

## Coating Thickness Gauge, for Iron Metals



### INTRODUCTION

This instrument is a compact designed, portable, digital and easy to use 3 1/2 digit display instrument for coating thickness measurement. It was a comfortable, one-handed Operation designed. The meter includes an illuminated LCD display, offers an AUTO-HOLD function, and has an automatic shut-off (about 15 sec. After releasing the trigger).

### CAUTION

- Do not use the instrument near by a device, which generates a strong magnetic or electro-static field. This could lead to faulty test results.
- Do not expose the instrument no corrosive or explosive gases. The instrument could be damaged.
- Do not expose the instrument to direct sunlight or condensation. This could lead to deformation of the case and damage the insulation or the instrument may not be able to work anymore as described.
- Don't store instrument on or near hot objects (70 ° C/158 ° F). It could lead to damage of the housing.
- Should the instrument be exposed to extreme temperature fluctuations (hot to cold and cold to hot), take into account a period of about 30 minutes for temperature stabilization before using the device.
- If the unit is used for longer than a minute may lose the values of accuracy. The device remains in the calibrated range of accuracy.
- Condensation may affect the sensor. Consider a period of 10 minutes to allow decay before starting to clear any condensation occurring.
- This device is neither water nor dust. Sure to use it in damp or very dusty environment.
- Make sure always assume that the probe set on the layer to be measured resting and create no difficulties.
- Before the measurement, if any air bubbles between coating layer and substrate may interfere with the measurement.
- Manual calibration is necessary before each use.
- Two-point calibration is recommended to use the device to repetitive measurement points. To achieve maximum accuracy

### SPECIFICATIONS

**Display:** 3 1/2 digit LCD display with a max "1999"

**Battery indicator:** If the battery power fall under the Operating level, a message appears on the display.

**Measurement rate:** 1 second, nominal.

**Operating Environment:** 32°F to 122°F (0°C to 50°C) at <75% humidity

**Storage:** -4°F to 140°F (-20°C to 60°C) at 0-80% humidity and battery is removed.

**Auto Power Off:** 15 seconds

**DC power consumption in standby mode:** <6µA

**Battery:** Standard 9V battery (NEDA 1604, IEC 6F22 006P).

**Battery power:** 9h continuous use with backlighting.

**Dimensions:** 148mm (H) x 105mm (W) x 42mm (T).

**Weight:** about 157g (including battery)

**Applies to:** Ferrous metals (iron, steel)

**Accuracy:**

+ / - 0 to 7.8 mils on 4dgts

+ / - 7dgts to 0 to 199µm

+ / - (3% + 4dgts) to 7.9 mils to 40mil (200µm to 1000µm)

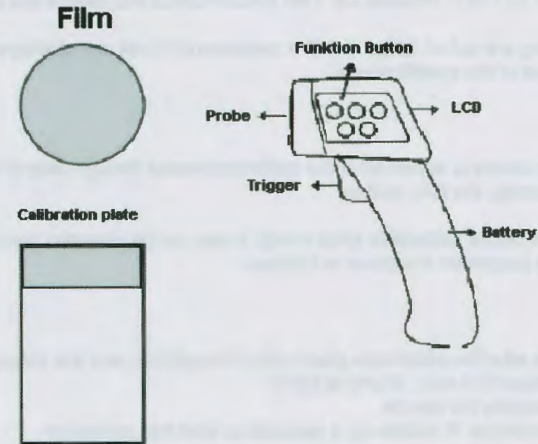
**Temperature coefficient:**

+ / - 0.1% of the selected unit, whichever is greater. Change of accuracy in °F / °C.

Change in operate temperature above 82.4°F / 28 use °C or under 64.4°F / 18°C.

**Response time:** 1 second

### DEFINITION



Before first use, remove the film from the calibration plate.

## FUNKTION BUTTON

“☐”

Press “☐” Button to switch on / off the backlight.

“mils/μm”

Press “mils/μm” Button switch from mils to μm.

(1 mils = 25.4 μm)

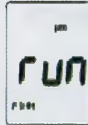
“CAL”

See section Calibration

## OPERATION

### Switch Unit On/Off

1. Press the trigger to activate the device and wait until the symbol appears "run".  
The device is now used.



2. Automatic Power Off (APO):

After 15 seconds, not in use, the device switches off automatically.

## MEASUREMENT

1. Press the trigger to turn on the device.
2. Press the sensor firmly to the coated surface to be measured. Pull the trigger and allow him to immediately release it. DO NOT PROBE OF THE UNDERGROUND before the measured value is displayed.
3. If the measured coating are out of range, is still a measurement value is displayed. This is less accurate than indicated in the specifications.

## CALIBRATION

**Tip:** Take your time, the device is achieved in the calibration mode through step 6 or press and hold for 4 seconds, the CAL button.

1. Select the desired unit before calibration (mils / mm). It can not be changed during the calibration.
2. During calibration, the automatic shutdown is inactive.

## EASY CALIBRATION

1. For calibration, please take the calibration plate (round metal disc) and the calibration sheet (rectangular sheet labeled 3.9 mils, 99μm) at hand.
2. Press the trigger to activate the device.  
Press the "CAL" and then the ▼ button for 4 seconds to start the calibration.  
The display flashes "- - 1".
3. Press the device with the probe on the calibration film (3.9 mils, 99μm), the calibration plate (round metal plate) must be lie under the calibration film ,press and hold the trigger till the item shows a reading.
4. The trigger can now released and the device can be removed from the calibration plate.  
Use the ▼ ▲ button to set the displayed reading on the thickness of the calibration plate (3.9 mils or 99μm).
5. Press "CAL" button to confirm the value. The display flickers "- - -" then "- - 2".
6. Then press again the "CAL" button and hold for 4 seconds to leave the calibration menu and to return to the application mode.

## TWO-POINT CALIBRATION

1. For the two-point calibration, please take the calibration plate (round metal disc) and the calibration sheet (rectangular sheet labeled 3.9 mils, 99μm) at hand.
2. Switch on by pressing the trigger.  
Press "CAL" button for 4 seconds to start the calibration.  
Then the display flashes "- - 1".
3. Press the device with the probe on the calibration plate (round metal plate), without calibration sheet , then press and hold the trigger till the display shows a reading.
4. The trigger can now released and the device can be removed from the calibration plate. Adjust with the ▼ ▲ buttons to select the displayed value to Zero.
3. Press "CAL" button to confirm. The display first shows "- - -" and then "- - 2".
4. Press the device with the probe on the calibration film (3.9 mils, 99μm), the calibration plate (round metal plate) must be lie under the calibration film ,press and hold the trigger till the item shows a reading.
4. The trigger can now released and the device can be removed from the calibration plate.  
Use the ▼ ▲ button to set the displayed reading on the thickness of the calibration plate (3.9 mils or 99μm).
5. Press "CAL" button to confirm. The display flickers "- - -" and then "- - 3".
6. Hold the "CAL" button for 4 seconds to leave the calibration mode and the device turns off automatically.

### Note:

If you hold the "CAL" button for 4 seconds during calibration, the unit will return to the application mode and NOT stores the calibration value!

## OPERATING INSTRUCTIONS

1. Keep the instrument away from surfaces and electromagnetic fields when you put it into operation.
2. Press the trigger to activate the device and wait until the symbols "run" and "HOLD" will be displayed.
3. Press the sensor firmly to the surface to be measured.
4. To measure, pull the trigger and immediately releasing it.  
Do not take away the probe from underground before the measured value is displayed.
4. If the measured coating outside of the range, still displays a measured value. This is less accurate than indicated in the specifications.

## MAINTENANCE

Replacing the battery:

1. The device is powered by a 9 volt battery (NEDA 1604, IEC 6F22)
2. Remove the battery cover carefully, the coverage under a slight pressure on the arrow icon slowly slide down.
3. Remove the old battery and the battery cable away from the battery housing. Insert the new battery.  
Put the cover on the battery housing

### Cleaning

Wipe regularly the housing of the unit with a damp cloth and mild detergent.

Do not use acids, alkalis or solvents to clean.



Attention