

Temperature measurement module from Pt100 sensors, for 4 120 53

Cat. N°: 4 120 58



Contents	Pages
1. Description - Use.....	1
2. Range.....	1
3. Overall dimensions.....	1
4. Preparation - Connection.....	1
5. General characteristics.....	2
6. Compliance and approvals.....	3

1. DESCRIPTION - USE

Temperature measurement module.
Allows temperature measurement by external Pt100 sensors.
The module is equipped with 2 independent measurement channels.

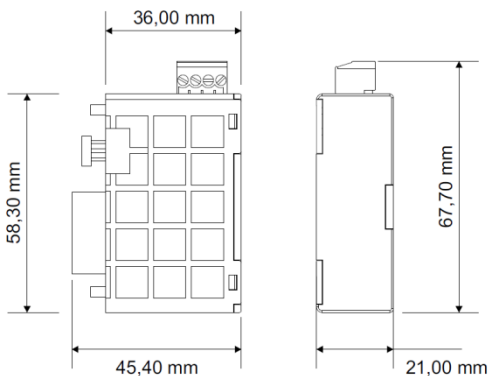
2. RANGE

. Cat. N° 4 120 58: Temperature measurement module from external Pt100 sensors; associable only to multifunction measuring device 4 120 53.
. It is possible to connect only one module 4 120 58.

Auxiliary supply:

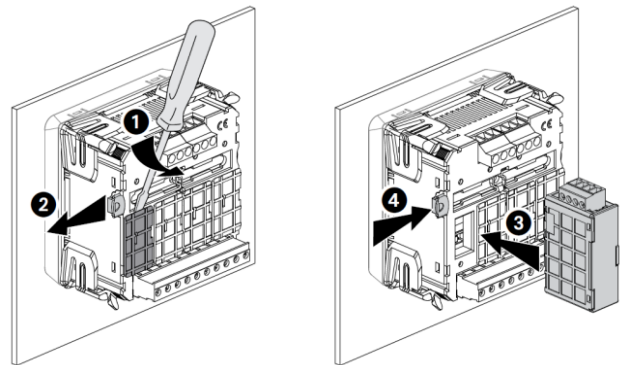
. Supplied by the multifunction measuring device 4 120 53

3. OVERALL DIMENSIONS



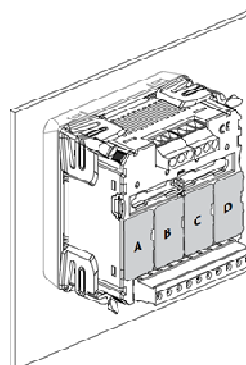
4. FIXING - CONNECTION

Fixing:



Note: modules must be connected with the device 4 120 53 not supplied.

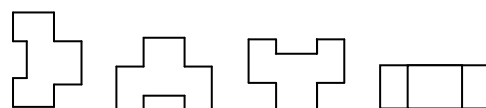
Associability table:



	A	B	C	D	
4 120 55	✓	✗	✗	✗	max. 1
4 120 56	✓	✗	✗	✗	max. 1
4 120 57	✗	✗	✓	✓	max. 2
4 120 58	✗	✗	✗	✓	max. 1
4 120 59	✓	✓	✓	✓	max. 2
4 120 60	✗	✗	✓	✓	max. 2
4 120 61	✗	✓	✗	✗	max. 1

Operating position:

. Vertical Horizontal Upside down On the side



Temperature measurement module from Pt100 sensors, for 4 120 53

Cat. N°: 4 120 58

4. FIXING - CONNECTION (continued)

Screw terminals:

- . Terminal depth: 8 mm.
- . Stripping length: 8 mm

Screw head:

- . Screw slotted.

Recommended tightening torque:

- . 0,6 Nm.

Tools required:

- . For terminals: flat screwdriver 2,5 mm
- . For fixing the modules to the measuring device: flat screwdriver max. 5 mm.

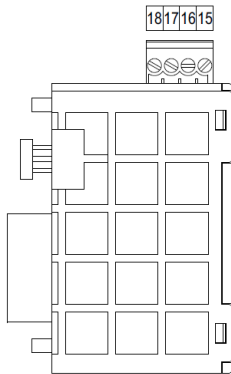
Connectable section:

- . Copper cables.

	Without ferrule	With ferrule
Rigid cable	0,05 to 2,5 mm ²	-
Flexible cable	0,05 to 1,5 mm ²	0,05 to 1,5 mm ²

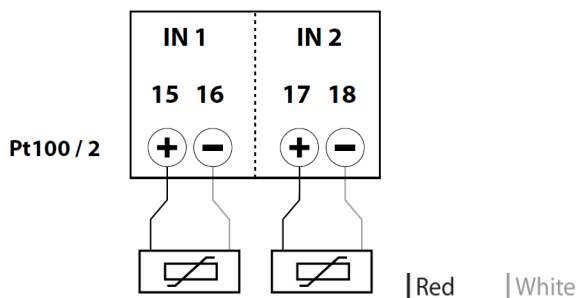
Wiring diagrams:

- . Terminals identifications



Wiring diagram Pt100 temperature sensors

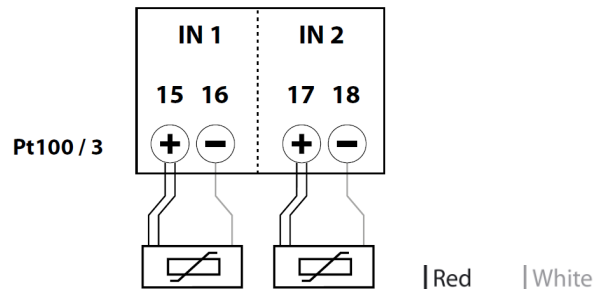
- . Sensor 2-wires



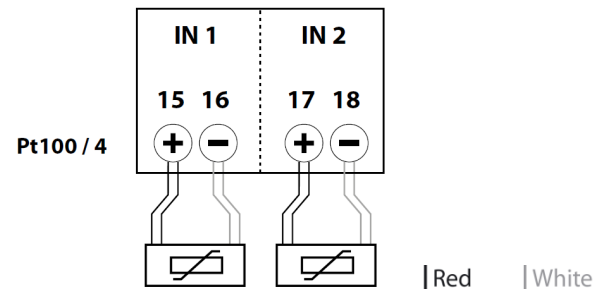
4. FIXING - CONNECTION (continued)

Wiring diagram Pt100 temperature sensors (continued)

- . Sensor 3-wires



- . Sensor 4-wires

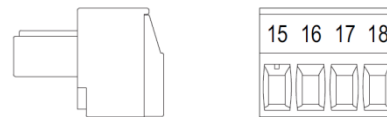


Note: metallic part of the sensor must be earthed.

5. GENERAL CHARACTERISTICS

Terminals marking:

- . By permanent ink pad printing.



Characteristics of the measuring inputs:

- . 2 inputs (not isolated from each other)
- . Sensor type: Pt100 resistor probe of platinum
- . Measuring range: (- 50 °C) ÷ (+ 350 °C)
- . Sensors cable max. length: 3 m
- . Line resistance: ≤ 1 °C (with 1,5mm² cable and length10m)
- . Measuring current (applied to Pt100): ≤ 500µA
- . Linearization Pt100: according to IEC/EN 60751
- . Precision: cl. 0,5
- . Readings update:
 - 1 s, for variations ≥ 10 °C
 - 10 s, for variations < 10 °C

Measurement display:

- . Resolution: 1 °C
- . Out of scale indication:
 - "high": T > (+ 350 °C)
 - "low": T < (- 50 °C)
- . Display of measuring circuit interruption: the display shows the text "high".

5. GENERAL CHARACTERISTICS *(continued)*

Plastic material:

. Self-extinguishing polycarbonate.

Ambient operating temperature:

. Min. = - 5 °C Max. = + 55 °C.

Ambient storage temperature:

. Min. = - 25 °C Max. = + 70 °C.

Impulse withstand voltage:

. Measuring inputs / All circuits
alternate current 50 Hz / 1 min.: 2 kV

Note: values referred to combination measuring device + add-on module.

Average weight per device:

. 0,040 kg.

Volume when packed:

. 0,30 dm³.

Consumption:

. Module 4 120 58: ≤ 1 VA
. Measuring device 4 120 53 + 1 Module 4 120 58: ≤ 5 VA

6. COMPLIANCE AND APPROVALS

Compliance to standards:

. Compliance with Directive on electromagnetic compatibility (EMC)
n° 2004/108/EC
. Compliance with low voltage directive no. 73/23/CEE dated 19
February 1973, modified by directive no. 93/68/CEE dated 22 July
1993, modified by directive n° 2006/95/CE.
. IEC/EN 60751