

iThick-220 Ultrasonic Thickness Gauge



Video



Contact us

Mikrosize Precision Instrument Co.,Ltd

A-4035 RuiFeng Business Expo, Wuhu City, China , 241000.

Web: www.mikrosize.com

Email: mikrosize@mikrosize.com



Product Features and Application

Product Features

- Suitable for measuring the thickness of metals (such as steel, cast iron, aluminum, copper, etc.), plastics, ceramics, glass, glass fiber and any other good conductors of ultrasonic waves
- It can be equipped with a variety of dual crystal probes with different frequencies and different crystal sizes
- The known thickness can be used to measure the sound velocity to improve measurement accuracy
- Features a coupling status indication function.
- Equipped with EL backlight display for convenient use in low-light environments.
- Portability and ease of operation
- It has a remaining power indicator function, which can display the remaining battery power in real time, and has power saving functions such as automatic sleep and automatic shutdown;
- Compact, portable, and highly reliable, suitable for harsh operating environments with resistance to vibration, impact, and electromagnetic interference.
- With USB communication interface, it can be connected to external data processing software
- Features an Audible and Visual Alarm system that provides an alert when measurements exceed the set upper or lower limits.
- The power supply uses 4 pcs AAA (size 7) 1.5V batteries, which can be operated continuously for 250 hours without backlighting
- On the basis of the standard model, it adds communication functionality, enabling data exchange with a PC. It supports real-time communication via the computer and can be used as a small, single-channel online instrument (requires a dedicated probe compatible with online products).

Product Application

- It can measure the thickness of metals and other materials, and can measure the sound velocity of materials
- It can monitor various pipes and pressure vessels in production equipment, and monitor their thinning degree after corrosion during use
- It can accurately measure various plates and various processed parts
- It can be widely used in various fields such as petroleum, chemical industry, metallurgy, shipbuilding, aviation, aerospace, etc.



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Instrument Structure



1. Probe connector
4. Instrument buttons

2. Ultrasonic probe
5. Calibration Block

3. Display screen

Instrument Interface



- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 1. Menu key | 2. Number Increase key/Up key/Common Sound Velocity Switch key |
| 3. Cancel key/ Sound Velocity Measurement & Thickness Measurement Mode Switch key | |
| 4. Right Digit Selection key | 5. Instrument Power key |
| 6. Number Decrease key/Down key/Data Save key | 7. Confirm key |
| 8. Calibration key | 9. Left Digit Selection key |

Interface Display



- 1.Material and sound velocity value
2. Thickness value
3. Folder
4. Probe frequency
5. Thickness unit
6. Battery level

LcdLight M



Backlight intensity; Medium (The backlight intensity can be adjusted to weak, medium, or strong via the left and right digit selection keys)



Press the "Sound Velocity Measurement & Thickness Measurement Mode Switch key" to enter this interface. You can improve accuracy by setting the thickness of the measured object to perform a reverse measurement of sound velocity.

Setting Interface

AlarmUse OFF

AlarmUse OFF: Enabling this function allows you to set the upper and lower alarm limits. When the measured value exceeds the set parameters, the machine will sound a buzzer alarm.

Up Alarm: Upper Alarm Limit

Low Alarm: Lower Alarm Limit

Auto OFF 3 min

Auto OFF 3 min: The time can be adjusted within the range of 0~9 through the left and right digit selection keys. The automatic shutdown can be set to 0 minutes to deactivate.

Press the confirm button to view saved test data.



Setting Interface

Unit mm

Unit mm: Use the left and right digit selection keys to switch between metric and imperial units.



Langue EN

Langue EN: Language EN (Language English) Use the left and right digit selection keys to switch between Chinese and English or other customized languages.



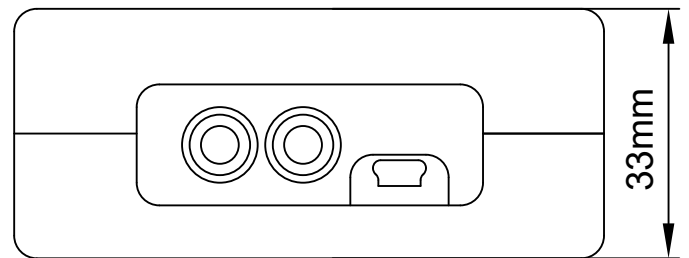
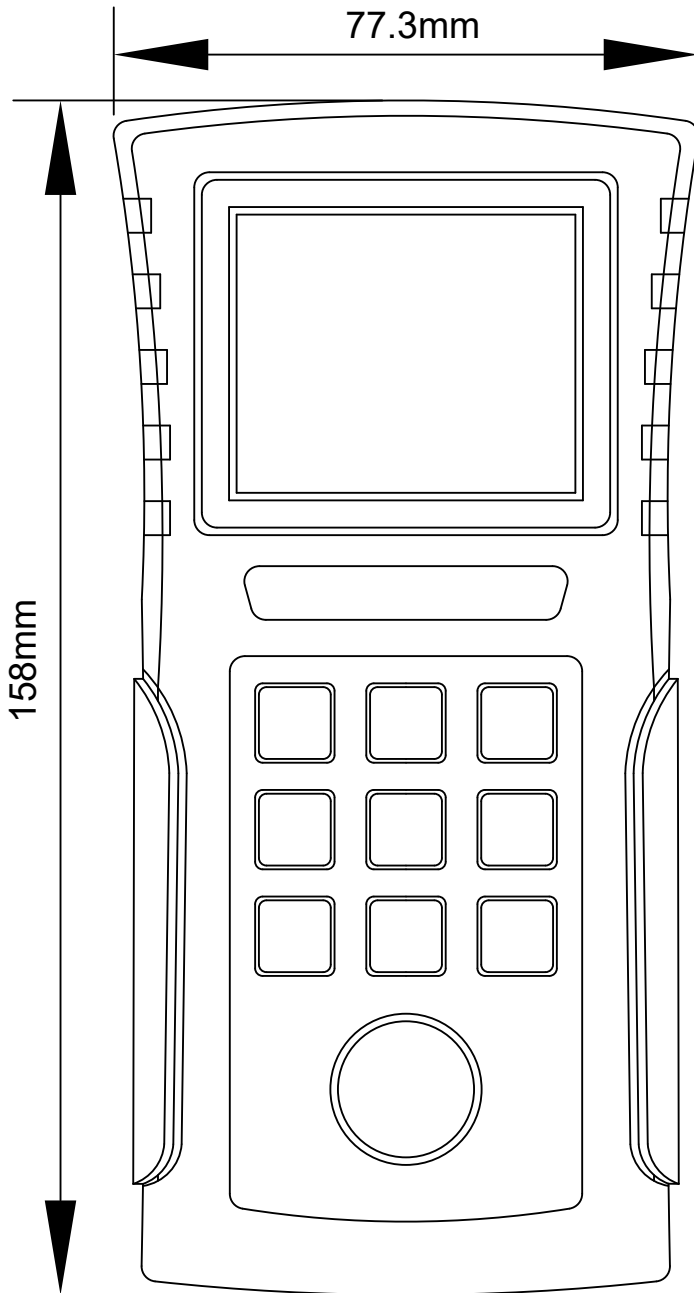
PRO SIZE 5Mhz

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The standard configuration is a 5Mhz standard probe. Users can use the left and right digit selection keys to switch between 2Mhz, 5Mhz, 7Mhz, and 10Mhz according to the different probes used







Instrument Dimension



Technical Parameters

Measuring Range	0.75~600mm(Determined by the probe)
Resolution	0.01mm
Measuring Unit	Optional mm/inch
Languages	English/Chinese
Measuring Precision	When the measuring range is 0.75~99.99, the resolution is 0.01, and the allowable error is $\pm 3\%H + 0.04$.
	When the measuring range is 100.0~600.0, the resolution is 0.1, and the allowable error is $\pm 5\%H + 0.04$.
	Note: H is the measured thickness
Sound Speed Adjustment	1000~9999 m/s
Calibration Function	Features probe zero point and two-point calibration functions
Data Storage	Capable of storing 3000 sets of thickness measurement data (measurement values and sound velocity values only) and 3000 sets of parameter datasets (including measurement values, instrument settings, and other parameters)
Communication Interface	USB
Audible And Visual Alarm	Upper and lower limit prompts (can be set according to the thickness of the workpiece being measured)
Minimum Thickness Capture Capability	Capable of capturing minimum thickness value
Workpiece Surface Temperature	-10~60°C
Measuring Cycle	6 times/second in single point measurement, 20 times/second in scanning mode
Lower Limit For Pipe Measurement	$\Phi 20\text{mm} \times 3.0\text{ mm}$ (5Mhz probe); $15\text{mm} \times 2.0\text{ mm}$ (7Mhz probe)
Indication Error	less than $\pm 0.1\text{mm}$
Calibration	4.0 mm(Steel)
Power Source	AAA alkaline battery 1.5V (4 pieces)
Working Time	Continuous operation up to 250 hours (without backlight)
Weight	245g
Working Environment	Operating temperature -20°C to +50°C Storage temperature: -30°C to +70°C Relative humidity $\leq 90\%$; The surrounding environment should be free from intense vibration, strong magnetic fields, corrosive media, and severe dust.
Dimensions	145mmx74mmx32mm

Standard Delivery

Name	Qty	
Main unit	1 pc	
Standard Probe(5MHz)	1 pc	
Couplant	1 bottle	
ABS Instrument case	1 pc	
Document	1 copy	
AAA Size Alkaline batteries	4 pcs	
Data cable	1 pc	



Optional Delivery

Name	Qty
Large diameter probe (2.5MHz)	
Large range probe (2MHz)	
Micro-diameter probe (7MHz)	
High temperature probe (5MHz)	
High temperature couplant	

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10

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