

DT-159

DATASHEET



1.General Information

- The coating thickness gauges work either on the magnetic.
- Induction principle or on the eddy current principle, depending on the type of probe used.
- You can select the type of probe via MENU system, or it will be work automatically.
- The gauges conform to the following industrial standards: GB/T 4956-1985; GB/T 4957-1985; JB/T 8393-1996; JJG 889-95; JJG 818-93.

2.Features

- Measured Coatings: Non-magnetic coatings (e.g. paint, zinc) on steel; Insulating coatings (e.g. paint, anodizing coatings) on no-ferrous metals
- 2.4" TFT color LCD display
- Temperature, Humidity and Dew point temperature measurement
- Auto-rotatable screen: 0°, 90°, 180°, 270°
- Stability test
- Continuous test
- Set auto power off time
- SSPC mode
- Warning with Beeper and Backlight Flash, 3-Color LED indication
- Menu operation system
- Working modes: DIRECT, GROUP and SSPC mode
- AVG, MAX, MIN, Stand and Deviation (S.DEV) Display
- Basic, One point and SSPC mode calibration
- Low battery, error indication
- USB interface for PC analysis software
- 10 levels of LCD lighting adjustable
- Language selection: English, German, Italian, French, Chinese, Japanese

3.Application

- This compact and handy gauge is designed for non-destructive, fast and precise coating thickness measurement, the principal applications lie in the field of corrosion protection.
- It is ideal for manufacturers and their customers, for offices and specialist advisers, for paint shops and electroplaters, for the chemical, automobile, shipbuilding and aircraft industries and for light and heavy engineering.
- The gauges are suitable for laboratory, workshop and outdoor use.
- The probe can work on both principles, magnetic induction and on the eddy current principle.
- One probe only is required for coating measurement both on ferrous and non-ferrous metal substrates.
- It is adaptable to specific tasks: i.e. they can be used on special geometries or on materials with special properties.

4.Supply Schedule

- Gauge with two AA 1.5V battery, plastics carrying case, operating instructions, steel and aluminum substrate.
- USB connecting cable
- Connect software

5.Probe

- The Probe systems are spring-mounted in the probe sleeve, this ensures safe and stable positioning of the probe and constant contact pressure.
- A V-groove in the sleeve of the probes facilitates reliable readings on small cylindrical parts.
- The hemispherical tip of the probe is made of hard and durable material. Hold the probe by the spring mounted sleeve and put on measuring object.

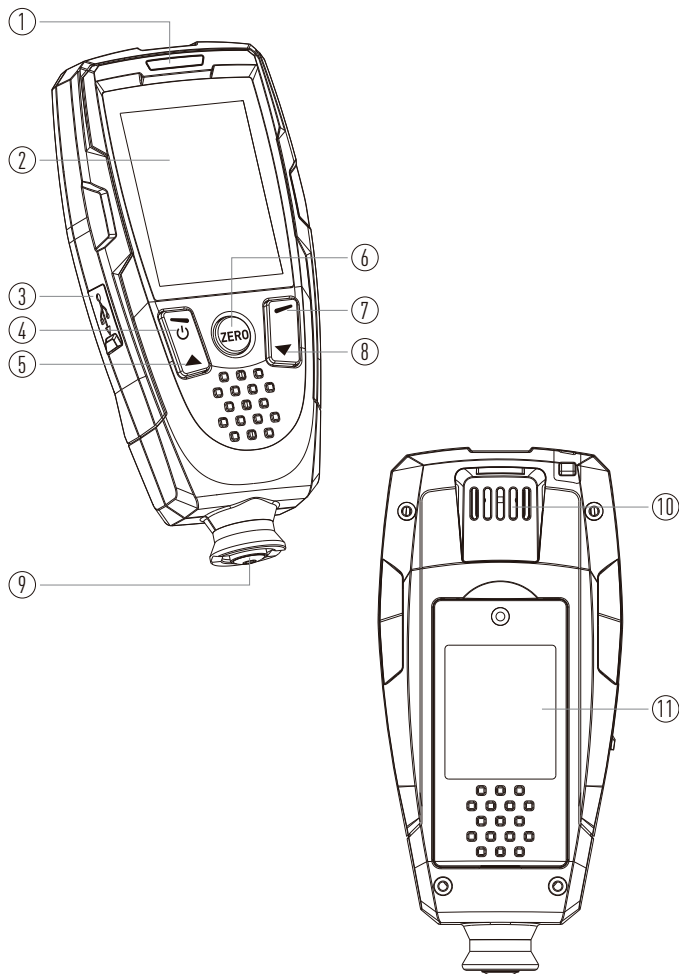
6.Specifications

Sensor Probe	F	N
Working Principle	Magnetic Induction	Eddy Current Principle
Measuring Range	0~2000 μ m	0~2000 μ m
Guaranteed to Larence (of reading)	($\pm 2\% \pm 2$) μ m	($\pm 2\% \pm 2$) μ m
Repeatability	($\pm 1\% \pm 1$) μ m	($\pm 1\% \pm 1$) μ m
Low Range Precision	0.1 μ m	0.1 μ m
Minimum Curvature Radius	1.5mm	3mm
Diameter of Minimum Area	7mm	5mm
Basic Critical Thickness	0.5mm	0.3mm
Temperature Range	0 to 50°C/32 to 122°F	
Temperature Accuracy	$\pm 1.2^{\circ}\text{C}$	
Humidity Range	0 to 100%RH	
Humidity Accuracy	$\pm 3.2\%$ RH at 20%~70%; $\pm 4\%$ RH other	
Size (HxWxD)	35x64x137mm	
Weight	175g	

7.Description

7-1.Meter Description

- 1-Warning with 3-Color LED
- 2-LCD Display
- 3-USB Interface
- 4-Menu/Power Button
- 5-Up Button
- 6-Zero Calibration Button
- 7-Enter Button
- 8-Down Button
- 9-Probe
- 10-Temperature and Humidity Sensor
- 11-Battery Cover



7-2.Symbols on the Display

1-Material Type

- NFE: Indicates readings on non-ferrous metals
- FE: Indicates readings on ferrous metals

2-Time

3-Battery Level

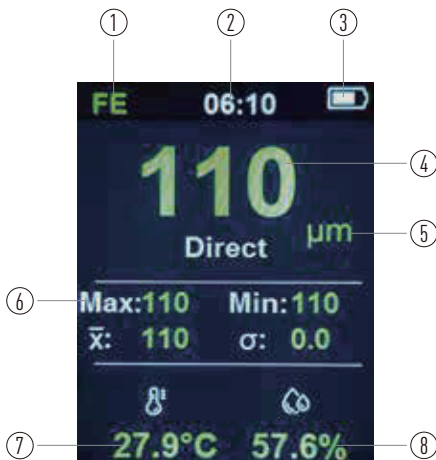
4-Measurement Data

5-Scale

6-Statistic Display: AVG, MAX, MIN, SDEV

7-Temperature Display

8-Humidity Display



8.Maintenance and Repair

8-1.Cleaning and Routine Maintenance

- Care should be taken to avoid dropping the instrument, do not immerse in water or any other liquid.
- If the instrument case becomes dirty, clean the covers with mild soap and water as soon as practical.
- Avoid using solvents to clean the instrument as it may be seriously damaged by strong solvents.

8-2.Troubleshooting

- If an error occurs, first remove the batteries and replace with a new set.
- Use of high quality alkaline batteries are preferred however, rechargeable batteries may be used.
- The instrument has no provision to charge rechargeable batteries so they must be recharged using a separate charger (not included), do not mix battery types.
- If the instrument is going to be stored for more than 30 days, remove the batteries to prevent discharge and subsequent leakage.
- If new batteries do not restore use, contact your local office for assistance.

8-3.Service and Spare Parts

For all service and spare parts requirements, please contact your local office.