

1 GETTING STARTED

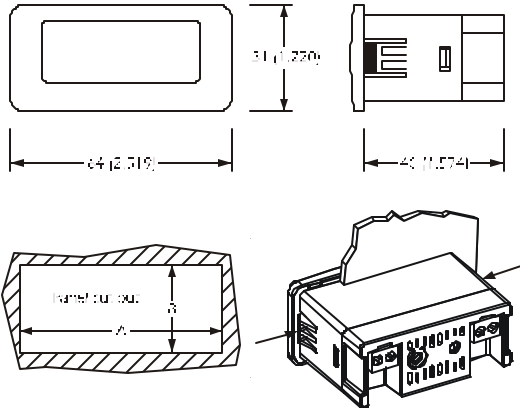
1.1 Important

Read these instructions carefully before installing and using the instrument; do not forget to follow all instructions for installation and electrical connection.

Keep these instructions close to the instrument for future consultations.

1.2 How to install the instrument

Panel mounting.

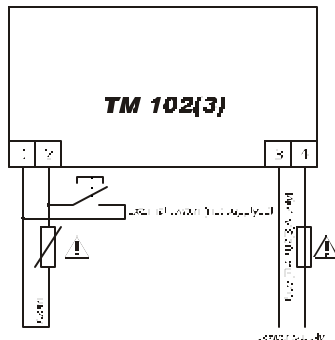


DIMENS.	MINIMUM	TYPICAL	MAXIMUM
A	58.5 (2.303)	58.5 (2.303)	58.8 (2.314)
B	25.5 (1.003)	25.5 (1.003)	25.7 (1.011)

Additional information for installation:

- the panel has to be 0.8 mm (0.031 in) thick at least
- working conditions (ambient temperature, humidity, etc.) have to be between the limits indicated in the technical data
- install the instrument in locations with suitable ventilation, in order to avoid the overheating of the instrument
- do not install the instrument close to heating sources (resistances, hot air ducts, etc.), locations subject to direct sunlight, rain, humidity, dust, mechanical vibrations or bumps, devices provided with big magnetic fields (big speakers, etc.)
- according to safety norms, the protection against electrical parts has to be ensured by a correct installation of the instrument; the parts that ensure the protection have to be installed so that you can not remove them if not by using a tool.

1.3 Wiring diagram



FOR TM102(3)A:

- the probe is not supplied with a SILV (secondary isolated low voltage) voltage; one suggests using probes with double insulation (except for instruments supplied with 12 Vac/dc SILV)
- protect terminal 4 with a fuse (100 mA T for instruments supplied with 230 Vac and 200 mA T for instruments supplied with 115 Vac).

Additional information for electrical connection:

- do not use electrical or pneumatic screwdriver on the terminal blocks
- if the instrument has been moved from a cold to a warm location, the humidity will condense on the inside; wait about an hour before applying power to the instrument
- test the working power supply voltage, working electrical frequency and working electrical power of the instrument; they have to correspond with the local power supply
- disconnect the local power supply before servicing the instrument
- do not use the instrument as safety device
- do not try repairing the instrument yourself; for repairs, always use the sales network
- for any further information concerning the instrument, please consult Quantem.

2 OPERATION

2.1 Preliminary information

When you apply power to the instrument, it will display its internal code for a short period of time. During the normal operation the instrument shows the room temperature.

2.2 How to calibrate the value the instrument is showing

Operate with a screwdriver on the trimmer there is at the back of the instrument (on the left-hand side).

3 TEMPERATURE STORING

3.1 How to show and erase the minimum and the maximum temperature the instrument has stored

To show the minimum and the maximum temperature the instrument has stored:

- be sure the instrument is turned ON
- press and hold the external switch: the instrument will show five times "Lr" alternated with the minimum temperature the instrument has stored and five times "Hr" alternated with the maximum temperature the instrument has stored; on afterwards the instrument will show five times "CA" alternated with the value of calibration of the probe.

To erase the temperatures the instrument has stored:

- release the external switch before the instrument finishes showing "Lr" and "Hr": the instrument will show five times "rS" flashing
- press and hold the external switch before the instrument finishes showing "rS": the instrument will show "rS" fixed for 2 s (it means the temperatures have been erased); on afterwards the instrument will show five times "CA" alternated with the value of calibration of the probe.

4 ALARMS

4.1 Alarms

CODE MEANING

CODE	MEANING
E0	Room probe alarm
	Remedies:
	• check the kind of probe
	• check the integrity of the probe
	• check the connection instrument-probe
	• check the temperature close to the probe
	Effects:
	• the instrument will not show the room temperature

5 TECHNICAL DATA

5.1 Technical data

Box: self-extinguishing grey.

Size: 64 x 31 x 40 mm (2.519 x 1.220 x 1.574 in).

Installation: panel mounting, panel cut out 58.5 x 25.5 mm (2.303 x 1.003 in, for tolerances look at paragraph 1.2), with elastic fins.

Frontal protection: IP 65.

Connections: screw terminal blocks with pitch 5 mm (0.196 in, power supply and input).

Ambient temperature: from 0 to 55 °C (32 to 131 °F, 10 ... 90% of relative humidity without condensate).

Power supply: 230 Vac, 50/60 Hz, 11 VA or 115 Vac, 50/60 Hz, 11 VA or 12 Vac/dc, 50/60 Hz, 0.65 VA (in alternating current) for TM 102(3)A; 230 Vac, 50/60 Hz, 0.65 VA or 115 Vac, 50/60 Hz, 0.65 VA or 24 Vac, 50/60 Hz, 0.65 VA for TM 102(3)T.

Measure inputs: 1 (room probe) for NTC probes.

Calibration range: from -10 to 10 °C (-18 to 18 °F) for TM 102; from -10.0 to 10.0 °C (-18.0 to 18.0 °F) for TM 103.

Working range: from -40 to 99 °C (-40 to 99 °F) for TM 102; from -40.0 to 110 °C (-40.0 to 230 °F) for TM 103.

Resolution: 1 °C (1 °F) for TM 102; 0.1 °C (0.1 °F) for TM 103.

Display: one red LED 2-digit display 13.2 mm (0.519 in) high for TM 102; one red LED 3-digit display 13.2 mm (0.519 in) high for TM 103.

External switch: it is not supplied; use a switch with NO contact and with an insulation in class II.