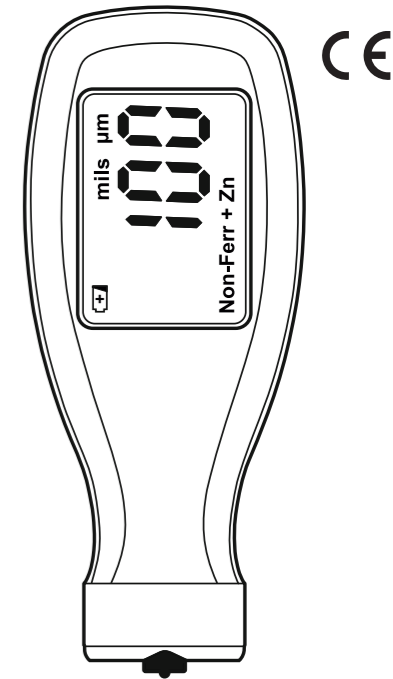


Thickness Coating Gauge

MD-888

for measurement on all metallic body parts



2. If the meter shows „----“. This means the coating thickness on Ferr or on Non-Ferr is more than **2000 μm** or the measuring material is **not metal** (for example: plastic, wood, etc.)

Zinc function:


The device is able to detect galvanized parts up to a coating thickness of 500 μm. If the device detects zinc during the measurement, „+Zn“ flashes on the display.

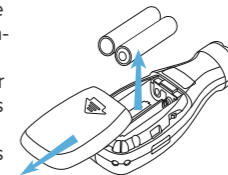
Detection of magnetic putty:

The device is able to detect magnetic putty. If the device detects magnetic putty, **two beeps sound** and “**Ferr**” as well as the **measuring value are blinking**.

MAINTENANCE

Installing and Replacing Battery

1. Power is supplied by 2pcs 1.5V (AAA SIZE) batteries.
2. The “” appears in the display when battery replacement is needed.
3. Remove the battery cover by gently sliding it onwards the bottom of the meter.
4. Remove the batteries from battery compartment.
5. Replace with 2 new (unused branded) AAA batteries with polarity as indicated on the bottom of Battery Compartment.
6. Replace the Battery Cover.



CAUTION: When not in use for long periods remove battery (risk of leakage). Do not store in locations with high temperatures, or high humidity.

Weak batteries can affect the operation of the device.

CLEANING

Periodically wipe the case with a damp cloth and detergent, do not use abrasives or solvents.

(This automatically calibrated the instrument and terminated the calibration mode).

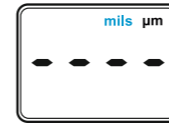
Repeat the same calibration procedure **also on the other disc (non-ferrous)**.

The device is then completely calibrated.

MILS/MICRON:

Turn on the device by pressing the sensor.

Press and hold the **multi-function key until 3 beeps sounded**, the display changes from „mils“ to „μm“ and vice versa. (1 mil = 25.4 μm)



DISPLAY ILLUMINATION:

The device has a display illumination that switches on automatically when the sensor is pressed and remains on for 7 seconds. When the sensor is pressed again, the display illumination is activated again for 7 seconds. With each measuring process, the display illumination is switched on for a further 7 seconds.

INSTRUCTION

Power on and off:

1. Keep the sensing tip of the meter away from any substrate or any magnetic field.
2. **The Gauge automatically powers up when sensing tip is pressed.**
3. Auto Power Off (APO): Leave the gauge without operation for 50 seconds, power turns off automatically. Audible signals sound before the shutdown.

Measuring:

1. Press the sensing tip of the gauge to contact coated surface tightly, wait for the reading to appear, measuring value and the material (Ferr or Non-Ferr) is shown, herewith the measurement is completed (**One “Beep” sound announced**).



FUNCTION KEY

The instrument has a multi-function key for the following **functions**:

- 1) for the factory setting „Reset“ self- calibration,
 - 2) **calibration**,
 - 3) switching from „mils“ to „μm“.
- This is located below the battery cover at the top of the instrument above the battery compartment. To access the multifunction key, please remove the battery cover.

“RESET“ – SELF-CALIBRATION

1. Press the sensing tip to turn on the device.
2. Press the multi-function key **only briefly**, a beep sounds and the LCD-display shows „0000“ and then „----“.



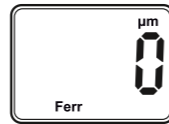
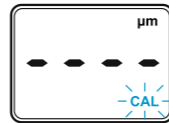
The factory reset restores the device to its original settings. After the factory reset, the device can be recalibrated. **The factory setting is sufficient to precisely determine differences in the paint thickness on the vehicle.**

CALIBRATION

First have one of the two calibrating discs, e.g., **the iron disc (Ferrous)** ready.

Steps:

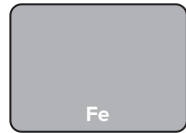
1. Switch on the device by pressing the sensor.
2. Hold down the multi- function key and **release the key after the second beep**, „CAL“ will flash on the display.
3. Place the sensor of the unit straight on the disc until a **beep sounds** and on the **display** appears “0”. Then **remove the sensor from the calibration disk**.



DEFINITION

Zeroing Plate

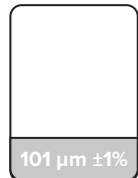
Ferrous is steel plate



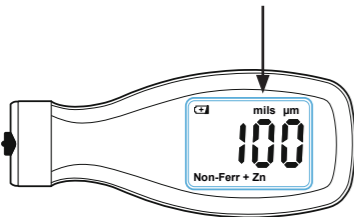
Non-ferrous is Aluminum plate



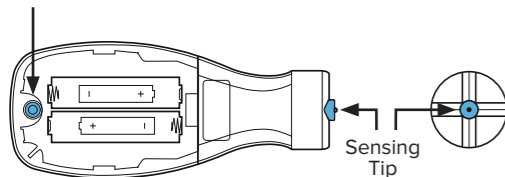
Standard Coating Foil 101 μm ±1%



LCD-Display



Function key





SENSOR

made of wear-resistant ruby



AUTOMATIC

calibration, shutdown, substrate detection



DETECTION

of galvanized parts and magnetic putty



MEASURING RANGE

0-2000µm (Measurement accuracy ±3%)



WINTER-RESISTANT

at an ambient temperature of -15°C to +50°C



LIGHTNING-FAST

Response time is less than **0.5** seconds



DISPLAY ILLUMINATION

with automatic switch on and off after 7 seconds



TURN ON

by pressing on sensor



AUDIBLE

signal during measurement and shutdown



SWITCHING

between mils and micrometers

INTRODUCTION

This instrument is a digital, portable, easy to use and compact-sized very handy digital “ferrous” or “non-ferrous” coating gauge, designed for simply one-handed operation. This is the successor to the MD-666. It can also detect **galvanizations** as well as **magnetic putty**. Meter comes with backlight LCD display and Auto Power Off to extend battery life.

SAFETY INFORMATION IMPORTANT!

Please read the safety and operation instructions before using the coating thickness gauge. Ensure proper commissioning of the device. Please observe this operating manual.

Not a toy, keep the device away from children. The handling of measuring instruments must be monitored responsibly by trained personnel.

CAUTION

→ Do not use the unit near any device which generates strong electromagnetic radiation or near a static electrical charge, as these may cause errors.

→ Do not use the unit where it may be exposed to corrosive or explosive gases. The unit may be damaged, or explosion may occur.

→ Do not keep or use this unit in an environment where it will be directly illuminated by sunshine, or where it condenses. If you do, it may be deformed, its insulation may be damaged, or it may no longer function according to specification.

→ Do not place the meter on or around hot objects (70°C/158°F). It may cause damage to the case.

→ If the meter is exposed to significant changes in ambient temperature, allow 30 minutes for temperature stabilization, before taking measurement.

→ Condensation may form on the sensor when going from a cold to hot environment. Wait for 10 minutes

for condensation to dissipate before taking measurements.

→ This unit is not constructed to be waterproof and dustproof. Do not use it in a wet or very dusty environment; this can result in damage and inaccurate measurements.

→ To ensure **accurate measurement**, make sure that the surface is clean and the sensing tip contacts the coated surface tightly without tilting.

→ Please make sure there are no air bubbles between substrate and coating.

→ The use of measuring instruments in schools, training institutions, hobby and self-help workshops must be supervised by trained personnel.

→ The device is not intended for industrial and production purposes.

We do not assume any liability for consequential damages! In case of damage by disregarding this manual, the warranty will void!

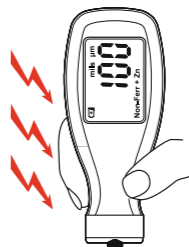
→ For material damage or personal injury, caused by improper use or disregard of the safety instructions we do not assume any liability! For safety and certification reasons conversion and/or modification of the device is not permitted. Make sure that the device is put into operation properly and follow the instructions in this operating manual.

→ The enclosed zeroing plates are only suitable for the use of calibration of coating thickness meter itself. Apart from that to get accurate readings before use. The zeroing on specific material substrate still needs to be done before taking formal measurements, such as Iron, Steel, Bronze, Copper, Nickel, Zinc, and SUS304 and so on, which is to avoid the measuring errors caused by the difference of individual substrates. The end users can get much more accurate measuring readings on the specific metal under test by doing calibration.

WARNING

Electromagnetic field interference

This instrument uses magnetic field method to measure the coating thickness on ferrous metal base. If this meter was placed in the environment with 20mG (mini Gauss) or higher, the accuracy would be affected. Suggest that the meter should be put far away from the interfered source at least 30cm. Electromagnetic field interference can lead to incorrect measurement values.



Electromagnetic field strength: (unit = mini Gauss)

Electromagnetic Source	0cm	30cm
Cellular Phone Charger	50 ~ 500	< 1
Notebook Power Supply	100 ~ 1000	< 5
LCD-Display	10 ~ 100	< 1
Fan	100 ~ 1000	< 5
Reading Lamp	400 ~ 4000	< 10

Any product with coil inside should be considered.

SPECIFICATION

ELECTRICAL

Detectable Substrate Material:

Ferrous metal (iron, steel) and Non-Ferrous metal (copper, aluminium, zinc, bronze, brass, etc.)

Ferrous Thickness Range:

0 to 80.0mils, 0 to 2000µm.

Non-Ferrous Thickness Range:

0 to 80.0mils, 0 to 2000µm.

Display Resolution: 0.1mils/1µm.

Ferrous Accuracy:

±0,3mils on 0 to 7.8mils.

±(3%+0,04mils) on 7.9mils to 80.0mils.

±7µm on 0 to 199µm.

±(3%+1µm) on 200µm to 1999µm.

Non-Ferrous Accuracy:

±0,3mils on 0 to 7.8mils.

±(3%+0,04mils) on 7.9mils to 80.0mils.

±7µm on 0 to 199µm.

±(3%+1µm) on 200µm to 1999µm.

Response Time: under 0,5 seconds.

GENERAL

Operating Environment:

5°F to 122°F (-15°C to 50°C) at < 75% R.H.

Storage Temperature:

5°F to 140°F (-15°C to 60°C), 0 to 80% R.H. with battery removed from meter.

Temperature Coefficient:

0.1 x (specified accuracy) / °C (<18°C or >28°C)

Auto Power Off: 50 seconds.

Battery: 1.5V (AAA size) x 2pcs.

Battery Life:

30 hours (continuity) typical with alkaline battery.

Low Battery Indication: The “” is displayed when the battery voltage drops below the operating level.

Dimensions: 110mm (H) x 47mm (W) x 30mm (D).

Weight: Approx. 85g (including battery).