

## Tm-Pt1000-box

Module Temperature Sensor with Platinum Resistance and Connection Box



### Short Description

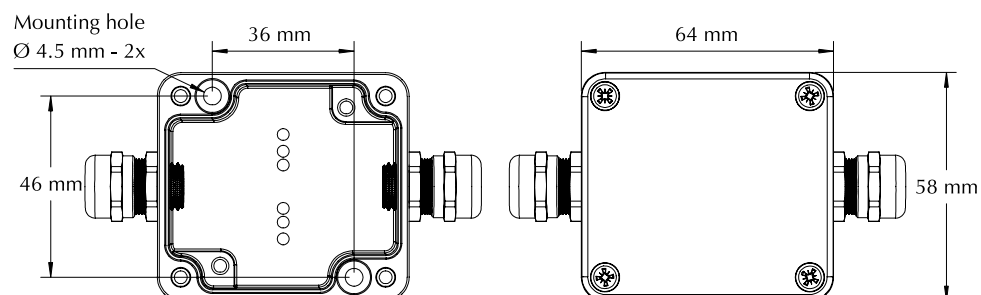
Our module and surface temperature sensors come equipped with a robust weatherproof cable. Thanks to the use of top quality components the sensors achieve very high accuracy and are ideal for use in industrial and field environments (PV module temperature).

Additional the sensor Tm-Pt1000-Box comes equipped with a stable Aluminum housing and connection clamps inside. The sensor can be connected in four wire technique.

### Technical Data

Type	Tm-Pt1000-box
Sensor Element	Pt1000 Class A as per EN 60751
Sensor Housing	Self-Adhesive Aluminium Block, 35 mm x 12 mm x 6 mm
Sensor Cable (Pt1000)	Length: 3 m, PUR coated, shielded (LiYC11Y, 2 x 0.25 mm <sup>2</sup> )
Case Material	Powder-Coated Aluminium
Case Dimension / Protection Level	64 mm x 58 mm x 34 mm / IP 67
Weight	approx. 240 g
Operating Condition	Sensor Element -40 to +90°C (see below Installation Instruction) Case -40 to + 80°C
Customs Tariff Number / HS Code	90 25 19 00

### Drawing



## Tm-Pt1000-box

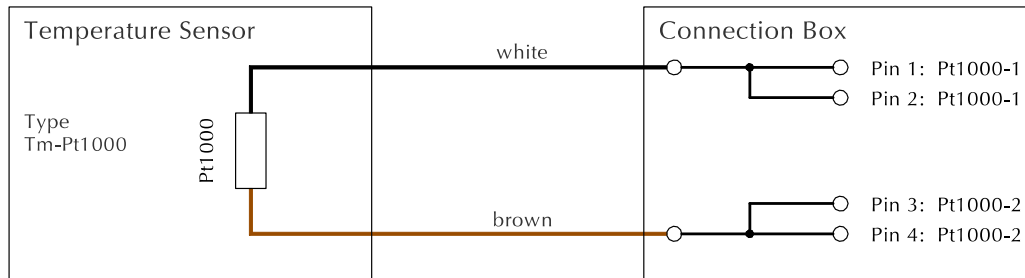
### Module Temperature Sensor with Platinum Resistance and Connection box

#### Safety Instructions

The installation and assembly of electrical equipment must be carried out by electrically qualified persons. The sensor may not be used with equipment whose direct or indirect purpose is to prevent human death or injury, or whose operation poses a risk to humans, animals or property.

#### Electrical Connection

The sensors are designed for safety extra-low voltage (SELV) operation. For keeping the accuracy of the sensor a 4 wire measurement is strongly recommended. Due to the self-heating, the wire current affects the accuracy of the measurement. Thus, the same should not exceed 0.1 mA.



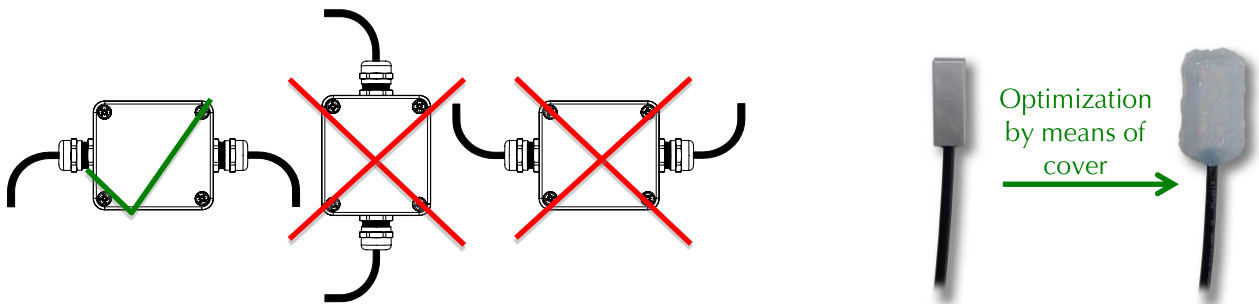
#### Installation Instructions

The sensor element is mounted by gluing the Aluminum block directly to the measurement surface. The surface must be dry, clean and degreased. Cleaning should NOT be done with glass cleaner, as some glass cleaners contain additives to prevent soiling after cleaning and these additives also prevent adhesion. Isopropyl Alcohol or Ethanol is recommended for cleaning. It is also recommended using an extra fixing with silicone or Sikaflex, particularly for module temperature above 75°C. If mounted outdoors, avoid direct exposure to sunlight and rain to the sensor housing (Aluminum block). If necessary, provide protection from the sun and rain.

The through holes used to fix the sensor to a stable and suitable surface shall be accessible when the housing is opened. The tightening torque of the case cover is 180 Ncm.

Note: The module temperature measurement can be optimized by completely covering the sensor element.

The sensor cable needs a cable grip close to the sensor housing.



#### Maintenance

Scope of the regularly check (at least every 2 years): Cleaning, external damage, mechanical fastening, cable laying and any damage to the cable.

Should damage be found that degrades the function or safety, the sensor is to be replaced.

A recalibration is recommended at least every 3 years.

#### User information

The sensor is designed for the measurement of a surface temperature. The warranty is for 1 year from the date of the invoice for the intended use. M&T does not accept any liability for possible losses or damage due to the incorrect usage of the sensor. Liability for consequential damages is excluded.