Coating Thickness Gauge TW-1 maxi

art. nr. 59304

Operation Manual

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The price of this product includes the recycling fee of 0,10 PLN

Before You start to use the device, please read this operation manual.

1. Technical specifications

Basic specifications of the device:

- measurements on steel and galvanized steel sheets;
- measurement resolution: 0,1µm, 1µm or 10µm (possible to switch between from the menu);
- measurement range: from 0µm to 3000µm;
- measurement memory (also after turning the device off): 100 units;
- LCD backlight;
- intuitive operation with 6-positions menu;
- automatic shut-off after 3 minutes of idleness;
- measuring sensor diameter: 20mm;
- powered by 9V alkaline battery or accu (e.g. 6LR61);
- power consumption: ~30 mA;
- zeroing function.

2. Getting started

Coating thickness gauge TW-1 maxi is designed to measure the thickness of a steel or galvanized steel sheet paint coating. The measurement resolution equals 1µm. The device is equipped with an internal EEPROM memory for 100 measurements which enables to check the results after the measurement is made. The memory doesn't get deleted after turning off the device, although it is possible to delete it from the menu. The device has a LCD backlight which makes measuring in places with insufficient light (e.g. garage) much easier.

Before You start to take measurements, please place a new alkaline battery or a fully charged accu in the back side of the device's housing. In order to do it please take off the battery flap and place correctly the battery or accu by connecting it to the clips on the cable.

WARNING! ***1. Check the battery poles before You connect it to the clips. 2. Use only alkaline batteries as normal batteries provide unsufficient power. 3. You can use instead of a alkaline battery a compatible, fully charged accu. 4. If the device seems to work improperly it can be caused by an empty battery or acc.***

To take a measurement please put the device's sensor against the examined surface. The sensor should adhere as flat as possible. The examined surface should be clean and smooth, otherwise the measurement can be incorrect.

3. Gauge manual

The device is operated with 2 buttons:

- button **OK [MENU]**: turns the device on, accepts the selected functions and returns from them to the main menu, when pressed during the measurement it memorizes the displayed value;
- button **FUNCTION**: switches between the functions in the main menu, switches between the stored measurement values.

To turn the device on please press the **OK[MENU]** button for about 1 second. After displaying the company's logo and the device's type, the device switches automatically to the main menu. You will see on the display Measur in the first line and Memory in the second line. The * symbol indicates the currently selected function.

Please press the **FUNKTION** button to switch between the following functions:

- Measur – measure function: takes measurements;
- Subst. - type of substrate
- Memory – memory function: recalls the stored measurement values;
- Off – off function: switches the device off;
- Delete – delete function: deletes the stores measurement values;
- Zero – zeroing function: calibrates the device;
- Resol. – resolution function: changes the measurement resolution.;

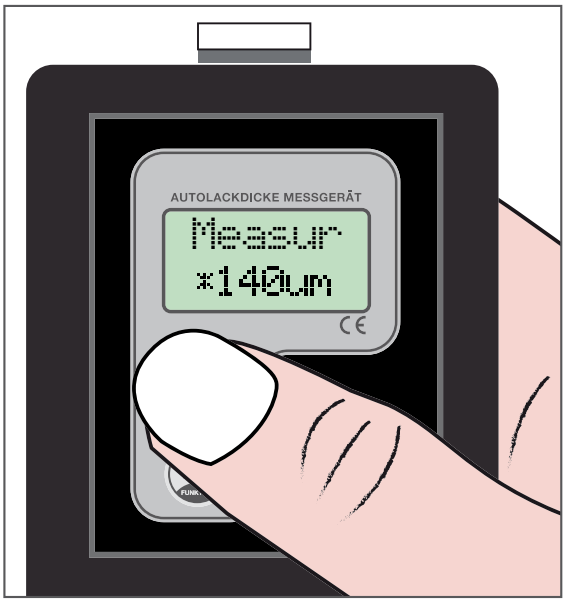
To select a function please press the **OK [MENU]** button.

Measure function - Measur

After You select this function the display will show Measur in the first line and -----um in the second. The gauge is ready to take measurement.

After You put the sensor against the body of the car the result of the measurement will be shown in the second line.

To store the result please press the **OK [MENU]** button when taking the measurement. A * symbol appears next to the shown value.



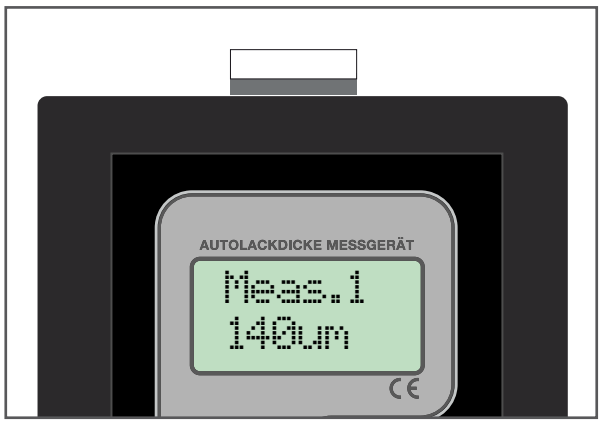
WARNING!

THE CAPACITY OF THE DEVICE'S MEMORY IS 100 RESULTS. NEXT STORAGES WILL DELETE THE OLDEST ONES.

After You finish taking the measurements please return to the main menu with pressing the **OK[MENU]** button.

Memory function - Memory

This function allows You to recall the latest measurement values. Please press the **FUNKTION** button to switch between the stored results. The first displayed result is the oldest one. After You get to the last result the device returns automatically to the first one. To return to the main menu please press the **OK [MENU]** button.



Off function - Off

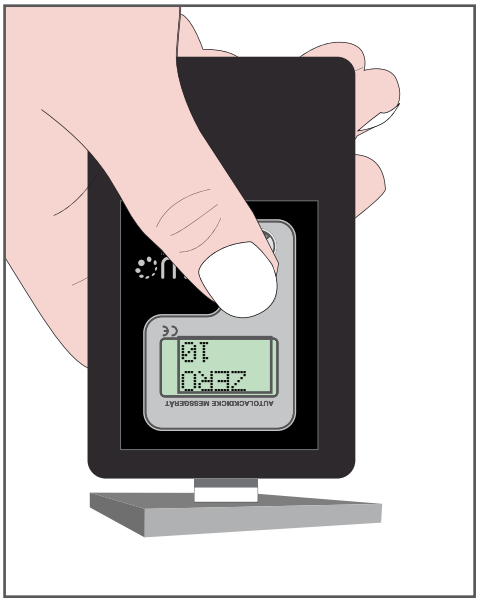
After You accept this function with the **OK[MENU]** button the device turns off.

Delete function - Delete

Choose this function to delete all measurement values stored in the device's EEPROM internal memory. After deleting the stored results the device returns to the main menu automatically.

Zeroing function - Zero

Use this function before You start to take measurements. After choosing this function put the sensor against of the calibration sheet. If the display shows a 0 +/-10µm value, it means that the gauge is well calibrated. Should the aberration be larger than 0 +/-10µm, please put the sensor once more against of the calibration sheet, wait until the result stabilizes and press the **OK[MENU]** button while the sensor still touches the sheet. On the display will appear a OK... caption and the device will return automatically to the main menu.



If the device is calibrated, You can cancel the Zero function by pressing the **OK[MENU]** button. Please note not to press the **OK[MENU]** button before the ---------- caption appears in the second line of the display – otherwise the gauge will decalibrate!.

WARNING! *While zeroing, the calibration sheet should be placed on a flat, stable non-metalic surface (e.g. do not place the sheet on the bodywork). Also, please avoid holding the sheet in Your hands as this may affect the operation..*

Please note that zeroing is worth to be made when the measurement conditions are changing (e.g. the temperature or humidity rises or falls).

Resolution function - Resol.

The software of the TW-1 maxi gauge allows to change the measurement resolution. After selecting this function it is possible to select with the **FUNKTION** button one of the following resolutions:

- D=10 – the result is rounded up to 10µm, the measurement is faster
- D=1 – the result is accurate to 1µm
- D=0.1 – the result is accurate to 0,1µm

While examining the bodywork D=10 is a sufficient option.

4. Notifications

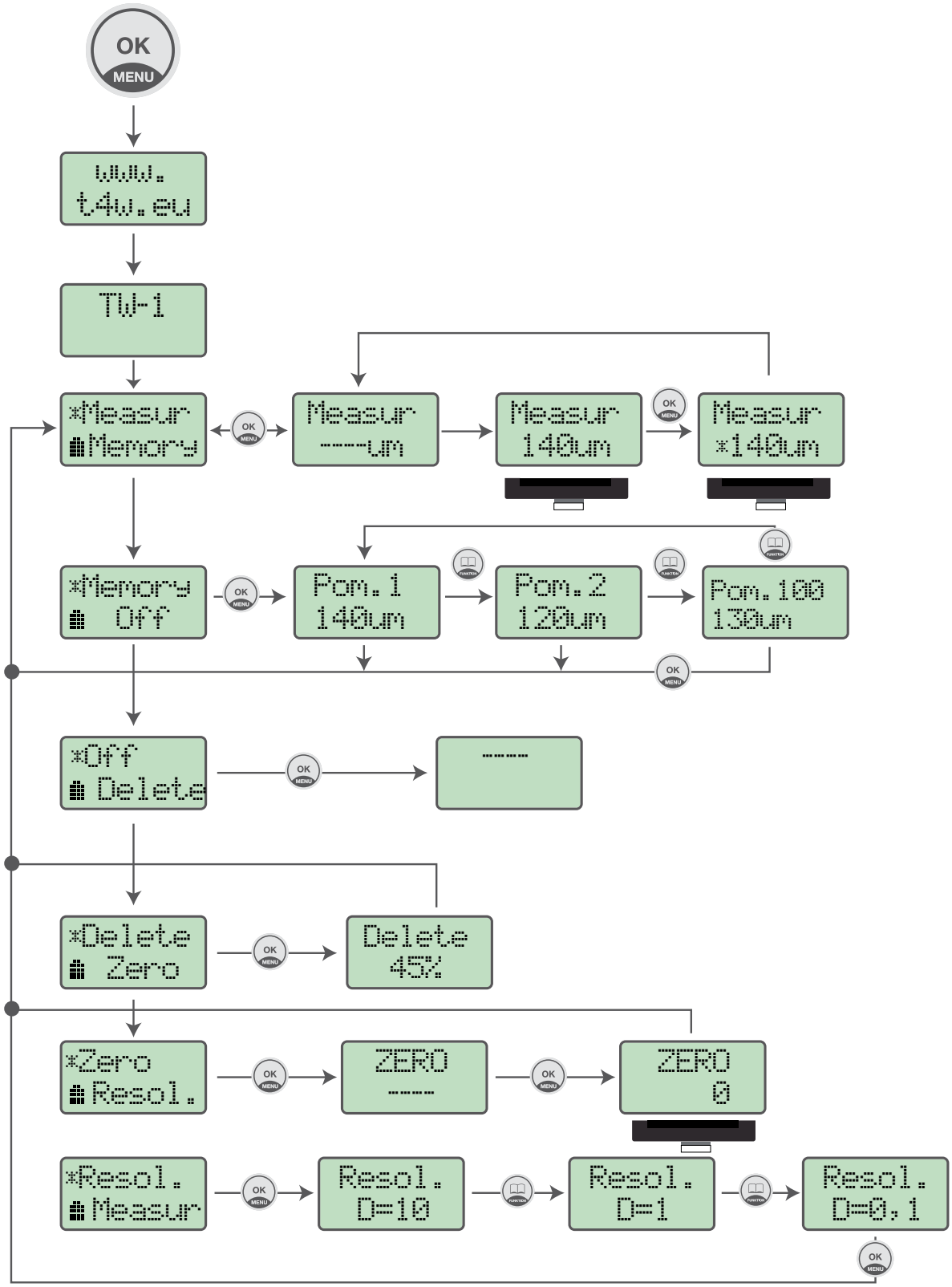
WARNING! ***The device has a secured service menu. It is very difficult to enter this menu, nevertheless it may happen. In case this happens it is very important NOT TO PRESS ANY BUTTONS. You should immediately reconnect the battery to reset the device. Pressing any buttons in the service menu may decalibrate the device's default settings.***

You will recognize the service menu by a „Rozn" caption shown on the display followed by a x-digit number. In this moment You should reconnect the battery!

ATTENTION!

- After decalibration of the device's default settings it is impossible to restore them!
- Restoring the device's default settings can be made only by the producer.

5. The algorithm of the device



Guarantee TW-1 maxi

1. The guarantee period of this device is 12 months from date of purchase.
2. Within this period the Producer guarantees a reliable function of the device, if operated correctly.
3. The Producer takes responsibility for all workmanship or material defects.
4. All defects will be repaired within 30 days since the device has been accepted by the Service.
5. The guarantee period will be prolonged by the time the device has been handled by the Service.
6. The device shall be delivered to the Service with all the standard equipment, clean and with readable button's description.
7. The guarantee will be treated as valid only with the date of purchase and with the stamp, or signature of the Producer filled out.
8. In case the device has to be shipped to the Producer, it happens on the shipper's responsibility and cost.
9. The device will be not accepted by the Service if pt. 6 is not kept, if the defect is of no workmanship or material nature, if the warranty card is not filled out, or the device is delivered with broken seal.
10. This guarantee shall not apply to damage caused through fire, accident, misuse, incorrect adjustment or repair, installation, modifications, or use in an improper way or inconsistent with the technical and safety standards required for it's operation.
11. All defects mentioned in pt. 10 can be repaired, if previously agreed with the Service. The cost depends on the nature of the defect.
12. After the guarantee period expires, defects can be repaired, if previously agreed with the Service. The cost depends on the nature of the defect.
13. The guarantee is only valid with filled out date of purchase, stamp or signature of the Producer and with an appropriate receipt.

Date of purchase

100% SATISFACTION GUARANTEED • Thoma 4 Werkstatt

Stamp / Signature

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