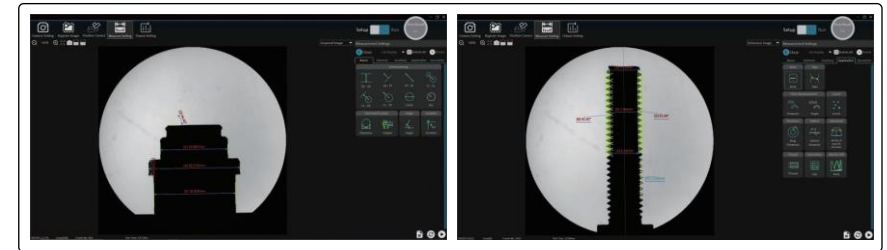
Online/Offline Quick Measurement System VIM-L Series

TELECENTRIC SYSTEM WITH
LARGE DEPTH OF FIELD

ONLINE/OFFLINE DIMENSION
MEASUREMENT



Application



Automatically measure widths, pitch, arc, angles at
the same time, simple and efficient

- Low-distortion system assures the accuracy throughout the field of view
- The dual telecentric optical system ensures sharp edges without losing accuracy even for misaligned targets
- Easy to use measurement tools for simplified setup

Measurement range

- View field : high precision measurement area : $\text{Ø}26\text{mm}-\text{Ø}60\text{mm}$
full measurement area : $\text{Ø}40\text{mm}-\text{Ø}120\text{mm}$
- Depth of field : high precision measurement area : 10mm-20mm
full measurement area : 20mm-40mm

Measurement accuracy

- high precision measurement area : $\pm 2\mu\text{m}\sim\pm 4\mu\text{m}$
- full measurement area : $\pm 3\mu\text{m}\sim\pm 5\mu\text{m}$

Vision Measuring Systems



2D+3D Composite CNC Vision Measuring Systems ISD-U Series



CNC Vision Measuring Systems (With Stand) ISD-E320/ ISD-E430



CNC Vision Measuring Systems (Standard Type) ISD-V220CNCA



Manual Vision Measuring Systems (Standard Type) ISD-V Series



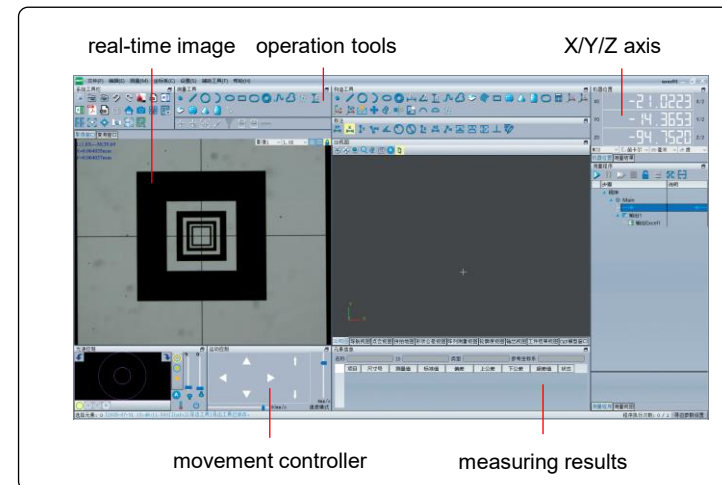
CNC Vision Measuring Systems ISD-V500N Series

CNC Vision Measuring Systems (Advanced Type) ISD-K Series



- RSF brand linear scales
- Panasonic servo control motor, with precise positioning performance in high-speed movement

Software (included)



HIGH-RESOLUTION
AUTO ZOOM LENS

NAVIGATION
CAMERA

Code	ISD-K322	ISD-K432	ISD-K542
Measuring range (X×Y×Z)	300×200×200mm	400×300×200mm	500×400×200mm
Resolution of X/Y/Z axis	0.5μm		
Accuracy of X/Y axis	≤(2.0+L/200)μm*		≤(2.5+L/200)μm*
Magnification	27X~356X (on 23.8" monitor)		

*L is the measuring length in mm

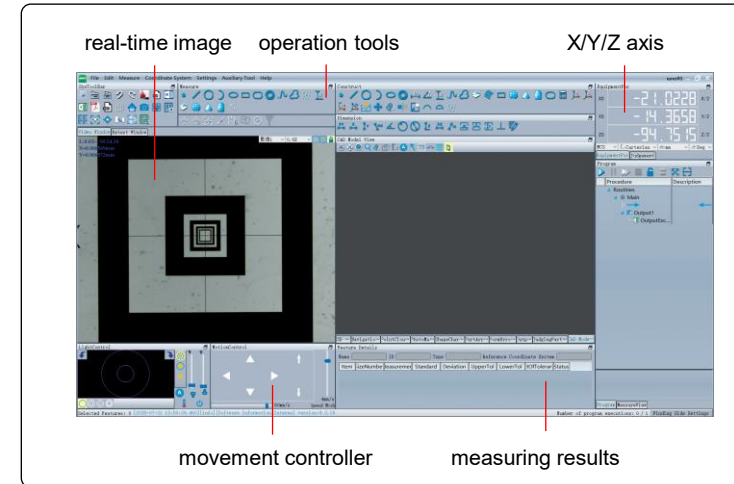
CNC Vision Measuring Systems (Advanced Type) ISD-Q Series



Software (included)

HIGH-RESOLUTION
AUTO ZOOM LENS

NAVIGATION
CAMERA



Code	ISD-Q542	ISD-Q652	ISD-Q762	ISD-Q1210	ISD-Q1612	ISD-Q2015
Measuring range (X×Y×Z)	400×500×200mm	500×600×200mm	600×700×200mm	1000×1200×200mm	1200×1600×200mm	1500×2000×200mm
Accuracy of X/Y axis	≤(2.5+L/200)μm (L is the measuring length in mm)					
Resolution of X/Y/Z axis	0.5μm					
Magnification	27X~356X (on 23.8" monitor)					

Tool Presetters



Tool Presetters (Projector Type)



Cutting Tools Microscopes



Cutting Tools Vision Measuring Systems



Tool Presetter



Shank Runout Testers



Shank Taper Inspection Instruments



Tool Presetters



ISP-B420

- Maximum tool diameter (X axis) : 420mm
- Range of snap gauge (X axis) : 100mm
- X/Z axis resolution : 1µm
- Maximum tool height (Z axis) : 420mm/600mm
- Repeatability : X axis : 2µm, Z axis : 2µm



ISP-A350

- Maximum tool diameter (X axis) : 320mm
- Repeatability : X axis : 2µm, Z axis : 2µm
- Maximum tool height (Z axis) : 350mm
- X/Z axis resolution : 1µm

Dual-display Cutting Tools Microscope ISM-CT600

MULTI-ANGLE
OBSERVATION

4K



- Cutting tools range: $\varnothing 3\sim 20\text{mm}$, length 20~60mm
- Resolution: 3840×2160
- View field: 1.4×2.5~14×25mm
- Magnification: 23X~230X (on 27" monitor)
- Rotary table: sliding distance: 90mm, rotation range: 0~220°

Cutting Tools Microscope ISM-CT820



- Cutting tools range : Ø4-12mm, length 30-75mm
- Lens : step-zoom lens
- Output : HDMI
- Resolution : 1920×1080

- Split screen design, zoom in and out independently
- One mouse can operate two cameras
- Display cross hairs
- Brightness, contrast ratio, white balance are adjustable
- Basic measuring tools including point to point, point to line, line to line, angle, three-point circle, etc.

Cutting Tools Vision Measuring System TLP-D150

CUTTING TOOLS
MEASUREMENT

SCAN MAXIMUM
PROFILE

CAD
COMPARISON



- Measuring range (X×Y) : 150×60mm
- Applicable range : 0-40mm
- Resolution of X/Y axis : 1μm
- Accuracy of X/Y axis : 5μm
- Magnification : 20X-240X(on 27" monitor)

- Measurement and inspection of milling cutters, drill bits, non-standard molding tools under surface light
- Profile measurement, automatic profile capture for straight and helical fluted tools
- High magnification for clear observation of tool chipping and grinding wheel pattern on the back face
- The crosshairs of the cutting edge can be automatically recognized and captured

Large Depth Of Field 3D Measuring Microscopes



Toolmaker Microscopes



Universal Toolmaker Microscope



Motorized Zoom 4K Measuring Microscope



Digital Microscopes



2D Manual Rotation 3D Microscope (With Display)



Flexible Arm Auto Focus Digital Microscopes



Digital Measuring Microscopes



Low-Magnification High-Definition Stereo Microscopes



Metallurgical Microscopes



Zoom Stereo Microscopes



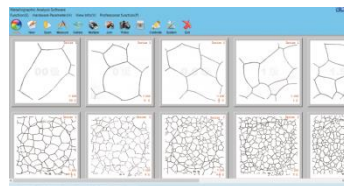
Biological Microscopes



Digital Cameras For Microscopes



Metallurgical Analysis Softwares



Portable Measuring Microscopes



Table Magnifiers With Illumination



Digital Magnifiers



Magnifiers



Telescoping Inspection Mirrors



Telescoping Pick-up



White Light Interference Measuring Microscope ISM-A8000

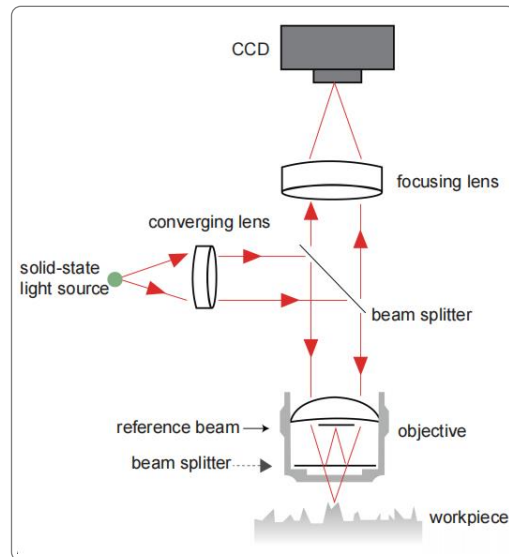
NON-CONTACT ROUGHNESS
MEASUREMENT

SUB-NANOMETER
VERTICAL RESOLUTION

MOTORIZED
STITCHING

MICRO 3D MORPHOLOGY
MEASUREMENT

working principle of white light
interference measuring microscope



computer is included



- Measuring mode : PSI (physiognomic scanning)/VSI (vertical scanning)/bright field
- Light source : white light, green light
- Resolution of camera : 1600×1100
- View field (20X interference objective) : 414×414μm

Large Depth of Field 3D Measuring Microscope (Advanced Type) ISM-H5000



controller

STEREOSCOPIC 3D IMAGING

IMAGE STITCHING

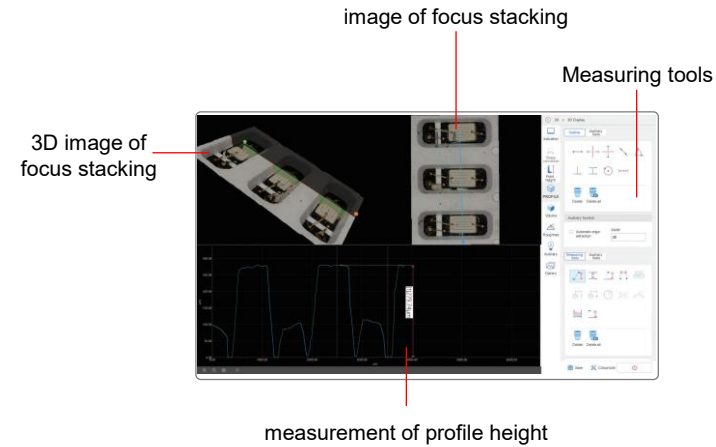
MOTORIZED XYZ AXIS

2D/3D MEASUREMENT

MAGNIFICATION 30-6000X

MOTORIZED ZOOM LENS

MAP NAVIGATION



- Objective : 1.5X, 5X, 20X, 50X
- Maximum depth of field : 30mm
- Max. height of workpieces : 90mm
- View field : 50.60×38.00μm-9977.30×7483.00μm

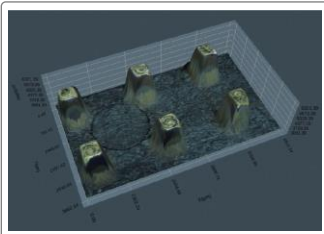
- Horizontal resolution:0.42μm
- Working distance:2-30mm
- Accuracy: $\pm(0.5+0.005L)\mu\text{m}$
(L is measuring length or height in μm)

Large Depth of Field 3D Measuring Microscope

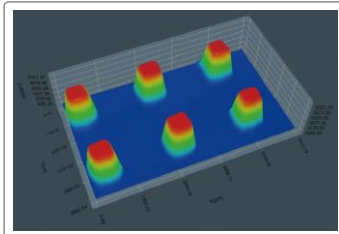


5324-K210

constructing stereoscopic 3D imaging that can be dragged and rotated for viewing



the chromatogram height clearly shows the difference in three-dimensional height



5324-K220

fast measurement of profile height difference



ROTATABLE WORKTABLE

PLANE MEASUREMENT AND PROFILE HEIGHT MEASUREMENT

ROTATABLE OBSERVATION STEREOSCOPIC 3D IMAGING

AUTO FOCUS

Code	5324-K210	5324-K220
Stand	vertical stand	tilted stand
Magnification	100X~750X	
Sensor	1/2" CMOS	
Pixel	2M	
Resolution	1920 × 1080	
Frame rate	60fps	

High Magnification Toolmaker Measuring Microscopes (Advanced Type) ISD-TM Series



- Optical magnification : 50X-500X, up to 1000X with optional 100X objective
- Digital magnification :150X-1500X(on 23.8" monitor), up to 3000X with optional 100X objective

Code	ISD-TM215	ISD-TM320	ISD-TM330	ISD-TM430
X/Y axis travel	200×150mm	300×200mm	300×300mm	400×300mm
Metal stage size	400×280mm	500×350mm	500×450mm	600×450mm
Glass stage size	245×192mm	350×250mm	350×300mm	450×300mm

Digital Microscopes (P1)



Auto Focus Digital Microscopes (Large View Field) 5302-AF105/AF108



Manual 3d Rotation Microscope 5313-S407



Digital Measuring Microscopes ISM-DL301



Motorized Focus Stacking Microscope (Large Depth Of View) ISM-DL520

Digital Microscopes (P2)



Horizontal Microscope
5316-HM810



Flexible Arm Auto Focus Digital Microscopes
5317-AF



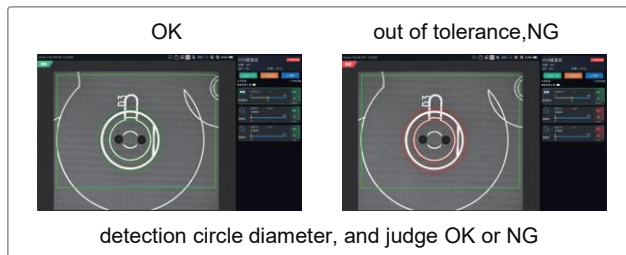
Auto Focus Digital Microscope (Advanced Type)
5319-AF290

Smart Microscope ISM-DL402

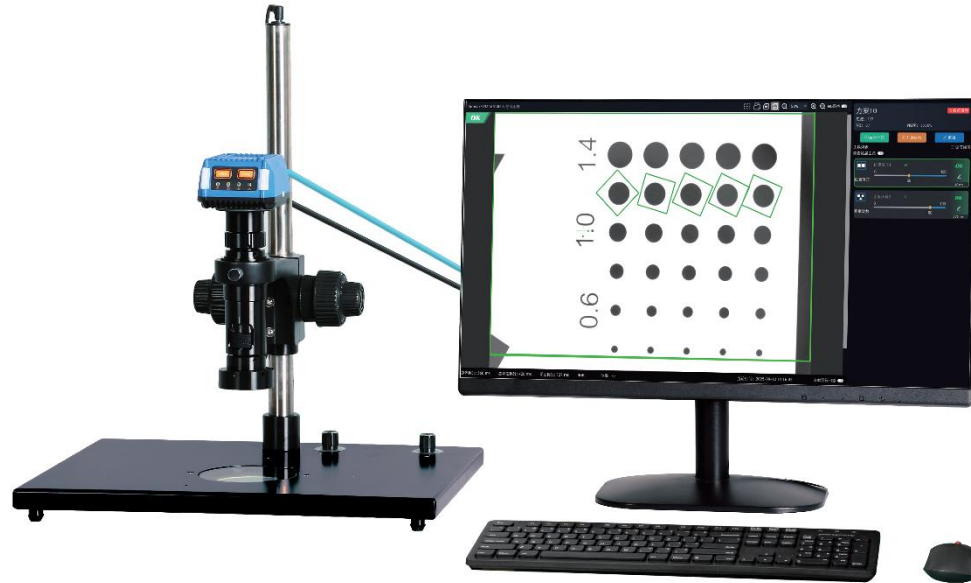
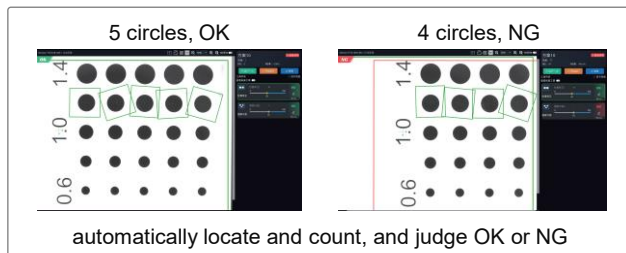
dimension measurement



circle diameter inspection



counting

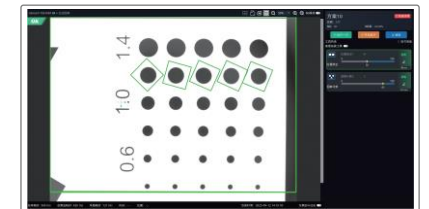


AUTOMATIC
RECOGNITION

AUTOMATIC
MEASUREMENT

AUTOMATICALLY LOCATE WORKPIECES
REGARDLESS OF POSITION AND DIRECTION

Software for computer (included)



- Magnification* : 13.5X~90X
- View field : 17×14~2.5×2mm
- Sensor : 1/1.8" CMOS
- Pixel : 5M
- Resolution : 2448×2048
- Single pixel size : 2.74×2.74μm
- Frame rate : 30fps

*Magnification for using the measuring tool: 13.5X~54X

Motorized Zoom Microscope (Basic Type) 5325-VM100

PROGRAMMABLE SEGMENTED
RING LIGHT

DISPLAY ACTUAL
MAGNIFICATION



Focus stacking



focus on the top



focus on the bottom



clear image of both
top and bottom

- Measuring accuracy : $\pm 0.02\text{mm}$
- Frame rate : 60fps
- Magnification : 10-68.5X (1X included)
5-34.2X (0.5X optional)

Metallurgical Microscopes (Advanced Type) 5108



- Infinite chromatic aberration correction optical system
- Three way observation tube with infinite hinge
- Translucent and reflective frame, front low-hand position coarse and fine coaxial focus adjustment mechanism, with adjustment elastic device to prevent sliding and random upper limit device
- Bright and dark field five-hole converter with DIC slot
- Adopt digital dimming, with light intensity reset and setting function
- With polarizer insert plate and 360° rotating analyzer insert slot

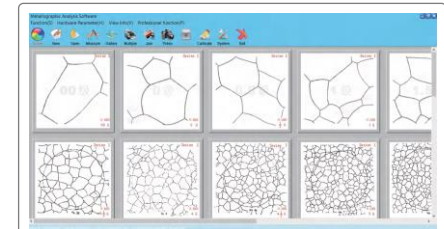
- Optical magnification : 50X-500X
(up to 1000X with optional 100X objective)
- Digital magnification : 170X-1700X(on 21.5" monitor), up to 3400X with optional 100X objective

Metallurgical Analysis Software And Camera ISM-MAS100



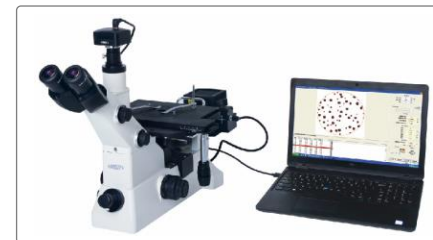
- Sensor : 1/1.8" CMOS
- Pixel : 6.3M
- Resolution : 3072×2048

Metallurgical analysis software (included)



this software can be used with variety of metallographic microscopes for acquisition, processing, analysis, report generation of metallurgical images

Application



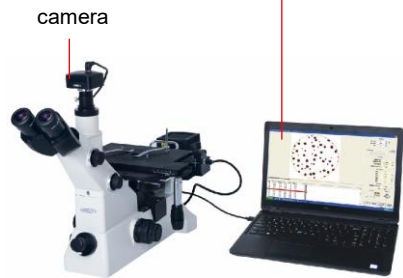
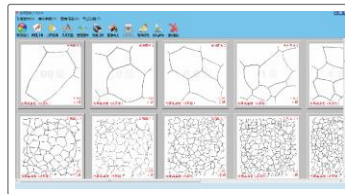
- More than 100 standards (ISO, ASTM, JIS, etc.)
- For metallurgical microscopes
- The camera can be inserted into the eyepiece tube or camera connector of microscopes
- Metallurgical analysis software is included, which can make comparative analysis, measurement and evaluation of various materials

Software And Cameras

Camera (included)



Metallurgical analysis software (included)

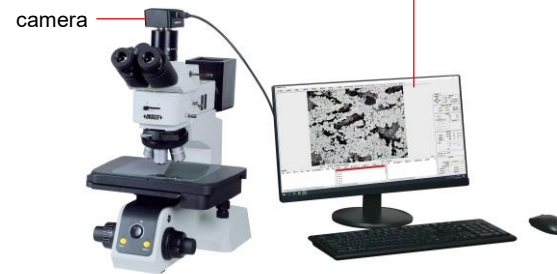
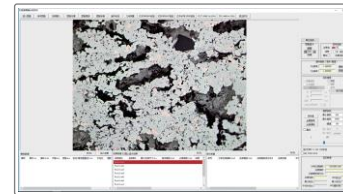


camera

application

Metallurgical Analysis Software And Camera
ISM-MAS100

Porosity measurement software (included)



camera

application

Porosity Measurement Software And
Camera ISM-MAS200

Weld seam measurement software (included)



camera

application

Weld Seam Measurement Software And
Camera ISM-MAS300

Digital Depth Measuring Microscope ISM-PM110

- Measuring the depth of scratches, chips, burrs, pitting, chattering, scribe lines, engraving, markings, etc.
- Built-in light source for on-the-spot detection
- Equipped with a display indicator that clearly shows the data

- Total magnification : 100X
- Eyepiece : 10X with graduation
- Objective (achromatic) : 10X (numerical aperture 0.25)
- Working distance : 7mm
- Accuracy : $\pm 0.02\text{mm}$
- Viewing field : $\varnothing 1.8\text{mm}$
- Focus range : 30mm
- Depth measurement distance : 7mm
- Illumination : LED light



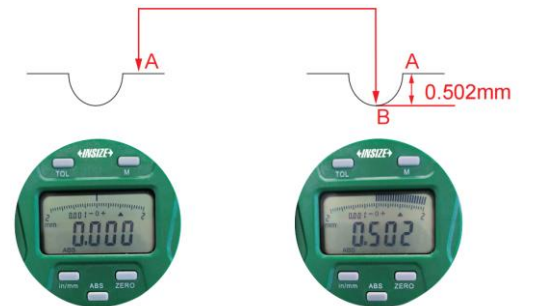
10X eyepiece
with graduation

Depth measurement

focus on surface A



focus on surface B



Measuring Magnifiers (With Illumination) 7527

- Base with scale
- With 5 white LED and 5 UV LED
- Charging port: Type-C
- Work for 30min after fully charged



Base with scale



Code	7527-D1	7527-D2	7527-D1B
Magnification	10X	10X	10X
Lens diameter (ØD)	Ø30mm	Ø30mm	Ø30mm

Videoscopes

Videoscopes (Desk Type)



Videoscopes



Multipurpose Videoscopes



Carbon Fiber Telescopic Pole Videoscopes



Rigid Borescopes



LED Light Handles



Cameras (With Display)



Fixture For Rigid Borescopes



Videoscope (Desk Type) ISV-Y



rigid straight lens tube,
front view/side view/front
view & side view

Lens tube:

- Diameter: Ø1.2-Ø6.0mm
- Length: 90mm - 300mm (optional 90-1000mm)



bending spring lens tube

Lens tube:

- Diameter: Ø3.0-Ø7.0mm
- Length: 1000mm

Videoscopes (Cable Is Optional) ISV-L Series



REAR FIBER
ILLUMINATION

Changeable lens cable



Front view :

- One-direction cable (no bending): diameter : Ø0.95mm-Ø1.5mm
- Two-direction bending cable: diameter : Ø1.8mm-Ø2.4mm
- Four-direction bending cable: diameter : Ø2.8mm-Ø6.0mm

Side view :

- Two-direction bending cable : diameter : Ø1.8mm
- Four-direction bending cable : diameter : Ø2.8mm-Ø6.0mm

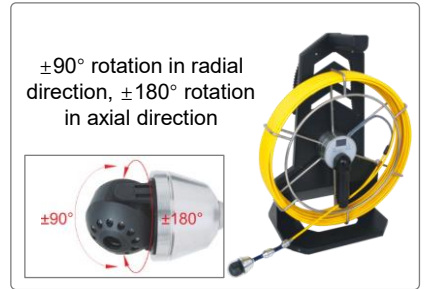
Multipurpose Videoscope VSP-201



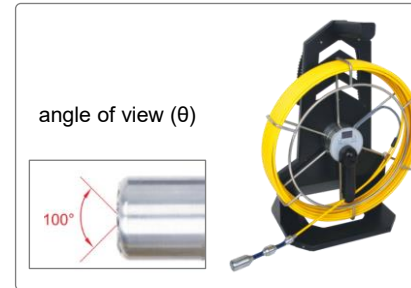
Four-direction bending cable



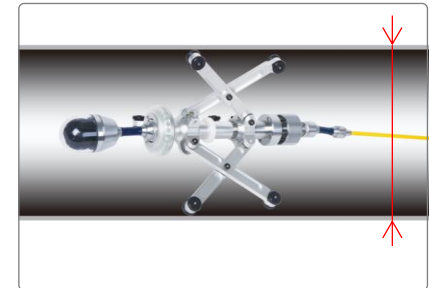
Rotating lens cable



Wide-angle lens cable



Adjustable support



4K Carbon Fiber Telescopic Pole Videoscope ISV-CF5

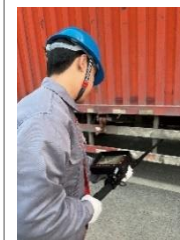


7" LCD touch screen

IP65
WATERPROOF

- Resolution : 3840×2160
- Lens diameter (ØD) : 40mm
- Pole : carbon fiber, can be fixed between 1~5 meters

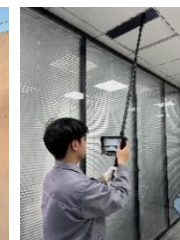
Application



underbody
inspection



constructure
inspection
(WIFI real-time
image transmission)



ceiling duct
inspection



roof inspection



car roof
inspection

- Dual motorized control of lens view, 300° horizontal and vertical 360° rotation
- 4K HD true color camera
- Built-in infrared and white light for night and day use

Coating Thickness Gauges



Electromagnetic Ultrasonic Thickness Gauges



Ultrasonic Thickness Gauges



Glass Thickness Meters



Laser Distance Meters



Laser Scan Micrometers



Dual Axis Photoelectric Autocollimators



Air Gauges And Displays



12

Other Dimension Measuring Instruments (P2)



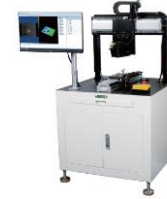
Length Presetters



Digital Gap Gauges



3D Line Laser Profile Measuring Machines



Automatic Vision Inspection Machines



Semi-Auto Measurement Stations



Three-Dimension Full-Field Strain Measurement Systems



Large Field Of View Dynamic Measurement Systems



Total Stations



Pen Type Electromagnetic Ultrasonic Thickness Gauges EMU-A100/EMU-B100

- Compact size, easy to carry, comes with waveform display and full-function keyboard, easy to adjust the measurement parameters
- Non-contact measurement of rough, corroded surfaces without sanding
- Suitable for inspection of workpieces of various shapes, such as pipes, small tubes, elbows, etc.

COUPLING AGENT IS NOT REQUIRED

MEASUREMENT THROUGH COATING AND RUST LAYER

WORK AT MAXIMUM 600°C

WITH A AND B SCAN



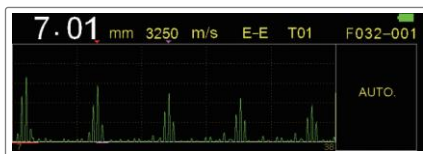
high temperature probe (optional)



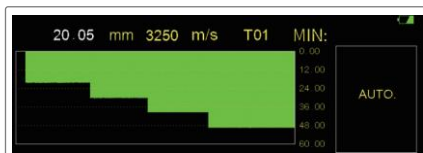
calibration block (included)



A-Scan



B-Scan



- Measuring range : 1.5-300mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.04\text{mm}$ ($H \leq 10\text{mm}$)
 $\pm (0.04 + H/1000)\text{mm}$ ($10 \leq H < 100\text{mm}$)
 $\pm H/333$ ($H \geq 100\text{mm}$)
 H is measuring thickness in mm

Built-In Wireless Ultrasonic Thickness Gauge (Advanced Type) ISU-800DWL



transducer ISU-S15-P06
(included)



PENETRATE COATING AND MEASURE
THE THICKNESS OF SUBSTRATE

BUILT-IN
WIRELESS

REAL-TIME TEMPERATURE
COMPENSATION

DATA
OUTPUT

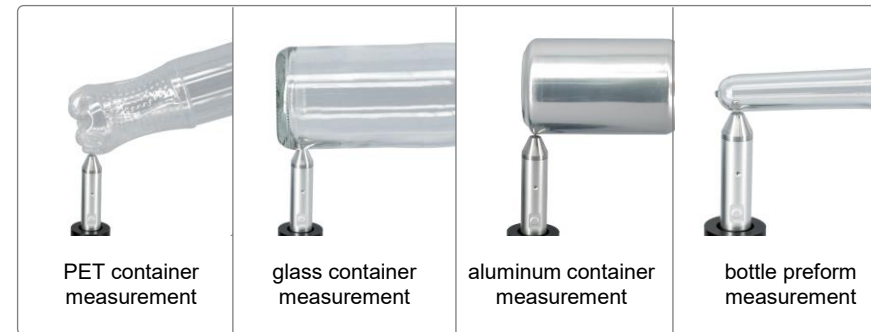
- Measuring (included) : I-E : 0.9-28mm
E-E : 0.15-14mm
 - Resolution : 0.01mm/0.001mm
 - Accuracy : $\pm 0.02\text{mm}/0.3\%H$ * (take the larger one)
- * H is the measured thickness in mm

Hall-effect Thickness Gauge 5408-HE25



DATA
OUTPUT

Measurement Application



PET container
measurement

glass container
measurement

aluminum container
measurement

bottle preform
measurement

- Range : 4mm/ 6mm/ 8mm/ 10mm
(determined by the calibration performed with standard gauge blocks)

Accuracy of single-point calibration	Accuracy of multi-point calibration	Suggested measuring range
5%+0.003mm (calibrated with 1.59mm steel ball)	3%+0.003mm (calibrated with gauge blocks and 1.59mm steel ball)	0~2mm
4%+0.003mm (calibrated with 3.18mm steel ball)	2%+0.003mm (calibrated with gauge blocks and 3.18mm steel ball)	0~4mm
3%+0.003mm (calibrated with 4.76mm steel ball)	1%+0.003mm (calibrated with gauge blocks and 4.76mm steel ball)	0~4mm or 0~6mm
3%+0.003mm (calibrated with 5.00mm steel ball)	1%+0.003mm (calibrated with gauge blocks and 5.00mm steel ball)	1~8mm or 1~10mm

Ultrasonic Thickness Gauges



Ultrasonic Thickness Gauge
ISU-810D



Ultrasonic Thickness Gauge
ISU-720D



Ultrasonic Thickness Gauge (For Thick Workpieces
Made Of Organic Materials) ISU-710D



Ultrasonic Thickness Gauge (For Thin Workpieces)
ISU-700D



Ultrasonic Thickness Gauge
(Through Coating) ISU-300D



Ultrasonic Thickness Gauge
ISU-250C



Ultrasonic Thickness Gauge
ISU-200D



Ultrasonic Thickness Gauge (Basic Type)
ISU-100D

Laser Scan Micrometers



Mini Laser Distance Meter 9565



Laser Scan Micrometers LDM Series

Automatic Laser Scan Micrometer LDM-AT01



- Motorised rotation with adjustable speed
- Auto-moving laser scan micrometer
- Measure the outer diameter, roundness and runout of workpieces at multiple sections

CUSTOMIZED ACCORDING
TO WORKPIECES

Clamping workpieces by
center-type bench center



Clamping workpieces by
v-type bench center



Center-type bench center

- Measuring range of workpieces :
length : 5-300mm
Diameter : 3-60mm
Max. Weight : 20kg

• Accuracy at 25°C : $\pm(0.5+10\%d)\mu\text{m}$, D is measuring diameter in mm

V-type bench center

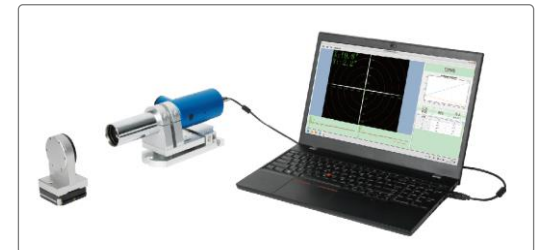
- Measuring range of workpieces :
length : 10-230mm
Diameter : 10-60mm
Max. Weight : 1.5kg

Dual Axis Photoelectric Autocollimator CMS-L401

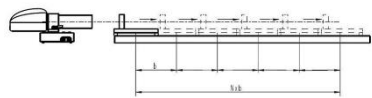
- Dual axis simultaneous measurement, convenient and efficient
- Electronic eyepiece, low aiming error
- High resolution photodetector, high measurement accuracy
- Semiconductor LED light source, long service life of the light source
- Automatic curve plotting, automatic error calculation
- Multiple data processing methods, can generate standard Excel reports



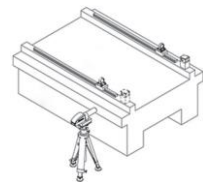
Software (included)



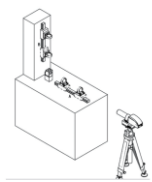
Application



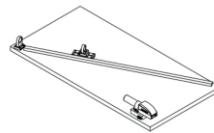
straightness measurement



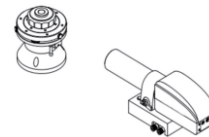
parallelism measurement



perpendicularity
measurement



flatness
measurement



turntable
measurement

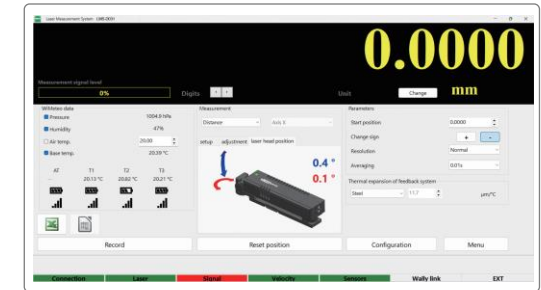
- Field of view range : 3200×2400"
- Accuracy : $\pm 1000''$ within $\pm 1''$
- Resolution : 0.1"

Linear Laser Interferometer Measurement System LMS-D301

- Built-in alignment tools indicator for the laser head, it shows the pitch and yaw angles, it helps to reduce setup time
- Unique machine tools analysis capability, high dynamic sampling frequency
- Compensated measurement of linear positioning accuracy for CNC/CMM machines



Software (included)



Laser head and tripod (included)



linear retro-reflector
(included)



linear interferometer
(included)



environment compensation
sensor (included)



material temperature
compensation sensor (included)

Laser head specification

- Laser type : He-Ne laser
- Wavelength accuracy : $\pm 0.005\text{ppm}$
- Short term stability : $\pm 0.001\text{ppm}$
- Long term stability : $\pm 0.001\text{ppm}$

Distance specification

- Range : 0~30m
- Resolution : 100pm (0.1nm)
- Accuracy : $\pm 0.4\mu\text{m/m}$

Air Gauges And Air Gauge Displays



9408



9401

- Can store 10 measuring programs, and the program can be switched quickly
- Data storage and query function

Range	Resolution		Accuracy
	LED	Display	
10μm	0.1μm	0.1μm	0.2μm
20μm	0.2μm	0.1μm	0.4μm
50μm	0.5μm	0.5μm	1μm
100μm	1μm	0.5μm	2μm

Multi Channel Air Gauge Displays 9440-DP Series

- With data statistics and analysis functions, can display graphs and Xbar-R control charts

DATA TRANSMISSION
CAN BE CUSTOMIZED

TOUCH
SCREEN



Back of display



- Number of channels : 1-8
- Resolution : 0.1 μ m
- Range : 10-100 μ m(adjustable)
- Accuracy : 0.2-3 μ m

Scanning gun input product code function (customised)



Air filter (optional)



Foot switch (optional)



RS232 cable (optional)



SPC Measurement Station CMW-□□□



graphical guide for measurement in software

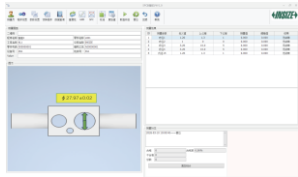
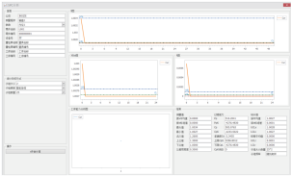
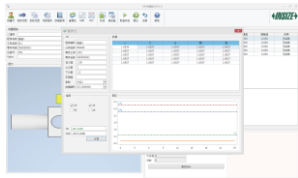
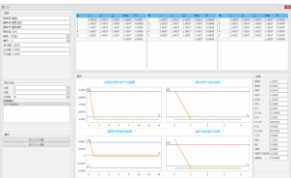
operation button

- Flexible instrument configuration: selection of air gauges, inductive probes (LVDT), and measuring tools (e.g., digital calipers, micrometers, digital Indicators) and Go/No-Go gauges based on specific requirements
- Visual software guidance: graphical interface functionality that provides step-by-step instructions and highlights the specific location of each dimension to be measured
- Light indicator guidance: signal lights to guide the operator to the specific gauge or instrument required for each measurement step
- Data analysis & reporting: software equipped with modules for real-time data processing and professional report generation

Optional measuring tools and instruments

 <p>air gauges</p>	 <p>inductance probes</p>
 <p>measuring tools</p>	 <p>Go/No-Go gauges</p>

SPC measurement software system (customizable)

 <p>measurement interface</p>	 <p>SPC analysis</p>
 <p>CG analysis</p>	 <p>GRR analysis</p>

Length Presetters (Motorized Type) ISQ-S Series



**REPLACING RING GAUGES
AND GAUGE BLOCKS**

**CAN BE USED
IN WORKSHOPS**

**ATTENTION: WORKING TEMPERATURE 10-35°C,
TEMPERATURE CHANGE $\leq 1^\circ\text{C/h}$**

**ATTENTION:
ADAPTERS ARE NEEDED**

Application

zero setting and calibration of bore gauges	zero setting and calibration of split type dial bore gauges	zero setting and calibration of internal/external snap gauges	zero setting and calibration of three-point internal micrometers	zero setting and calibration of micrometers	zero setting and calibration of tubular inside micrometers	caliper calibration

- Range : inter diameter 0.1-5000mm
outer diameter 40-5040mm
- Resolution : 0.5 μm
- Accuracy : $(1.5+L/500)\mu\text{m}$ / $(3+L/500)\mu\text{m}$
(L is measuring length in mm)
- Repeatability : 0.8 μm

Length Presetters (Motorized/Manual Type) ISQ-M Series

- Range : inter diameter 0.1-2950mm
outer diameter 40-2990mm
- Resolution : 0.5 μ m
- Accuracy : (1.5+L/500) μ m
(L is measuring length in mm)
- Repeatability : 0.8 μ m

**REPLACING RING GAUGES
AND GAUGE BLOCKS**

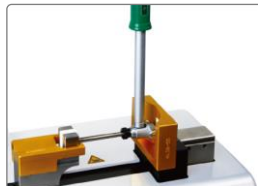
**CAN BE USED
IN WORKSHOPS**

**ATTENTION: WORKING TEMPERATURE 10-35°C,
TEMPERATURE CHANGE $\leq 1^\circ\text{C/h}$**

**ATTENTION:
ADAPTERS ARE NEEDED**



Application



zero setting and calibration of bore gauges



zero setting and calibration of split type dial bore gauges



zero setting and calibration of internal/external snap gauges



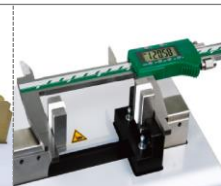
zero setting and calibration of three-point internal micrometers



zero setting and calibration of micrometers



zero setting and calibration of tubular inside micrometers



caliper calibration



measuring workpieces (manual mode)

Digital Gap Gauges (P1)



Application



- Customizable measuring range: 0.35-6mm
- Effective range: ± 0.5 mm
- Accuracy: range: (0.35-2)mm, Accuracy : ± 0.03 mm
range: (0.35-6mm), Accuracy : ± 0.04 mm

- Resolution: 0.1/0.01/0.001mm
- Max. customizable length: 500mm
- Repeatability: 0.02mm
- Measuring force: < 3.5N

Digital Gap Gauges (P2)

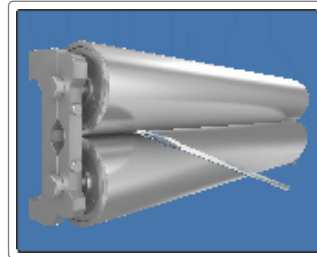
Measuring car body seam



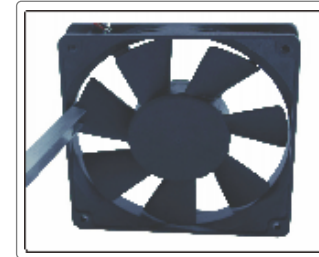
Measuring gaps on the car dashboard



Measuring roll gap



Measuring blade to sidewall gap



Bilateral probe (optional)



Depth positioning probe (optional)



Single-side hockey stick shaped probe (optional)



90° probe (optional)



Single-side positioning probe (optional)



Digital Gap Gauge -- Application



In the steam turbine assembly workshop, measure the gap between the rotor and the cylinder block

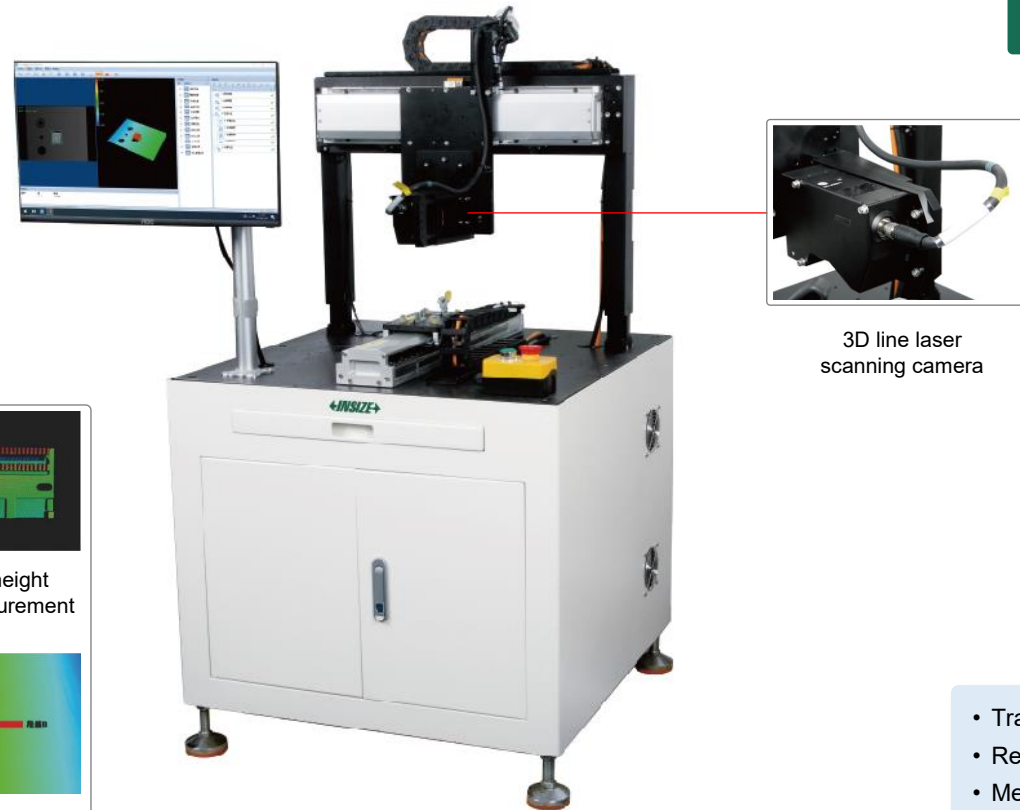
3D Line Laser Profile Measuring Machine VIM-P140

NON-CONTACT
SCANNING

HIGH SPEED
MEASUREMENT

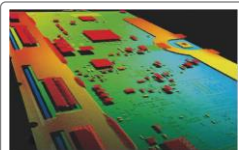
FLATNESS/HEIGHT
DIFFERENCE MEASUREMENT

CUSTOM-
MADE

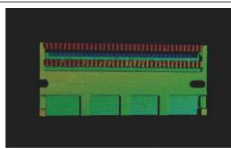


3D line laser
scanning camera

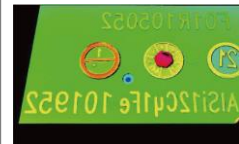
Application



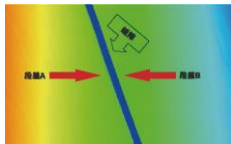
component height
measurement on circuit
boards



flatness and height
difference measurement



character height
measurement



gap depth measurement

- Flatness and height difference measurement of machinery, electronics, cell phones, molds, circuit boards and other products
- Full-range focusable optical system allows you to take pictures in focus range, even when the target height is changed
- Combing 2D and 3D data for complete detection; 2D data can be used for localization, code reading, character recognition, etc.
- The software is automatically corrected for workpiece position deviation; multiple scanned images can be automatically spliced to achieve stable detection

- Travel range XY : 400×350mm
- Repeat positioning accuracy : 2μm
- Measuring range of Z-axis : 24mm
- Width of X-axis : 96mm
- Accuracy of Z-axis : ±0.02mm
- Repeatability of Z-axis : ±0.5μm
- Scanning speed : 2500-10000Hz

Automatic Vision Inspection Machine AVIM

- For testing fasteners, mobile phone parts, plastical products, electronic components and special-shaped hardware, etc.



**AUTOMATIC INSPECTION OF LARGE
QUANTITIES OF WORKPIECES**

**AUTOMATIC
SORTING**

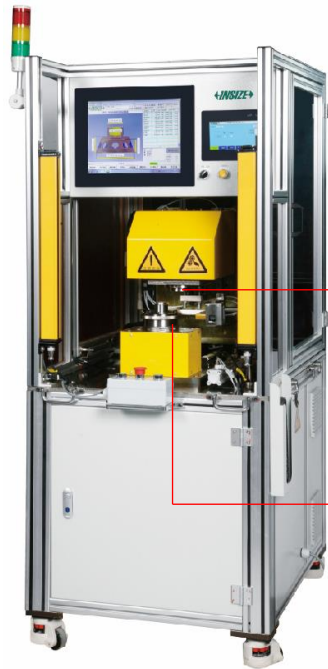
**SIZES MEASUREMENT AND
DETECTION OF SURFACE DEFECTS**

**CUSTOM-
MADE**

Semi-auto Measurement Stations

Semi-auto Measurement Station ATU-01A

CUSTOMIZED ACCORDING
TO WORKPIECES



Measurement device



Workpiece fixing device

- Repeatability : 3 μ m
- Measurement cycle time : 8s

Semi-auto Rotary Measurement Station ATU-01B

CUSTOMIZED ACCORDING
TO WORKPIECES



Measurement device



Workpiece fixture and rotating plate

- Repeatability : 10 μ m
- Measurement cycle time : 46s

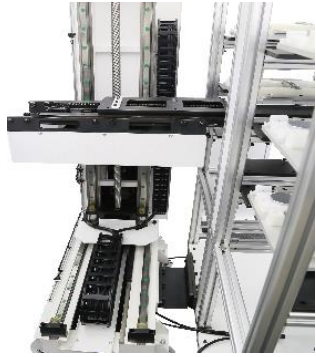
Automatic Inspection System ATU-MHV35 (P1)

- Automatic inspection system: delivers unmanned inspection and automatic data collection, fundamentally cutting labor costs, maximizing equipment utilization, enhancing efficiency, ensuring quality, and ultimately achieving visual management of production progress and quality status

CUSTOM-
MADE



Automatic Inspection System ATU-MHV35 (P2)



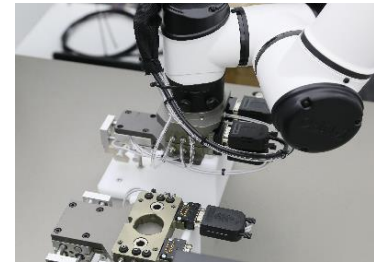
The palletizing elevator automatically takes the workpiece pallets from vertical storage system



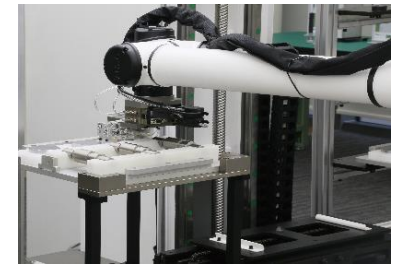
The palletizing elevator automatically conveys the workpiece pallets to the vision positioning station



The vision positioning station automatically verifies the workpiece placement position



The robot automatically changes grippers



The robot automatically grips the workpiece on the vision positioning station



The robot automatically places the workpiece into OK or NG positions on the servo stacking&unloading



The robot automatically places the workpiece on the hardness tester station for automatic measurement



The robot automatically places the workpiece on the CMM station for automatic measurement



The robot automatically places the workpiece on the CNC vision measuring station for automatic measurement

13

Hardness Testers (P1)

←INSIZE→

Rockwell Hardness Testers



Micro-Vickers Hardness Testers



Vickers Hardness Testers



Vickers Hardness Measuring Systems



Automatic Digital Brinell Hardness Tester



Brinell Hardness Testers



Rockwell/Brinell/Vickers Hardness Testers



Brinell Indentation Hardness Measuring Systems



Brackets



Ultrasonic Hardness Testers



Portable Leeb Hardness Testers



Pen-Type Leeb Hardness Tester



**Magnetic Brinell/Rockwell
Hardness Testers**



**Portable Brinell And Rockwell
Hardness Testers**



**Portable Rockwell Hardness
Tester**



**Magnetic Rockwell Hardness
Tester**



Pin Brinell Hardness Testers



**Hydraulic Brinell Hardness
Testers**



**Electric Aluminum Hardness
Testers**



Aluminum Hardness Testers



13

Hardness Testers (P3)

←INSIZE→

Aluminum Hardness Testers



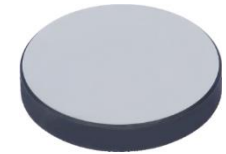
Shore Durometers



Fruit Hardness Testers



Hardness Test Blocks

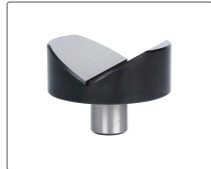


Concrete Strength Testers



Motorized Digital Rockwell/Superficial Rockwell Hardness Testers (Dolphin-Nose Type) HDT-DM Series

V-type anvil
(included)



Ø150mm flat anvil
(included)



4mm high Rockwell
indenter (optional)



14mm high Rockwell
indenter (included)



test interface



FORCE LOADING BY ELECTRIC
MOTOR (WITHOUT WEIGHTS)

TOUCH
SCREEN

Can test rings, tubes, internal
Surfaces of frame parts, etc.



- Full closed-loop precise control, real-time monitoring of test force, greatly increase the accuracy
- Dolphin-nose structure indenter, more measuring space
- Measurements on 30 Rockwell and Superficial Rockwell scales
- Convertible to various hardness standards such as HB, HV, HLD, HK and tensile strength

Motorized Digital Rockwell/Superficial Rockwell Hardness Testers HDT-RT Series

FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

TOUCH SCREEN



Test interface



Test result display interface



Chart interface



Dual Touch Screen Digital Micro-Vickers Hardness Tester (Advanced Type) HDT-DMV90

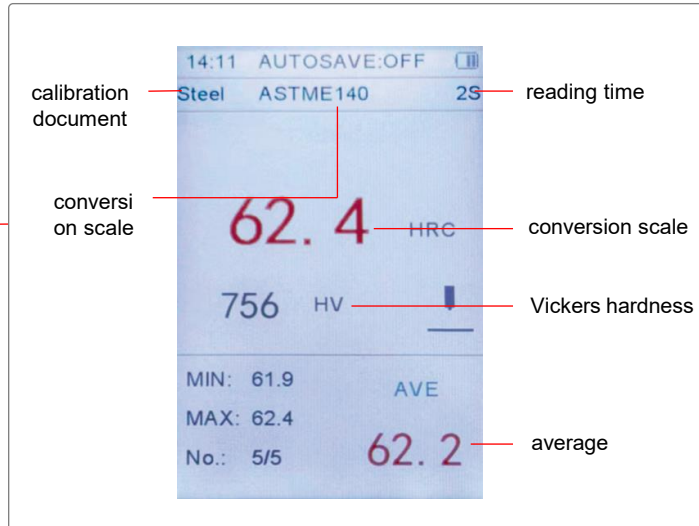
MOTOR DRIVEN
TURRET

AUTOMATIC
TEST



- Dual touch screen control, high-definition image measurement and analysis
- One click start, automatic pressing and automatic measurement
- The host and vickers hardness measurement software can be operated independently
- Automatic switch between the indenter and objective lens
- Data storage and average value calculation
- Can connect with wired and wireless networks to transmit data

Ultrasonic Hardness Testers 9646



ATTENTION: NEED TO CONFIRM IF THE WORKPIECES ARE SUITABLE BEFORE PURCHASE

SMALLTEST INDENTATION

ATTENTION: HARDNESS BLOCKS FOR CALIBRATION ARE OPTIONAL

WIRELESS TRANSMISSION IS OPTIONAL

Applications:

1. Hardness measurement of flange edges and gear root stampings, gears and gear grooves with surface hardening of lamina, taper sections
2. Hardness measurement of shafts and thin-walled pipes and container
3. Hardness measurement of thin plating, wheels, turbine rotors and welded parts
4. Measurement of the depth of a certain diameter deep holes, dents of the larger curvature and convex marks, irregular planes
5. Covering the majority of hardness measurement of industrial production of ferrous metals, non-ferrous metals and their alloys

Code	9646-300	9646-301	9646-310	9646-311
Data printout	without printer	with bluetooth printer	without printer	with bluetooth printer

- Small size, light weight, portable, convenient for on-line measurement and can be used to measure large workpieces
- Support 360° measurement, fast test speed, the fastest results in 1 second
- Standard Vickers indentation, small test indentation and low damage to the workpiece

Portable Leeb Hardness Tester With Wireless Probe HDT-WP201

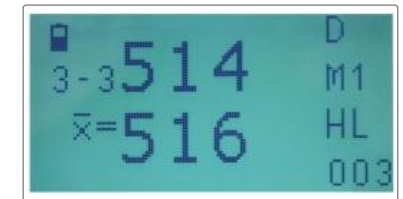


- Wireless digital probe
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σ_b)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data

large font display

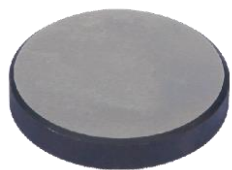


statistics display

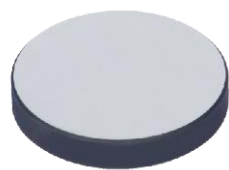


- Resolution : 1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HSD/1 σ_b
- Accuracy : ± 6 HLD (when HLD=800)

Hardness Test Blocks



Rockwell



Vickers



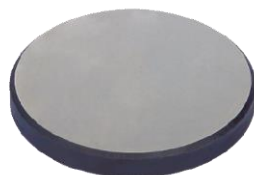
Leeb



Knoop



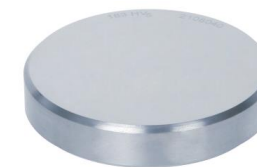
Micro-Vickers



Brinell



Shore



Ultrasonic

Cutting Machines



Mounting Presses



Grinders And Polishers



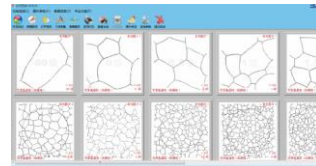
Automatic Liquid Droppers



Metallurgical Microscopes



Metallurgical Analysis Softwares



Cutting Machine Accessories



Mounting Press Accessories



Grinder And Polisher Accessories



Cutting Machines



Automatic Specimen Cutting Machine
(Advanced Type) MLP-ACM160



Automatic Cutting Machine
(Advanced Type) MLP-HCM102



Cutting Machine (Standard Type)
MLP-CM60



Cutting Machine (Basic Type)
MLP-CM86

Manual Precision Cutting Machine MLP-PCM100



- Equipped with a high-torque DC motor and stepless speed control system, boasting strong power and high efficiency
- The rotation speed is digitally displayed for simple operation
- With a magnetic safety switch, the motor automatically stops when the protective cover is opened, ensuring safety performance
- Integrally formed high-strength composite material shell, anti-corrosive and rust-proof
- Panoramic transparent observation window, facilitating the observation of the sample cutting process
- With circulating cooling water tank, lightweight in volume

Cutting coolant (optional)



Cutting blade (optional)



Diamond blade (optional)



- Maximum cutting diameter : Ø40mm
- Maximum travel : 190mm
- Diamond blade : Ø200 × 0.8 × Ø12.7mm
- Cutting method : manual cutting, Y-axis

Mounting Presses



Mounting Presses (Advanced Type) MLP-MP53



Mounting Press (Standard Type) MLP-MP30



Mounting Press (Basic Type) MLP-MP62



Vacuum Mounting Press MLP-MP25

Grinders And Polishers



Automatic Grinder And Polisher
(Advanced Type) MLP-GP406



Automatic Grinder And Polisher
(Advanced Type) MLP-GP505



Automatic Grinder And Polisher
(Standard Type) MLP-GP305



Automatic Grinder And Polisher
(Standard Type) MLP-GP260



Manual Grinders And Polishers
(Standard Type) MLP-GP280



Manual Grinder And Polisher
(Basic Type) MLP-GP314

**Portable Eddy Current
Flaw Detectors**



Ultrasonic Flaw Detectors



**Ultrasonic Phased Array
Detectors**



**Standard Test Blocks For
Ultrasonic Flaw Detection**



**Ultrasonic Water Immersion
Detection Systems**



Air-Coupled Ultrasonic Detector



**Ultrasonic Flaw Detector
For Concretes**



**Portable Magnetic
Powder Flaw Detectors**



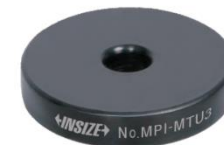
**Permanent Magnet Yoke Flaw
Detector**



**Fluorescent Magnetic
Powder Flaw Detectors**



Magnetic Powder Test Blocks



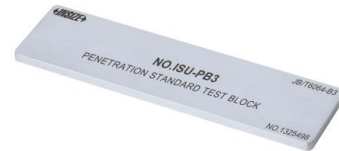
Magnetic Field Indicator Sets



UV Flaw Detection Lights



Penetration Standard Test Blocks



Supplementary Materials



Industrial Automatic X-Ray Film Processor



Industrial Viewing Lamps



Black And White Densitometers



Wire Rope Flaw Detectors



Portable Eddy Current Flaw Detector ECT-S610



- Real-time impedance plane and time base sweep display modes available
- Applicable to all kinds of metal materials and parts, such as weld cracks, copper pipe, seamless steel pipe, stainless steel pipe, folding, scars, pits, cracks, delamination and other defects, with high sensitivity

Right angle probe (included)



Pen probe (included)



- Detection channel : channel 1 (X1-Y1), channel 2 (X2-Y2), mixing channel
- Detection frequency : 2
- Transmission frequency : 50Hz-10MHz
- Sampling frequency : 40MHz, 12-bit data acquisition

Ultrasonic Flow Detectors



Digital Ultrasonic Flow Detector
(Advanced Type) UFD-P710



Digital Ultrasonic Flow Detector
(Excellent Type) UFD-C870



Digital Ultrasonic Flow Detector
(Standard Type) UFD-F720



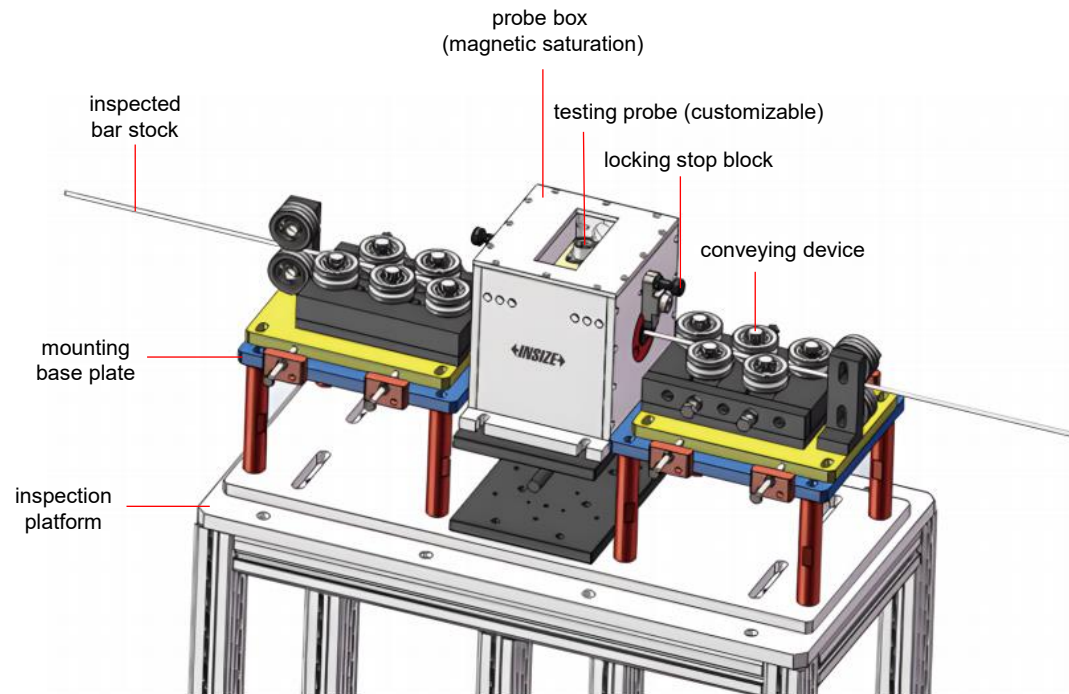
Digital Ultrasonic Flow Detector
(Basic Type) UFD-B450



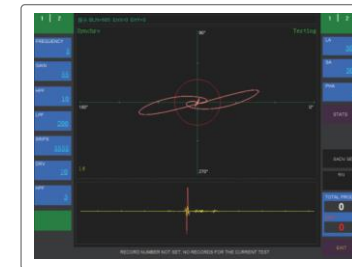
Digital Ultrasonic Flow Detector
(Basic Type) UFD-T680

Online Eddy Current Testing System ECT-WZ

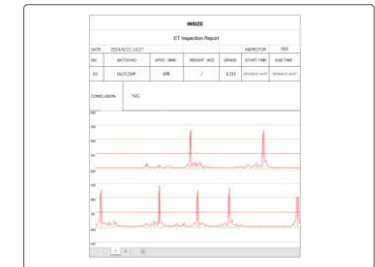
CUSTOMIZABLE



eddy current testing window



ET report display



- Capable of high-speed data processing, with a detection speed up to 1~1200 m/min
- High-performance DSP algorithm and signal processing enable the detection of microcracks with a depth of 0.05mm

- Measuring range : $\varnothing 1\text{mm}-\varnothing 100\text{mm}$ (customizable)
- Detection sensitivity : detection of $0.05 \times 0.01 \times 5\text{mm}$ (D×W×L) crack notch with signal-to-noise ratio $\geq 10\text{dB}$
- Flaw detection speed : $> 0.5\text{m/min}$

Fluorescent Magnetic Powder Flaw Detector MPI-FX1000

**CAN BE CUSTOMIZED ACCORDING
TO CUSTOMER NEEDS**



Intelligent Image UV Flaw Detection Light MPI-SC608



3" touch LCD

Imaging

- UV-B/C content is 0
- Without preheating, instant start, instant on/off, no need to wait
- Continuous irradiation surface spot uniform, no dark areas, no point-like strong light source
- 13M UV-resistant specialized lens for high-definition photos and videos
- Precise measurement of small defects
- High-definition defects can be freely magnified up to 12 times (3 times optical magnification, 4 times electronic magnification)

- UV(Light)Lux : about 4000 μ W/cm²
- Covering area : \varnothing 180mm (at 381mm distance)

16

Testing Machines, Force Gauges, Tension Meters (P1)



**Electronic Universal Testing
Machines**



**Electronic Universal Testing
Machines**



**High And Low Temperature Test
Chambers For Electronic Universal
Testing Machines**



**Hydraulic Universal Testing
Machines**



Extensometers



**Electro-Hydraulic Servo Flexural And
Compressive Testing Machines**



**Servo-hydraulic Fatigue Testing
Machines**



Video Extensometers



Impact Testing Machines



**Charpy Impact Testing
Machines (Standard Type)**



**Izod Impact Testing Machines
(Standard Type)**



**Plastic Pendulum Impact Testing
Machines**



16

Testing Machines, Force Gauges, Tension Meters (P2)

←INSIZE→

Impact Standard Samples



Impact Specimen Notch Projectors



Impact Specimen Notch Broaching Machines



Impact Broaches



**Gauge Marking Instruments
(Marking Point)**



**Gauge Marking Instruments
(Marking Line)**



Steel Bar Bending Testing Machines



Friction And Wear Testing Machines



Friction/Peel Testers



Friction Testers



Electronic Peel Testers



Pneumatic Key Life Testers



16

Testing Machines, Force Gauges, Tension Meters (P3)



Bond Force Testers



**Horizontal Soft Bearing
Balancing Machines**



**Horizontal Mass And Center Of
Mass Testing Machines**



**Tensile And Compression
Testing Machines**



Digital Spring Testers



Manual Spring Testing Machines



**Touch Screen Automatic Spring
Testing Machines**



**Automatic Spring Testing
Machines**



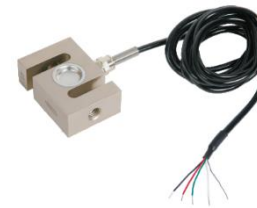
Force Gauges



Test Stands For Force Gauges



Tensile/Compression Sensors



**Electromagnetic Ultrasonic Bolt
Axial Force Tester**



16

Testing Machines, Force Gauges, Tension Meters (P4)

←INSIZE→

Tube Force Gauges



Wire Tension Meters



Infrared Belt Tension Meter



Belt Tension Meters



Spindle Tension Meters



Electronic Universal Testing Machines UTM-Z Series



Computer and software (included)



- Max. test force : 50N-5000N
- Accuracy class : class 0.5
- Accuracy of test force : $\pm 0.5\%$ of indicating value
- Range of test force : 0.4%-100%FS
- Resolution of test force : 1/300000FS
- Accuracy of displacement : $\pm 0.5\%$ of indicating value

- Resolution of displacement : 0.2 μ m
- Range of crossbeam speed : 0.001-1000mm/min
- Accuracy of crossbeam speed : $\pm 0.5\%$ of indicating value
- Range of force control speed : 0.05%-10%FS/s
- Accuracy of force control speed : $\pm 0.5\%$ of indicating value

Electronic Universal Testing Machines

Electronic Universal Testing Machines UTM-E series



- Max. test force : 10kN-600kN
- Accuracy class : class 0.5
- Accuracy of test force : $\pm 0.5\%$ of indicated value
- Range of test force : 0.2%-100%FS
- Resolution of test force : 1/500000FS

High And Low Temperature Test Chambers For
Electronic Universal Testing Machines UTT-M Series

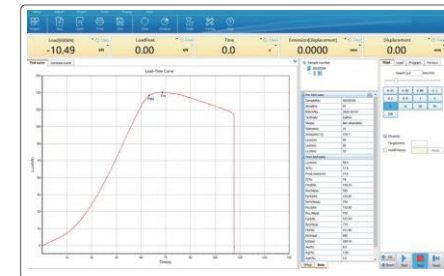


- Temperature range : $-60\sim 300^{\circ}\text{C}$
- Temperature accuracy : $\pm 1^{\circ}\text{C}$
- Temperature fluctuation : $\pm 0.5^{\circ}\text{C}$
- Temperature uniformity : $\leq 2^{\circ}\text{C}$
- Temperature resolution : 0.1°C

Hydraulic Universal Testing Machines UTM-H Series



Computer and software (included)



- Max. test force : 300kN-3000kN
- Accuracy : $\pm 1\%$
- Test force measurement range : 2%-100%FS
- Resolution of test force measurement : 1/300000 of Max. test force
(same resolution all the way)

Electro-hydraulic Servo Flexural And Compressive Testing Machine UTM-RA10300



Cementitious sand flexural fixture (included)



Cementitious sand compression fixture (included)



- Suitable for cementitious sand flexural test, cementitious sand compressive test and concrete flexural test
- With constant stress control and load holding function

Application	flexural	compression
Max. test force	10kN	300kN
Accuracy class	0.5 class	
Accuracy of test force	±0.5% of indicated value	
Range of test force	1%-100%FS	
Resolution of test force	1/300000FS	

Servohydraulic Fatigue Testing Machines

Servohydraulic Fatigue Testing Machines
(Cylinder Down-mounted) FTM-D Series



- Max. test force : 50kN-500kN
- Accuracy of static force measurement : $\pm 0.5\%$ of indicated value
- Accuracy of dynamic force measurement : $\pm 2\%$ of indicated value
- Actuator stroke : $\pm 75\text{mm}$
- Accuracy of displacement measurement : linearity error $<40\mu\text{m}$, repeatability $<0.001\%FS$
- Range of frequency : 0-100Hz

Servohydraulic Fatigue Testing Machines
(Cylinder Up-mounted) FTM-U Series

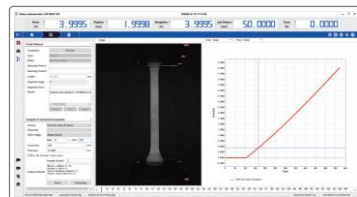


- Max. test force : 10kN-2500kN
- Accuracy of static force measurement : $\pm 0.5\%$ of indicated value
- Accuracy of dynamic force measurement : $\pm 2\%$ of indicated value
- Actuator stroke : $\pm 75\text{mm}$
- Accuracy of displacement measurement : linearity error $<40\mu\text{m}$, repeatability $<0.001\%FS$
- Range of frequency : 0-100Hz

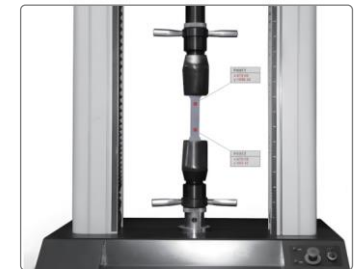
Video Extensometers UTM-M Series

- It is used for testing and analyzing the performance of specimens in tension, compression, bending, creep, fatigue, etc. It includes strain (elongation) measurement, tensile/compressive strength measurement, modulus of elasticity measurement and Poisson's ratio measurement

Software (included)



Application



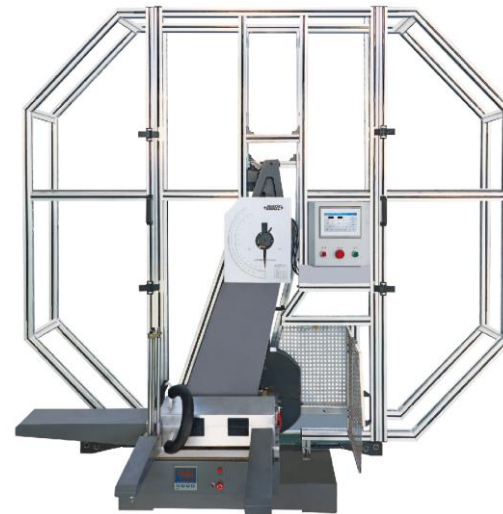
- Resolution : 0.1 μ m
- Range of deformation : standard: 60-240mm
extensions :100-1500mm (\pm 1%)

Impact Testing Machines



Impact Testing Machines ITM-S Series

- According to GB/T 3808, GB/T 229, JJG 145, ASTM E23(with American standard blade), ISO 148.1, ISO 148.2, ISO 148.3, ISO R83



Low Temperature Automatic Impact Testing Machines ITM-T Series

Bending Testing Machines



Steel Bar Bending Testing
Machines STM-D



Vertical Bending Testing
Machine STM-E1



Metallic Material Reverse Bending
Testing Machine STM-F1



Friction And Wear Testing
Machine STM-C1

Friction/Peel Testers STM-A Series

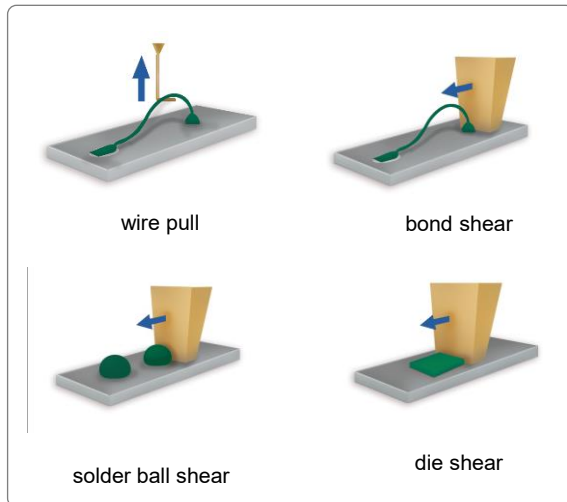


- Suitable for plastic film, foil, paper, cardboard, fabrics, communication cables and cables with metal materials composite belt, conveyor belt, paper and other related materials, dynamic and static coefficient of friction and adhesive composite products, medical patches, paper, protective film and other products, peel strength determination

- Max. test force : 5N-30N
- Accuracy of test force : $\pm 0.5\%$
- Resolution of test force : 0.001N
- Range of test force : 0.5%-100%FS

Bond Force Testers DTM-A Series

Measurement schematic



- Suitable for testing the strength of microelectronic after bonding, and adhesion testing between solder and substrate surfaces, and failure analysis
- Suitable for wire pull, bond shear, ball shear, die shear test

- Max. load capacity : 50KG-200KG
- Axis travel: X : 140-320mm
Y : 140-320mm
Z : 65-100mm
- Speed : 0.1-1000mm/min
- Min. travel distance of Z-axis : 0.25 μ m/0.1 μ m

Electronic Tensile And Compression Testing Machines UTM-SC Series

- Suitable for tensile, peeling and tearing tests of metal wires, metal foils, plastics, food packaging, textile fibres, wires and cables, adhesives, connectors and other industries



Test interface



- Max. test force : 100N-1000N
- Test force measurement range : 0.4%-100%FS
- Test force measurement resolution : 0.01N
- Test force measurement accuracy : $\pm 0.5\%$ of indicating value

Spring Testing Machines



Automatic Spring Testing
Machines SRT-C Series



Automatic Spring Testing
Machines SRT-W



Digital Spring Testers
ISF-S Series

Digital Force Gauges (Standard Type) ISF-DF Series

- Type A and B can be used for tension and pressure tests, type C is only used for pressure tests

DATA
OUTPUT

Type A

- Type A (internal sensor):
- Load capacity: 5N-1000N
 - Resolution: 0.0005N-0.1N
 - Accuracy: $\pm 0.2\%$ FS



Type B

- Type B (external sensor):
- Load capacity: 1000N-20000N
 - Resolution: 0.1N-5N
 - Accuracy: $\pm 0.2\%$ FS



Type C

- Type C (external sensor):
- Load capacity: 10kN-200kN
 - Resolution: 0.001kN-0.05kN
 - Accuracy: $\pm 0.2\%$ FS

Test Stand For Force Gauges



Test Stand For Digital Force Gauges ISF-MT1K



Manual Vertical Test Stands For Force Gauges ISF-V10A/ISF-V10D

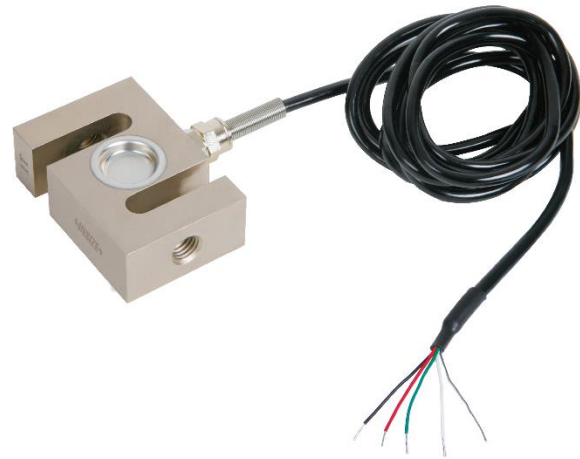


Manual Horizontal Test Stands For Force Gauges ISF-H20A/ISF-H20D



Manual Stripping Force Test Stands ISF-P30A/ISF-P30D

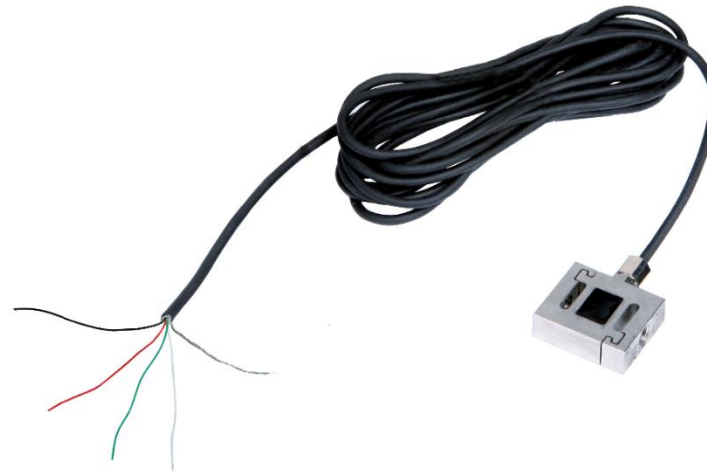
S-Type Tensile/Compression Sensors



8650



Connected with handheld indicator (optional)



8651



Connected with handheld indicator (optional)

Wire Tension Meters

• For tension measurement of fine materials: textiles, chemical fibers, fine wires



Wire Tension Meters
ISF-DU

Code	ISF-DU50	ISF-DU100	ISF-DU200
Accuracy class	±3%FS		
Range of test force	0.3~50cN	1~100cN	1~200cN
Test force resolution	0.1cN		

• For tension measurement of high-speed threads: textiles, chemical fibers, fine wires



High-speed Wire Tension Meters
ISF-DV

Code	ISF-DV100	ISF-DV200	ISF-DV500
Accuracy class	±3%FS		
Range of test force	1~100cN	1~200cN	1~500cN
Test force resolution	0.1cN		

Torque Testers, Torque Wrenches (P1)

Torsion Testing Machines



Workpiece Torsion Fatigue Testing Machines



Torque Testers



Torque Testers



Torque Wrench Test Stands



Dynamic Torque Sensors



Torque Sensors



Handheld Force/Torque Indicators



Torque Screwdrivers



Desktop Automatic Tightening Machines



Electric Screwdrivers



Digital Torque Wrenches



Torque Testers, Torque Wrenches (P2)

Torque Wrenches



Slip Type Preset Torque Wrenches



Dial Torque Wrenches



Torque Adapters



Torque Multipliers



Electronic Torsion Testing Machines UTM-TT

- Suitable for torsion testing of metallic and non-metallic materials, composite materials and components

**OPTIONAL ACCURACY
CLASS: CLASS 0.5**



Code	Type A	Type B
Max. test torque	2N.m-50N.m	200N.m-5000N.m
Accuracy of test torque	±1% of indicated value	
Range of test torque	2%-100%FS	
Min. resolution of test torque	0.0001N.m-0.001N.m	0.01N.m-0.1N.m
Accuracy of torsion angle	±1% of indicated value	
Range of torsion angle	0-9999°	
Resolution of torsion angle	0.01°	
Accuracy of torsion angle speed	±1% of the set value	
Accuracy of constant load torque	±1% of the set value	

Workpiece Torsion Fatigue Testing Machine ITU-A102

CUSTOMIZED ACCORDING
TO WORKPIECES



built-in dynamic torque sensor
IST-TA10



workpiece fixture

Main unit

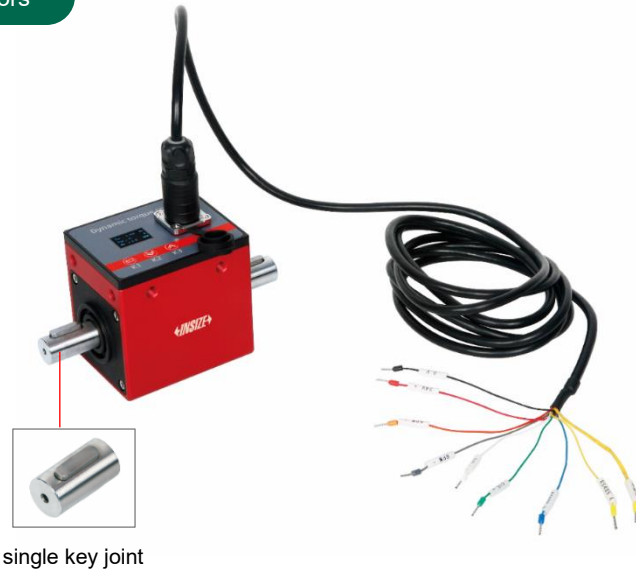
- Servo control mode : torque, angle and speed
- Range of test torque : 20%-100%FS
- Range of torsion angle : 0-9999°
- Max. Test RPM : 100rpm

Dynamic torque sensor

- Torque capacity : 10N.M
- Accuracy : 0.1%fs
- Hysteresis : 0.5%f.S.

Torque Sensors IST Series

Dynamic Torque Sensors



single key joint

- Overall accuracy : $\pm 0.2\%$ FS
- Repeatability : 0.1% FS
- Response frequency : 2kHz
- Maximum range : 1N.m-20000N.m

Static Torque Sensors



- Output sensitivity : 1.0-2.0mV/V
- Zero output : $\pm 1\%$ FS
- Accuracy : $\pm 0.2\%$ FS
- Repeatability : $\pm 0.2\%$ FS
- Maximum range : 10N.m-5000N.m

Handheld Force/Torque Indicators ISF-DG Series

- For use with force sensors and torque sensors
- Three modes of real-time value display, peak value display and valley value display
- High sampling rate captures peak value accurately
- Parameter backup and restoration, even if the parameters are messed up, you can restore them with a single click
- Weightless calibration, just enter the sensor parameters and you are ready for calibration
- A variety of alarm options: upper limit alarm, lower limit alarm, peak and valley alarm, over 1.2 times of the range alarm



example of torque
sensor connection



example of force
sensor connection

- Max. sampling frequency : 3200Hz-12800Hz
- Accuracy : $\pm 0.1\%$ (of load capacity)

Torque Screwdrivers



Digital Torque Screwdrivers
IST-SD Series

- Range : 10-400cN.m
- Resolution : 0.1cN.m
- Accuracy : $\pm 2.5\% / \pm 3\%$ (clockwise)
 $\pm 3.5\% / \pm 4\%$ (counter-clockwise)



Bluetooth Digital Torque Screwdrivers
(Keyboard Signal) IST-3SD Series

- Range : 10-600cN.m
- Resolution : 0.1cN.m
- Accuracy : $\pm 2\%$ (clockwise)
 $\pm 3\%$ (counter-clockwise)



Torque Screwdrivers
IST-MG Series

- Range (clockwise) : 20cN.m–6.0N.m
- Graduation : 2cN.m/5cN.m/0.1N.m
- Accuracy : $\pm 6\%$

Build-in Wireless Digital Torque Screwdrivers IST-4SD Series

- Clockwise and counter-clockwise operation
- Peak and track working mode
- Upper and lower tolerance limits can be set and measurement results automatically calculate % difference from target value
- 10 preset target torque values and usage modes, parameters can be locked to prevent change

BUILD-IN
WIRELESS

DATA
OUTPUT



Application

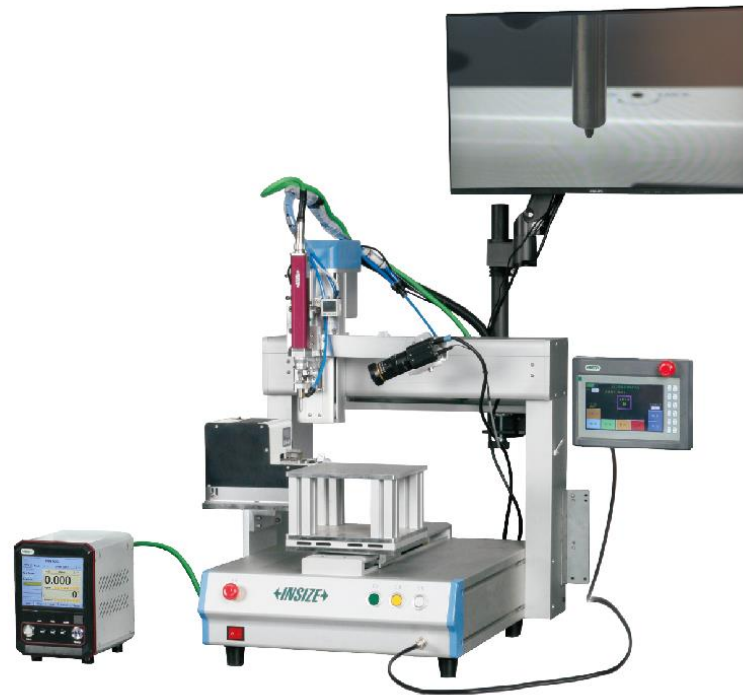


Code	IST-4SD50	IST-4SD200	IST-4SD400	IST-4SD600
Range	10~50cN.m	40~200cN.m	80~400cN.m	120~600cN.m
Accuracy	Clockwise : $\pm 2\%$ counter-clockwise : $\pm 3\%$			
Resolution	0.1cN.m			

Desktop Automatic Tightening Machine ATM

CUSTOMIZED ACCORDING
TO WORKPIECES

Screw feeding system



- Positioning repeatability : $\pm 0.05\text{mm}$
- Number of preset positioning programs : 80
- Number of positioning points for one program : 350
- Applicable torque range : $0.01\text{-}7.50\text{n.M}$
- Applicable screw outside diameter : $1.0\text{-}7.0\text{mm}$
- Torque accuracy : $\pm 5\%$ at $30\%\sim 80\%$ of maximum output torque, $\pm 8\%$ in other range

Intelligent Electric Screwdrivers (Current Control) HES-E



- Torque range : 0.01-5.50N.m
- Max. speed : 800-5000rpm
- Torque accuracy : $\pm 5\%$ at 30%~80% of maximum output torque, $\pm 8\%$ in other range

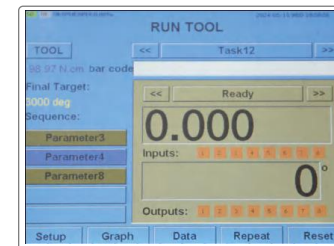


Controller type A



Controller type B

Controller (included)



Interface of tightening parameter setting



Balance arm (optional)



Quality Inspection Torque Wrenches IST-4W Series



OPTIONAL ACCURACY: CLOCKWISE: $\pm 1\%$
COUNTER-CLOCKWISE: $\pm 2\%$ ONLY FOR RANGE 6~340N.m

MEASURE THE TORQUE
OF TIGHTENED BOLTS

- Three measuring modes:
 - Angle mode: rotation angle can be set, when turning to the angle, 2 LED lights blinking and buzzer beeping, capturing torque values
 - Maximum value display mode: capturing peak torque values
 - Real-time value display mode: real-time tracking of torque values
- In angle mode and maximum value mode, upper and lower tolerance limits can be set to determine pass or fail by LED lights
- Clockwise and count-clockwise operation

Type A

- Range : 6-340N.m
- Resolution : 0.01N.m/0.1N.m
- Accuracy : clockwise : $\pm 2\%$
counter-clock wise: $\pm 3\%$

Type B

- Range : 170-2000N.m
- Resolution : 0.1N.m/1N.m
- Accuracy : clockwise : $\pm 2.5\%$
counter-clock wise : $\pm 3.5\%$

Built-in Wireless Digital Torque Wrenches (Keyboard Signal) IST-42W Series

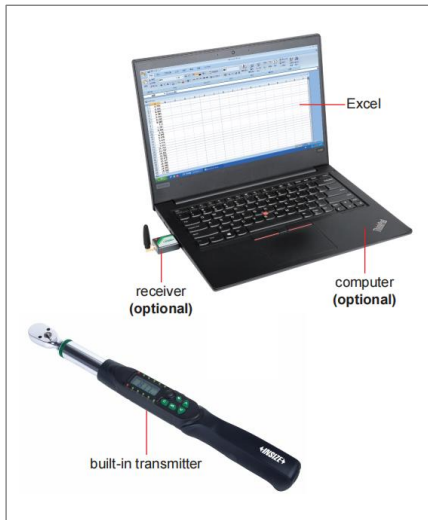
DATA
OUTPUT

clockwise/counter-clockwise setting



Type B

Application



Type	Type A	Type B	Type C
Range	1.2N.m-20N.m	6N.m-500N.m	170N.m-2000N.m
Resolution	0.001N.m-0.1N.m		0.1N.m-1N.m
Accuracy	Clockwise : $\pm 2\% \sim \pm 2.5\%$, counter-clockwise : $\pm 3\% \sim \pm 3.5\%$		

Interchangeable Head Two-way Wireless All-mode Digital Torque Wrenches IST-45W Series

ALL
MODE

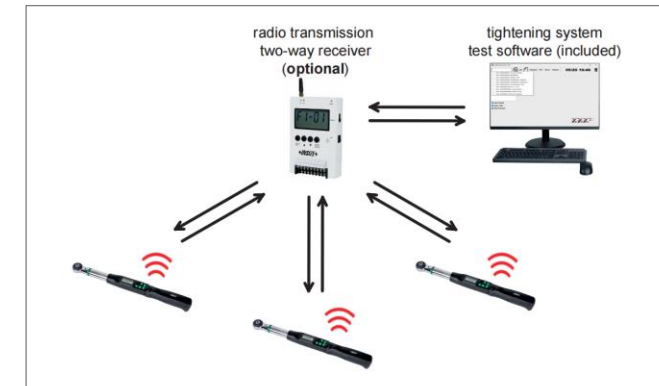
ANGLE
CURVE

DATA
OUTPUT



- Unit: N.m, in.lb, ft.lb, kg.cm, °
- Clockwise and counter-clockwise operation
- Includes all operating modes of the digital torque wrench
- Upper and lower tolerance limits can be set to determine pass or fail by LED lights, can set whether to send beyond tolerance limits
- 10 preset target values and usage modes, parameters can be locked to prevent change

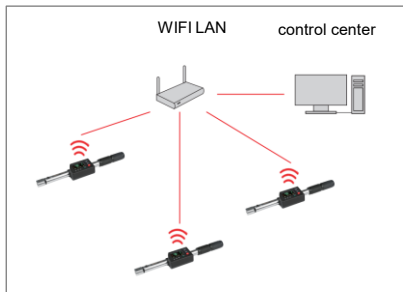
Data transmission application



- Range : 2.4-410N.m
- Resolution : 0.01N.m/0.1N.m
- Accuracy : CW: $\pm 2\%$
CCW: $\pm 3\%$, $\pm 2^\circ$ (rotate 90°)

Interchangeable Head Digital “Click” Torque Wrenches (Wifi Lan) IST-WPE Series

Application

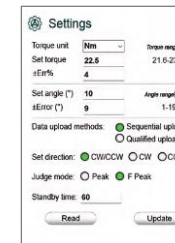


Type-C port

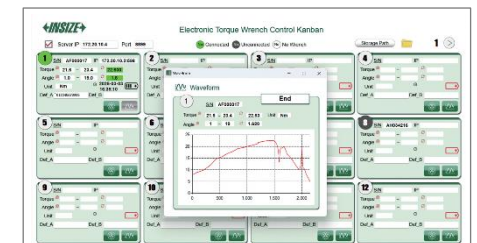
scanning windows

DATA OUTPUT

Parameter setting software (included)



Work display software (included)



- Clockwise and counter-clockwise operation
- Mechanical structure adjusts torque value, digital sensor displays real torque value, wrench can be used without torque tester
- Set the angle range to strictly monitor angle of the screw from fitting surface to tightening
- Interval display of curved interface and main interface after unloading, upper and lower tolerance limits can be set to determine pass or fail by LED lights
- Provide torque graph for analyzing and adjusting the tightening strategy
- Scanning module and scanning windows to match corresponding screws
- Open communication protocols for users to develop and interface with factory MES, PLC and other systems

- Range : 2-400N.m
- Resolution : 0.001N.m-0.1N.m
- Accuracy : Torque : $\pm 3\%$
Angle : $\pm 1\%$ of indicated value + $\pm 1^\circ$ (speed 10~180/s) + $\pm 1^\circ$ (clamping error)

Color Screen Multifunctional Digital Torque Wrenches IST-40W

clockwise/counter-clockwise setting

alarm LED

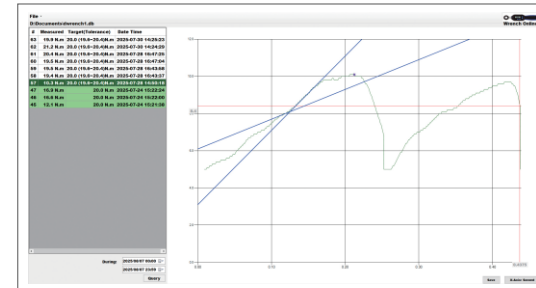


square driver



software (included)

DATA OUTPUT



pointer mode



numerical mode



curve mode

- Clockwise and counter-clockwise operation
- Maximum value and real-time value displayed simultaneously
- Three display modes for torque values: pointer, numerical, and curve
- Upper and lower tolerance limits can be set to determine pass or fail by LED lights
- The data is stored in the wrench when the wrench is disconnected, and the data is automatically uploaded to computer after transmission cable is connected to the software
- Real-time uploading of data when transmission cable is connected to the software

- Range : 6-340N.m
- Resolution : 0.01N.m/0.1N.m
- Accuracy : clockwise: $\pm 2\%$
counter-clock wise: $\pm 3\%$

Torque Wrenches



Digital Torque Wrenches
IST-W Series



Mechanical Torque Wrenches
(Digital Setting) IST-19WM Series



Torque Wrenches
IST-9WM Series



Preset Torque Wrenches
IST-PW Series



Dial Torque Wrenches
IST-DW Series

Digital torque wrench transmission mode

Wired transmission (keyboard signal)

- Keyboard signal through a cable, can be transmitted to Excel, Word, Txt, etc.
- Press the output button once to output a value

Bluetooth transmission (keyboard signal)

- 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 10 meters (no obstacles, no electromagnetic interference)
- Bluetooth connection and disconnection are respectively shown by indicator lights

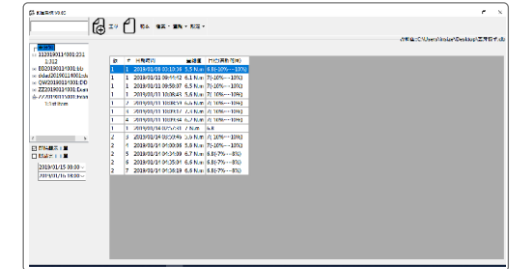
Two-way radio transmission

- A two-way receiver can be connected with up to 10 wrenches at the same time, and the maximum transmission distance is 100 meters
- Two data transmission modes: automatic or press button to send
- When the wrench is disconnected, data is stored in the wrench and automatically sent to computer after wireless connection

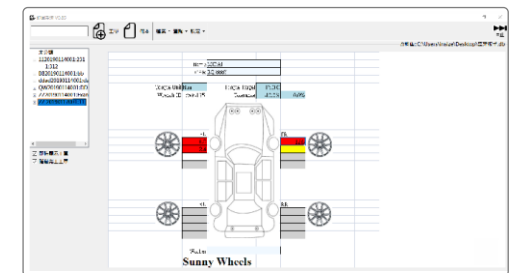
Two-way bluetooth transmission

- Data transmission via bluetooth (bluetooth 4.0)
- Two-way transmission and control
- Transmission distance: 10m (no obstacles, no electromagnetic interference)
- Bluetooth connection and disconnection are displayed by indicator light
- Two data transmission modes: automatic or press button to send
- When the wrench is disconnected, data is stored in the wrench and automatically sent to computer after connection via Bluetooth

Data transmission mode



Program guidance mode



Digital Torque Wrenches



Small Range Digital Torque Wrenches IST-WP Series



Short Handle Digital Torque Wrenches IST-WS Series



Interchangeable Head Quality Inspection Torque Wrenches IST-16W Series



Digital Angle Torque Wrenches IST-1W Series



Digital Torque Wrenches IST-W Series



Swing-head Digital Torque Wrenches IST-21W Series



Adjustable Open Head Digital Torque Wrenches IST-24W Series

Automatic Torque Wrench Calibrator IST-HT1000

- Unit: N.m, cN.m, in.lb, ft.lb, kg.cm
- Automatically load clockwise or counterclockwise
- The test curve can be displayed in real time
- Four test modes: preset mode, preset mode (manual), indication mode (standard), indication mode (device under test)
- Single-point and multi-point automated testing and fatigue testing of torque wrenches

AUTO
LOAD



selection of test modes on
the calibrator



calibrator test
process interface

computer and software
(included)



- Automatic load torque range : 1~1000N.m
- Sampling frequency : $\geq 1500\text{Hz}$
- Arm length range : 135~1185mm
- Limit stop angle : $\pm 20^\circ$
- Adaptor : 3/4" to 1/2", 3/4" to 3/8", 3/4" to 1/4"

Handheld XRF Spectrometers



Handheld LIBS Spectrometers



XRF Spectrometers



XRF Precious Metals Analyzer



Standard Sheets For XRF Plating Thickness Instruments



Spark Direct Reading Spectrometers



Standard Samples For Spectral Analysis



Spectral Sample Grinders



Handheld Raman Spectrometers



Fourier Transform Infrared Spectrometers



Carbon And Sulfur Analyzers



Oxygen/Nitrogen/Hydrogen Analyzers



18

Component Analysis (P2)

←INSIZE→

Atomic Absorption Spectrometers



Kjeldahl Nitrogen Analyzer



Gas Chromatographies



Liquid Chromatographies

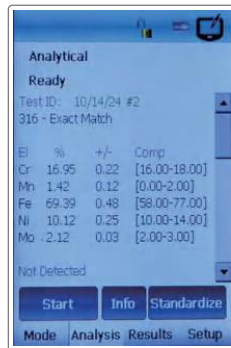


Ion Chromatographies

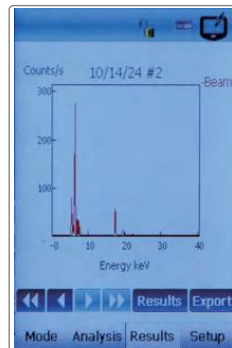


Handheld XRF Alloy Analyzer (Basic Type) HSM-A310

Test interface



Spectral analysis



Elemental analysis range

K, Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Zr, Nb, Mo, Ru, Rh, Pd, Ag, Cd, Sn, Sb, Ba, Ta, Hf, W, Re, Ir, Pt, Au, Hg, Pb, Bi

Alloy analysis mode

1. iron-based alloys (stainless steels, chromium/molybdenum alloys, low alloy steels, tool steels, seamless steels), nickel-based alloys, cobalt-based alloys, titanium-based alloys, copper-based alloys, molybdenum/tungsten-based alloys, aluminium-based alloys
2. comes with 288 commonly used alloy grades
3. can create your own grade database

- Fast and non-destructive test to identify alloy grade and composition
- For iron-based alloys (stainless steels, chromium/molybdenum alloys, low alloy steels, tool steels, seamless steels), nickel-based alloys, cobalt-based alloys, titanium-based alloys, copper-based alloys, high-temperature alloys (molybdenum/tungsten alloys), aluminium-based alloys

Handheld XRF Alloy Analyzers (Advanced Type) HSM-S Series



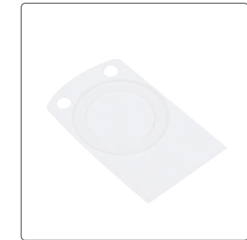
CAN BE CUSTOMIZED

DATA OUTPUT

316 reference sample (included)



window protective film (included)



- Widely used in alloy identification, metal scrap recycling, and quality assurance/control processes within the metal manufacturing industry
- High accuracy, fast measurement speed, and intuitive display of alloy grades, element percentages (with up to 0.001% resolution), and ppm-level concentrations

Code	HSM-S110	HSM-S130	HSM-S620	HSM-S640
Analysis mode*	alloy analysis	alloy analysis plating analysis	alloy analysis	alloy analysis plating analysis
Detector	Si-PIN		SDD	
Elemental analysis range	Ti-U		Mg-U	
Target material	Ag target		Rh target	

*can be customized according to user requirements: RoHS analysis mode, ore analysis mode

Handheld Libs Spectrometer HLS-B410

- Widely used in metallurgy, casting, steel, non-ferrous metals and scrap metal recycling, etc.
- Ability to quickly analyze the metal elements of materials for quantitative characterization and grade differentiation

**EYE SAFE
LASER**

**LASER CLASS
CLASS I**

**NO
RADIATION**

**IP54
WATERPROOF**



Test interface

Element	Content(%)	Content Range
Al	92.83	91.25 - 93.97
Cu	4.18	3.60 - 4.20
Mg	1.83	1.70 - 2.30
Mn	0.61	0.50 - 1.00
Si	0.16	- 0.50
Fe	0.15	- 0.50
Ni	0.11	-
Zn	0.06	- 0.10
Cr	0.03	-

Application

alloy analysis

can be used for almost all alloys, including scrap metal, high temperature alloys, alloy steel, stainless steel, tool steel, chromium molybdenum steel, aluminum alloys, nickel alloys, titanium alloys, cobalt alloys, copper alloys, precious metals, zinc alloys, anomalous alloys, zirconium alloys, mixed alloys, etc.

material properties identification (PMI)

can be used for quality control in the metal fabrication and processing industry to analyze material composition and identify alloy grades for a wide range of materials including critical components, raw materials, and welded seams

XRF Plating Thickness Instrument

MANUAL
ZOOM



XRF Plating Thickness Instrument
XRF-PT230

AUTOMATIC MOBILE
PLATFORM



Automatic XRF Plating Thickness Instrument
XRF-FA350

VACUUM SYSTEM
MANUAL ZOOM



Vacuum XRF Plating Thickness
Instrument/Rohs Analyzer XRF-VF300



XRF Plating Thickness Instrument/RoHS
Analyzer/Alloy Analyzer XRF-B210

Spark Direct Reading Spectrometers

Spark Direct Reading Spectrometer (Basic Type) OES-T350



- Rowland circle of diameter : 350mm
- Wavelength range : 160-510nm
- Pixel resolution : 20pm
- Spark frequency : 100-1000hz

Portable Spark Direct Reading Spectrometer OES-P200



- Detector : high performance CMOS
- Optical system construction : paschen-runge double optical chamber structure
- Raster scribing : 3600 lines/mm
- Ultraviolet focal length : 298mm

Handheld Raman Spectrometers

Handheld Raman Spectrometer (Basic Type) HHL-R240



- Excitation wavelength : $785 \pm 0.5 \text{ nm}$
- Wavenumber range : $200\text{-}4000 \text{ cm}^{-1}$
- Resolution : 10 cm^{-1}

- Equipped with raman spectral recognition algorithms, including standard spectra of up to 10,000 kinds of substances

Handheld Raman Spectrometer (Advanced Type) HHL-S360



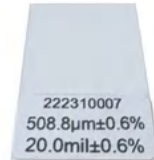
- Wavelength : 1064 nm
- Wavenumber range : $200\text{-}2500 \text{ cm}^{-1}$
- Resolution : 14 cm^{-1}

- Widely used in industry, medicine, environmental protection, food, public security, defense, etc.
- For the qualitative identification of inorganic and organic substances in various forms

Coating Thickness Gauges



Calibration Foils For Coating Thickness Gauges



XRF Plating Thickness Instruments



Surface Profile Gauges



Wet Film Gauges



Gloss Meters



Spectrophotometers



Color Assessment Cabinets



Holiday Detectors



Digital Adhesion Testers



Automatic Pencil Hardness Tester



Pencil Hardness Testers



Rotational Abrasion Testers



Cross Cut Adhesion Testers



Conical Mandrel Test Apparatus



Paint Film Flexibility Testers



Impact Testers



ISO Flow Cups



Rotational Viscometers



Coating Thickness Gauges



Coating Thickness Gauge
(Standard Type) 9501-1200



Coating Thickness Gauge
(Advanced Type) 5402-TC21



Coating Thickness Gauge
(Basic Type) ISO-1000FN



Coating Thickness Gauge
(Basic Type) ISO-1200FN



Double Screen Coating
Thickness Gauge 5404-QM42

Coating Thickness Gauges (Advanced Type)



Coating Thickness Gauges (Advanced Type) 5411



Coating Thickness Gauge (Advanced Type) 5413-TC31

5413-TC31-FN15 probe (included)

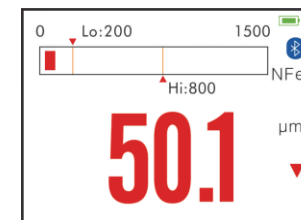
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
Substrate: iron, steel, magnetic stainless steel
Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Can measure the thickness of non-conductive coating on non-magnetic metal substrate
Substrate: copper, aluminum, zinc, non-magnetic stainless steel
Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)



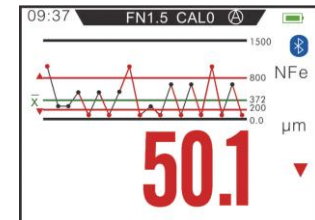
reading only



reading and statistics



reading and bar graph



reading and run chart

Code	5413-TC31	5411-TC15	5411-TC30	5411-TF50
Measuring range	0~1500μm*	FE/NFE (auto recognition): 0~1500μm	FE/NFE (auto recognition): 0~3000μm	FE: 0~5000μm
Accuracy	$\pm(2\%L+1\mu\text{m}): \leq 1500\mu\text{m}$ $\pm(3\%L+1.5\mu\text{m}): >1500\mu\text{m}$, L is measuring thickness in μm			

* Interchangeable probes provide multiple ranges

Coating/Film Thickness Measurement Systems

MTF-Y430

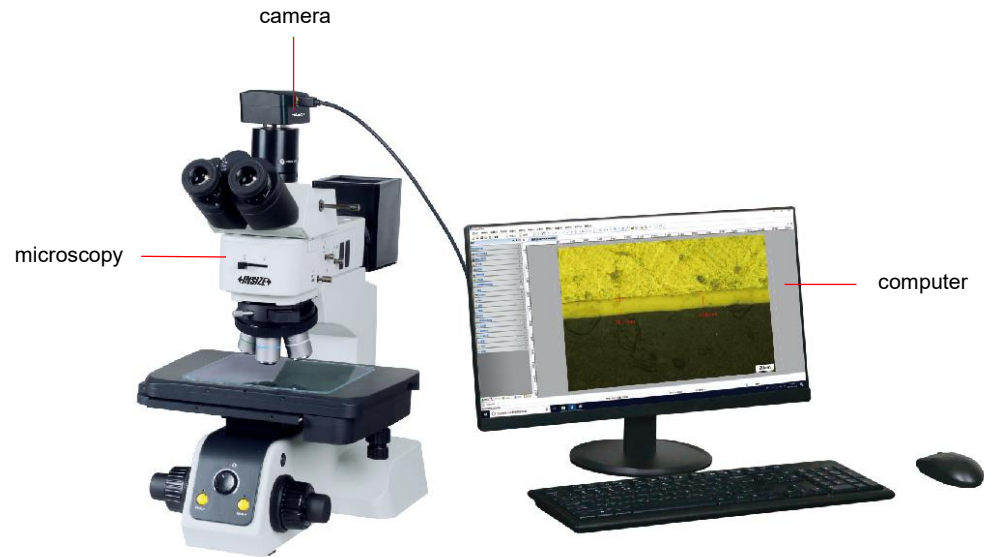


Image measurement software (included)

selectable resolution

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)

measurement items

- Suitable for measuring the thickness of various coatings or multi-layer composite films, with a wide measurement range
- Capable of analyzing the quality of coatings and identifying the causes of defects (such as pores, cracks, inclusions, peeling, etc.)

Gloss Meters



Gloss Meters
5702-DG8



60° Gloss Meter
ISQ-DG6



Microporous Gloss Meter
(Advanced Type) 5711-SG60



20°/60°/85° Gloss Meter
ISQ-DG8

Colorimeters



Colorimeter
5700-LS35



Handheld Spectrophotometer
5701-D40



Portable Spectrophotometer
9710-30



Multi-angle Spectrophotometer
5705-MS45



Spectrophotometer
5706-DS01

Digital Adhesion Tester SPT-AD21



Ø20mm dolly (included)



Cutting tool (included)



Glue gun and glue (included)



- Resolution : 0.01MPa (1psi)
- Accuracy : ±1% full scale
- Pull-off force : 0.7-20MPa

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Other Instruments



Parts Cleanliness Testing Cabinets



Automatic Cleanliness Analysis Systems



Bearing Radial Clearance Tester



Oil Testing



Parts Cleanliness Testing Systems



Parts Cleanliness Testing Cabinet
OPP-GZ01



Automatic Cleanliness Analysis
System (Advanced Type) OPP-OM53



Automatic Cleanliness Analysis
System (standard Type) OPP-OS18

Oil Testing



Online Oil Particle Counter
PSC-ZX100



Portable Oil Particle Counter
(Basic Type) PSC-BX200



Portable Oil Particle Counter
(Standard Type) PSC-BX300



Oil Particle Counter (Standard Type)
PSC-TX100

THANKS!

Quality | Innovation | Service | Value