

Temperautre Indicator

M A N U A L



THI Series January 2019

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For your safety, please read the following before using.

1. Safety Cautions

⚠ Warning

1. It must be mounted on Panel.

It may give an electric shock.

2. Do not connect terminals while power on.

It may give an electric shock.

3. Do not disassemble and modify this unit. If it is necessary please contact us.

It may give an electric shock and cause fire.

4. Please check the terminals numbers when connecting power lines.

It may cause fire.

5. When cleaning the unit, do not use water or an oil-based detergent.

It may cause an electric shock or fire and so the unit will be damaged.

6. Please connect properly after checking the polarity.

It may cause fire.

2. Features:

1- Measure and display the temperature.

2- Different temperature inputs select (Pt100 (RTD), 0-10V, 4-20mA, 0-20mA or 0-10mA).

3- Internal power supply output 24VDC-0.3A.

4- Adjust the low and high values (Scaling).

5- All setting stored in EEPROM.

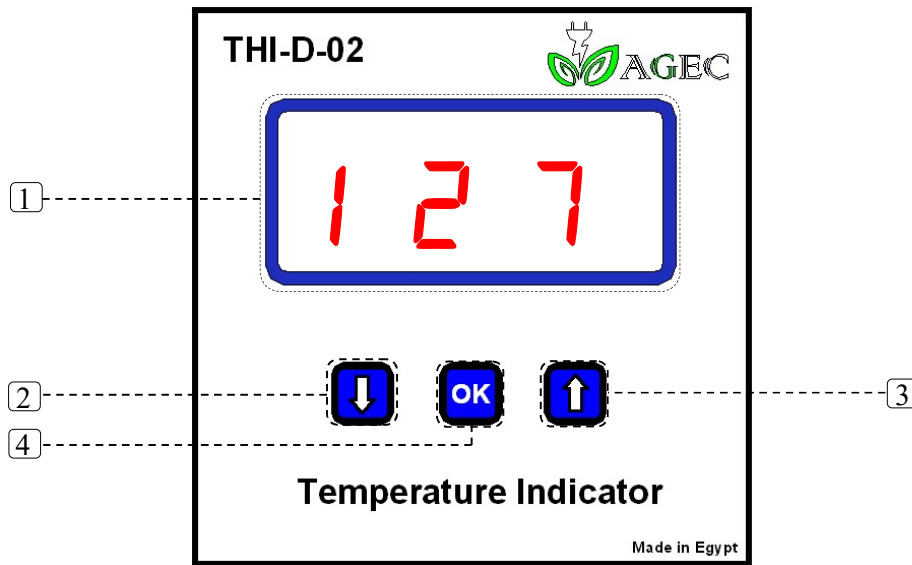
6- Seven segment display

7- Parameters adjust via keypad.

8- Correct mA and Pt100 reading with offset potentiometers.

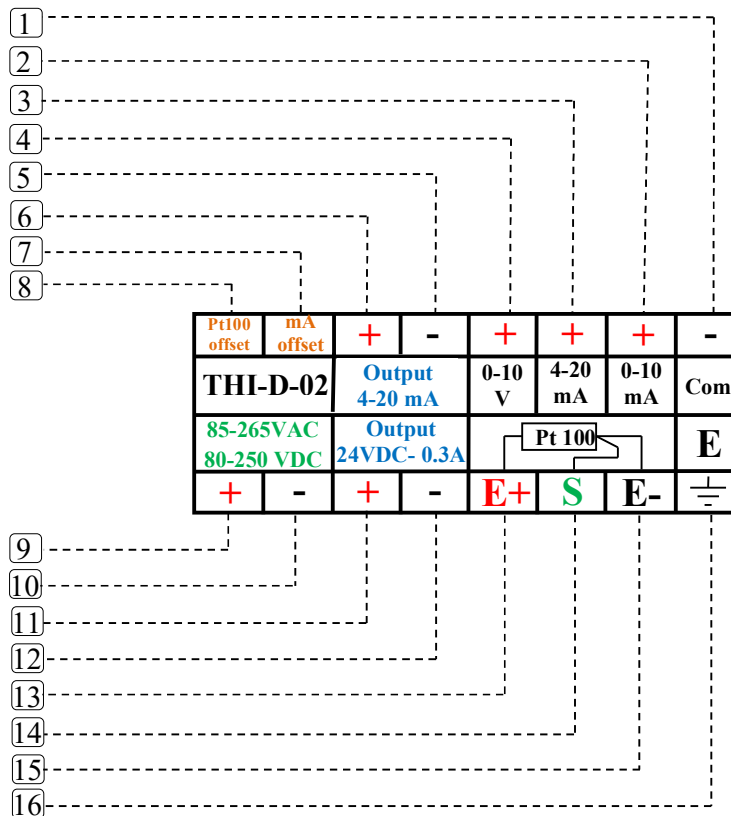
3. Device identification

3.1. Front



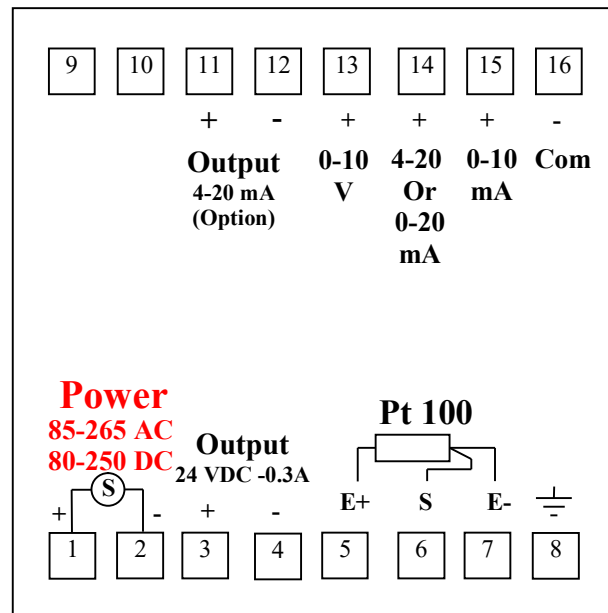
- 1 Seven segment to show temperature measurement
- 2 Down arrow key (decrease parameter value in edition mode).
- 3 Up arrow key (increase parameter value in edition mode).
- 4 Ok key (store parameter value and enter in edition mode).

3.2. Back



- 1 Negative of all inputs 0-10mA, 4-20mA, 0-20mA or 0-10V (Com).
- 2 Positive of input 0-10mA.
- 3 Positive of input 4-20mA or 0-20mA.
- 4 Positive of input 0-10V.
- 5 Negative of output 4-20mA or 0-20mA.
- 6 Positive of output 4-20mA or 0-20mA.
- 7 mA offset by potentiometer.
- 8 PT100 offset by potentiometer.
- 9 Positive of power supply in case of DC supply or Line in AC.
- 10 Negative of power supply in case of DC supply or neutral in AC.
- 11 Positive of output power supply 24VDC.
- 12 Negative of output power supply 24VDC.
- 13 Positive excitation of Pt100 input.
- 14 Sense of Pt100 input.
- 15 Negative excitation of Pt100 input.
- 16 Earth connection of the device.

3.3 Terminal Connection



4. Operations Procedures:


4.1 Start up :

First when connect power to the indicator the display will show the following:


1 2 6

This reading is the actual value according to input type, low value and high value.




4.2 Settings :

We need to adjust the scaling parameters so we will go to “edition mode” by pressing Ok key  for 3 sec until the screen show

L 0

Still press  until the screen show

0 0 4

- To increase the low value press up arrow key 
- To decrease the low value press down arrow key 
- To store settings press Ok key  until the display show


H 1

Then

1 5 0


- To save the new parameter setting press Ok key  the display will show

S A U


We need to select the input type so we will go to “selection mode” by pressing down arrow key  until the screen show the required type where :

Pattern	Mean
Pt	Pt 100
mA1	0-10 mA <u>or</u> 0-20 mA
mA2	4-20 mA
Vt	0-10 V

Then release the key

- To load default settings, switch off the indicator, press Ok key  then switch on the indicator and still press Ok key.

d e f

Still press  until the screen show

S e t

Then release the key, the screen will show the measured value

5. Technical Specifications:

5.1 Electrical Specifications:

Inputs:

Power supply range : 85 -265VAC / 80-250VDC or 9-30VDC.

Signal current range : 4-20mA, 0-20mA or 0-10mA

Signal volt range : 0-10V

Resistance range : Pt100 (RTD)

Accuracy : Class 0.5

Outputs:

Power supply : 24 VDC – 0.3 A (option)

Signal current range : 4-20mA or 0-20mA (option)

5.2 Mechanical Specifications:

Dimension : 9.6 cm * 9.6 cm * 11.2 cm

5.3 Protection Specifications

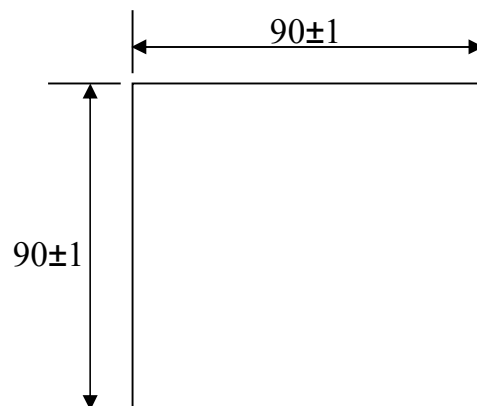
Electrical: 1A fuse and 250VAC varistor in power input.

Temperature : +5°C to +60°C.

Enclosure IP : IP 45.

- The enclosure is isolated according to standard EN 60439-1 specification.
- The enclosure is protected against external mechanical shocks.

6. Panel Cutout



(Unit: mm)

7. Ordering information

THI X- X X X- X X						
THI						Temperature Indicator Sires.
Power Supply	A B					85 - 265 VAC or 80 - 250 VDC. 9 - 30 VDC.
RTD Input		0 R				No RTD input. RTD input – PT100 sensor.
mA Input			0 C			No mA input. mA input - 4-20ma, 0-20mA or 0-10mA (Programmable).
Voltage Input				0 V		No Voltage input. 0-10V Voltage input.
mA Output					0 C	No mA output. mA output - 4-20ma or 0-20mA (Programmable).
Power Supply Output					0 S	No Aux supply output. 24 VDC – 0.3A Aux supply output.