

eThick-1280

Electromagnetic Ultrasonic Thickness Gauge



Contact us

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Feature and Application

eThick-1280 Electromagnetic Ultrasonic Thickness Gauge is an ultra-compact, couplant-free, non-contact measuring instrument. It can measure the thickness of metallic materials at both room and high temperature. It supports connection with an App for assisted measurement and can be equipped with high-temperature probes and small-bore probes to meet diverse measurement needs. Suitable for titanium, aluminum, copper, stainless steel, alloy steel, carbon steel, cast steel, etc.

Product Feature

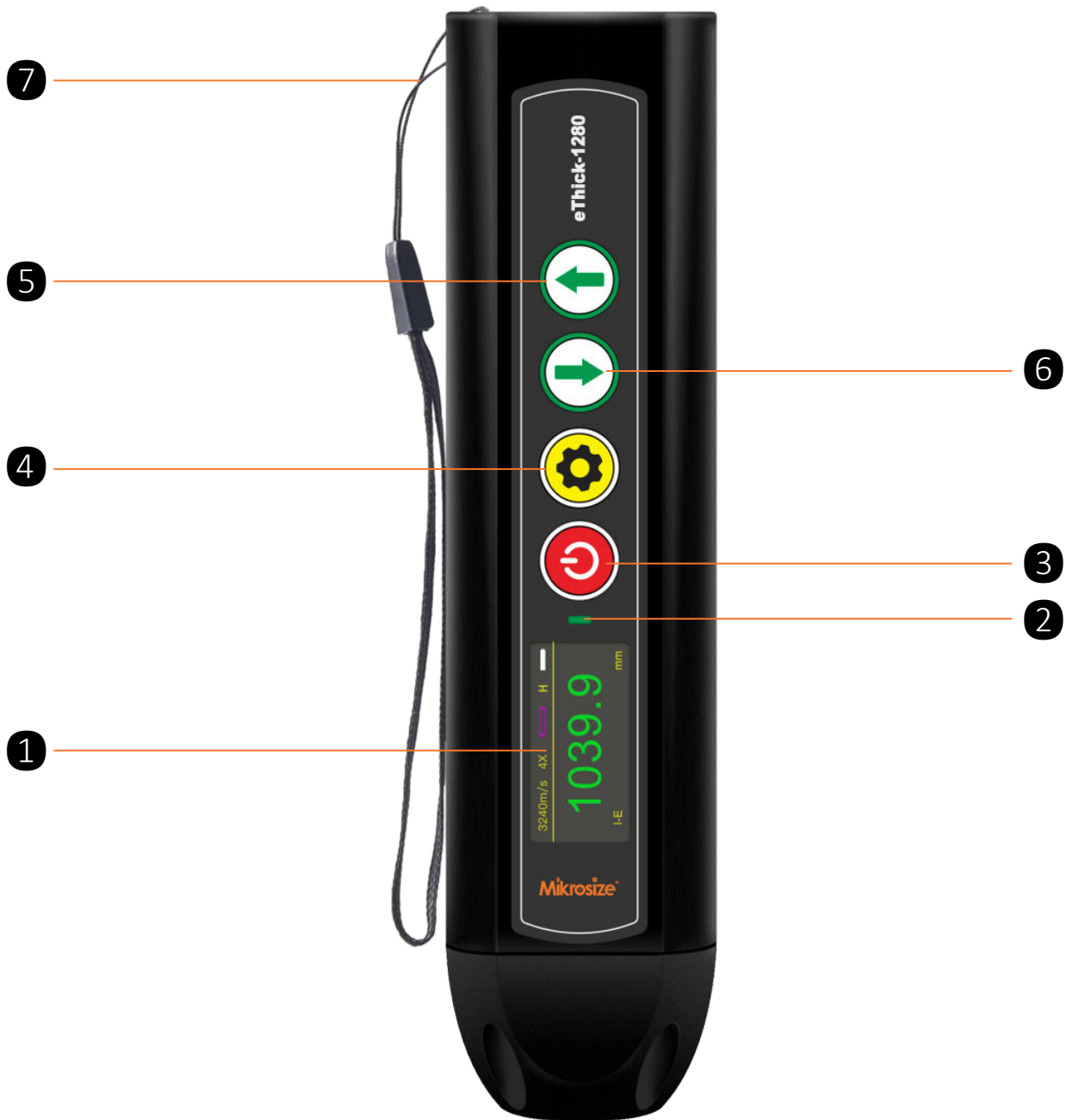
- Supports A-scan thickness measurement, capable of measuring ultra-thick workpieces;
- High-precision thickness measurement, coating-penetrable, no couplant required, no need to polish workpiece surfaces; compatible with surfaces coated with paint, cladding, or with unevenness;
- Pre-stored sound velocities for various materials inside the instrument, supporting dynamic addition and deletion of material sound velocities; sound velocity calibration is equipped with temperature compensation to improve measurement accuracy;
- High-definition LCD color screen, adaptable to measuring environments with different light conditions;
- Equipped with PC software for convenient reading of various data.

Product Application

- Petrochemical industry: High-temperature pipeline inspection, non-contact thickness measurement without couplant, suitable for 800°C high-temperature working conditions and coated pipe walls.
- Shipbuilding: Thickness detection of hull steel plates, no polishing for rough surfaces, fast batch measurement of large-area plates.
- Power industry: Thickness measurement of boilers and pressure vessels, stable measurement in high-temperature environments to ensure safe operation of pressure equipment
- Rail transit: Inspection of steel rails and vehicle metal parts, portable all-in-one design for fast and accurate on-site thickness data acquisition.
- Machinery manufacturing: Thickness measurement of castings and forgings, compatible with various metal materials, meeting measurement needs of both thin parts and thick plates
- Steel structure construction: Thickness verification of building components, non-contact measurement without damaging workpieces, improving inspection efficiency.



Product Details



1.LCD Color Screen

2.Indicator Light

3.Switch Key

4.Set Key

5.Up Key

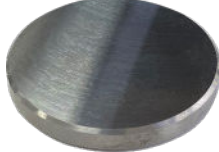
6.Down Key

7.Safety lanyard

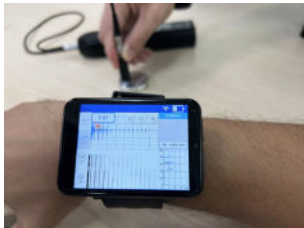
Technical Specification

Sampling	80MSPS
Bandwidth	2.5MHz~6MHz
Transmit	±600V_400Hz_125ns
Gain	Automatic, 0 ~ 96 dB, 1 dB step
Measurement Accuracy	±0.01mm
Sound Velocity Range	400~9999 m/s
Effective Range	0.75~1280 mm
Averaging Level	Three adjustable levels: L, M, H
Lift-off Distance	5 mm (Aluminum), 4 mm (Carbon Steel), 3 mm (Stainless Steel), 0~5 mm
Carbon Steel Range	1X: 160 mm; 2X: 320 mm; 3X: 640 mm; 4X: 1280 mm
Measurement Materials	Aluminum, copper, iron, carbon steel, cast steel, alloy steel, stainless steel, titanium alloy and other metals
Measurement Channels	2* Thin part, General, Bar material
Measurement Mode	Single echo (I-E), Double echo (E-E)
Search Modes	Leading edge-leading edge, Peak-peak, Peak-leading edge
Auxiliary Functions	Auto-freeze, Auto-gain, Auto-sleep, A-scan waveform display, Wi-Fi connection to mobile phones
Correction Functions	Gate adjustment, Blank adjustment, Gain adjustment, Sound velocity calibration, Zero calibration, High-temperature compensation
Communication	RS-485 or USB 2.0
Charger	5 V 2 A, standard Type-C interface
Display Screen	1.47-inch 320×172 IPS LCD
Dimension	178.4mm*42mm*32mm
Battery Life	3.7 V 3400 mAh lithium battery, 6 hours of endurance
Net Weight	Metal housing: 358 g; Injection-molded housing: 255 g; Injection-molded + quick release: 289 g

Standard Delivery

Name	Qty	Photo
Main Unit	1pc	
USB Charger	1pc	
Charging Cable	1pc	
Test Block (Iron)	1pc	
Test Block (Aluminum)	1pc	
Instrument Case	1pc	
Certificate of Conformity	1copy	
Instruction Manual	1copy	

Optional Delivery

Name	Remark	Photo
Industrial Pad	Supports Android, HarmonyOS	
Mobile Phone	Supports Android, HarmonyOS	
Wrist Watch	Supports Android, HarmonyOS	
Small-bore Probe	4MHz, $\Phi 13\text{mm} \times 36\text{mm}$	
Large-bore Probe	4MHz, $\Phi 40\text{mm} \times 60\text{mm}$	
High-temperature Probe	4MHz, $\Phi 33\text{mm} \times 40\text{mm}$	