

## Temperature measurement module from Pt100 sensors, for 4 120 53

Cat. N°: 4 120 58



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### 1. DESCRIPTION - USE

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

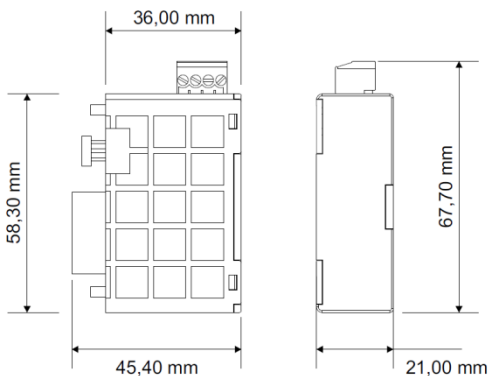
### 2. RANGE

. 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:

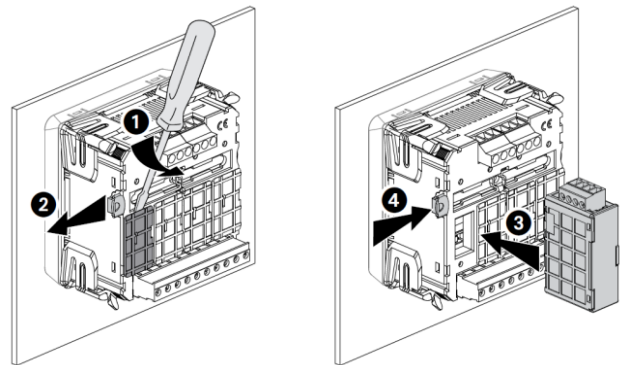
. Supplied by the multifunction measuring device 4 120 53

### 3. OVERALL DIMENSIONS



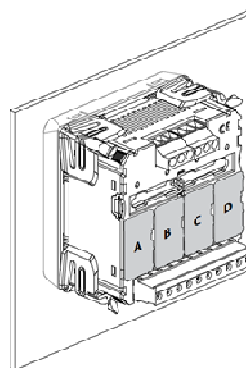
### 4. FIXING - CONNECTION

#### Fixing:



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

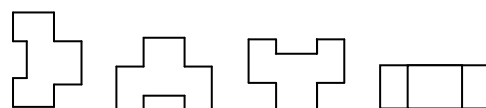
#### Associability table:



	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



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## 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.

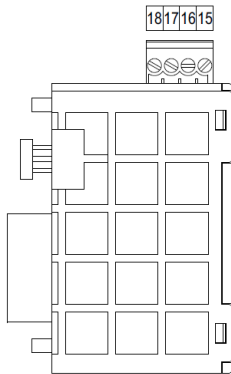
### Connectable section:

- . Copper cables.

	Without ferrule	With ferrule
Rigid cable	0,05 to 2,5 mm <sup>2</sup>	-
Flexible cable	0,05 to 1,5 mm <sup>2</sup>	0,05 to 1,5 mm <sup>2</sup>

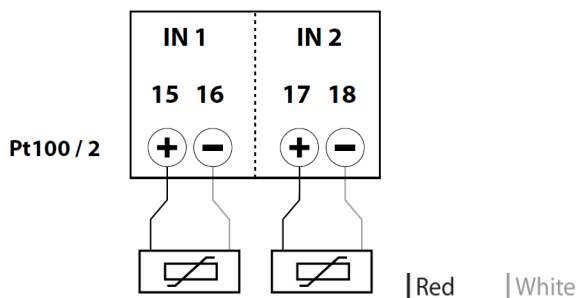
### Wiring diagrams:

- . Terminals identifications



### Wiring diagram Pt100 temperature sensors

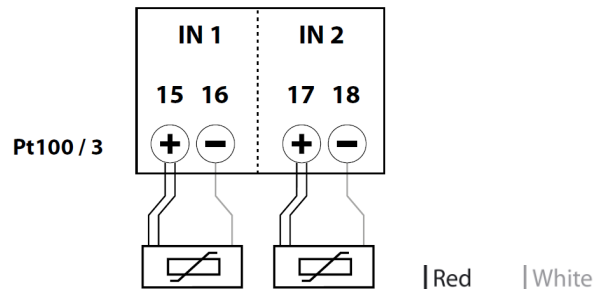
- . Sensor 2-wires



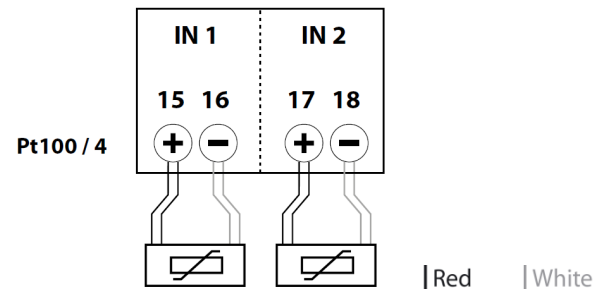
## 4. FIXING - CONNECTION (continued)

### Wiring diagram Pt100 temperature sensors (continued)

- . Sensor 3-wires



- . Sensor 4-wires

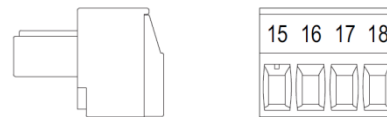


**Note:** metallic part of the sensor must be earthed.

## 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 1,5mm<sup>2</sup> 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 dm<sup>3</sup>.

**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