Generic ET360

Digital Tester ET360 Thickness Gauge User Manual

Brand: Generic

1. Product Overview

The ET360 Digital Thickness Gauge is a high-precision instrument designed for measuring the thickness of coatings on various metal substrates. It is capable of measuring on both ferrous (Fe) and non-ferrous (NFe) metals, including Fe+Zn coatings. Its compact size and ergonomic design allow for convenient one-hand operation, making it ideal for automotive paintwork inspection and other industrial applications.
Key features include micron-level accuracy, automatic substrate identification, and a wear-proof high-precision probe tip for long-term reliability.

Figure 1: Front view of the ET360 Digital Thickness Gauge, showing the display and control buttons.

Figure 2: Key features of the ET360, highlighting its HD wide-angle display, ergonomic design for comfortable grip, durable ABS material construction, and the high-precision measurement probe.

2. Setup

2.1 Battery Installation

The ET360 thickness gauge requires two (2) AAA batteries for operation (batteries not included). Follow these steps to install the batteries:

1. Locate the battery compartment cover on the back of the device.
2. Slide or unclip the cover to open the compartment.
3. Insert two AAA batteries, ensuring the correct polarity (+/-) as indicated inside the compartment.
4. Close the battery compartment cover securely.

Figure 3: Illustration of battery installation in the ET360 thickness gauge, showing the open battery compartment and placement of AAA batteries.

2.2 Powering On/Off

Press and hold the power button (usually marked with a power symbol) to turn the device on. The display will illuminate. To turn off the device, press and hold the power button again, or the device may automatically shut off after a period of inactivity to conserve battery life.

3. Operating Instructions

3.1 Measurement Principles

The ET360 utilizes two primary measurement principles:

- **Electromagnetic Induction (Fe, Fe+Zn):** Used for measuring non-magnetic coatings on magnetic substrates (e.g., steel, iron). This includes coatings like paint, plastic, enamel, and zinc plating on steel.
- **Eddy Current Effect (NFe):** Used for measuring non-conductive coatings on non-magnetic, conductive substrates (e.g., aluminum, copper, brass). This includes coatings like paint, anodizing, or plastic on aluminum.

The gauge automatically identifies the substrate material (ferrous or non-ferrous) and switches to the appropriate measurement mode rapidly.

3.2 Taking a Measurement

1. Ensure the device is powered on.
2. Place the probe tip perpendicularly onto the surface to be measured. Apply gentle, steady pressure.
3. The measurement reading will appear on the digital display.
4. Lift the probe from the surface to prepare for the next measurement.

3.3 Calibration

For accurate measurements, periodic calibration is recommended. The ET360 supports calibration at multiple points:

- **Zero Calibration:** Calibrate on a bare, uncoated substrate of the same material as the one you intend to measure.
- **Multi-point Calibration:** The device supports calibration at 0, 50, 100, 250, 500, and 1000 micrometers (um) using standard calibration foils. Refer to the on-screen prompts or specific instructions in the device's internal menu for detailed calibration procedures.

Always ensure the calibration foils are clean and free from dust or damage.

3.4 Unit Selection

The ET360 can display measurements in micrometers (um) or mils (mil). Use the "um/mils" button to toggle between these units as needed.

4. Maintenance

4.1 Cleaning

To ensure the longevity and accuracy of your device:

- Wipe the device body with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- Keep the probe tip clean and free from debris. Gently wipe it with a soft cloth if necessary. Avoid scratching or damaging the probe surface.

4.2 Storage

When not in use for extended periods, remove the batteries to prevent leakage and potential damage to the device. Store the gauge in a cool, dry place, away from direct sunlight, extreme temperatures, and high humidity.

5. Troubleshooting

If you encounter issues with your ET360 thickness gauge, consider the following:

- **Device does not power on:**
  - Check if batteries are installed correctly with the right polarity.
  - Replace old or depleted batteries with new ones.
- **Inaccurate readings:**
  - Ensure the probe tip is clean and free of debris.
  - Perform a zero calibration on a known bare substrate.
  - Perform multi-point calibration using standard calibration foils.
  - Ensure the probe is placed perpendicularly and firmly on the surface.
  - Verify the substrate material matches the expected measurement mode (Fe/NFe).
- **Display issues (e.g., blank, flickering):**
  - Check battery level and replace if low.
  - Ensure the device is not exposed to extreme temperatures.

If problems persist after attempting these solutions, please contact customer support.

6. Specifications

The following table details the technical specifications of the ET360 Digital Thickness Gauge:

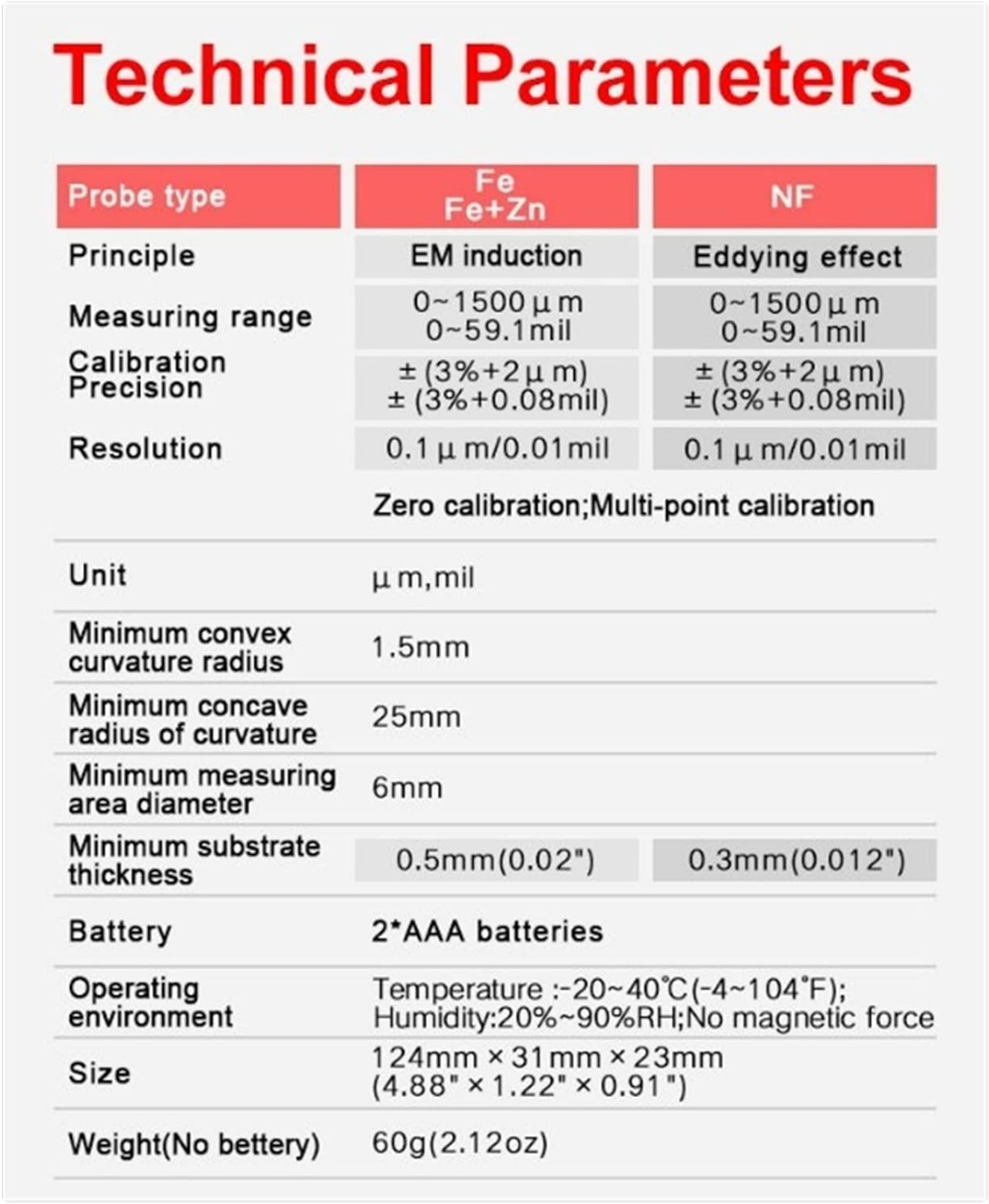

Figure 4: Detailed technical specifications for the ET360 Digital Thickness Gauge, including probe types, measurement ranges, accuracy, resolution, and operating conditions.

ET360 Technical Parameters

Parameter	Fe, Fe+Zn Probe (Magnetic Induction)	NFe Probe (Eddy Current)
Principle	EM Induction	Eddying effect
Range	0~1500um (0~59.1mil)	0~1500um (0~59.1mil)
Accuracy	±(3%+2um) / ±(3%+0.08mil)	±(3%+2um) / ±(3%+0.08mil)

Parameter	Fe, Fe+Zn Probe (Magnetic Induction)	NFe Probe (Eddy Current)
Resolution	0.1um / 0.01mil	0.1um / 0.01mil
Minimum Thickness of Substrate	0.5mm (0.02in)	0.3mm (0.012in)
Calibration Points	0 / 50 / 100 / 250 / 500 / 1000um	
Power Supply	2 * AAA Batteries (not included)	
Item Weight	2.2 pounds (approx. 1 kg)	
Dimensions (Size)	124mm × 31mm × 23mm (4.88" × 1.22" × 0.91")	
Operating Environment	Temperature: -20~40°C (-4~104°F); Humidity: 20%~90%RH; No magnetic force	

7. Warranty and Support

For information regarding product warranty, returns, or technical support, please refer to the purchase documentation or contact the seller/manufacturer directly. Typically, products purchased through Amazon may be subject to a 30-day return policy. Specific warranty terms may vary by region and seller.
For further assistance, please visit the product page on Amazon or contact the seller **6046** (Seller ID: A3PZ3UC1AST4FQ).