

Installation Manual

TRANBERG temperature sensor PT100, 3 wire

Heat Trace Accessories

Document properties (TUM7395)

Revision	Comment	Revision date	Approved
0	First issue	12.12.2022	CKR

Installation and operating manual

Technical data

Property	Value
Sensor Type	PT100 IEC 60751, 0,3 (former class B)
Sensor Material	Tip: Stainless steel, Cable: Silicone
Dimensions sensor	Ø6mmx60, length=300mm element
Length Cable	Varies with part number
Temp. range for sensor:	-35°C ... +500°C
Temp. range for cable/splice	-35°C ...+180°C

Product description

The PT-100 element provides good accuracy and excellent stability and repeatability. PT-100 are also relatively immune to electrical noise and are therefore well suited for temperature measurement in industrial environments, especially around motors, generators and other high voltage equipment.

Description	Part No.
PT100 3-wire w/3 meter Ø5mm Silicone cable	50239092
PT100 3-wire w/5 meter Ø5mm Silicone cable	50239093
PT100 3-wire w/10 meter Ø5mm Silicone cable	50239094
PT100 3-wire w/15 meter Ø5mm Silicone cable	50239091
PT100 3-wire w/25 meter Ø5mm Silicone cable	50239095

Mounting and installation

Remove the product from the package and check it for mechanical damage.

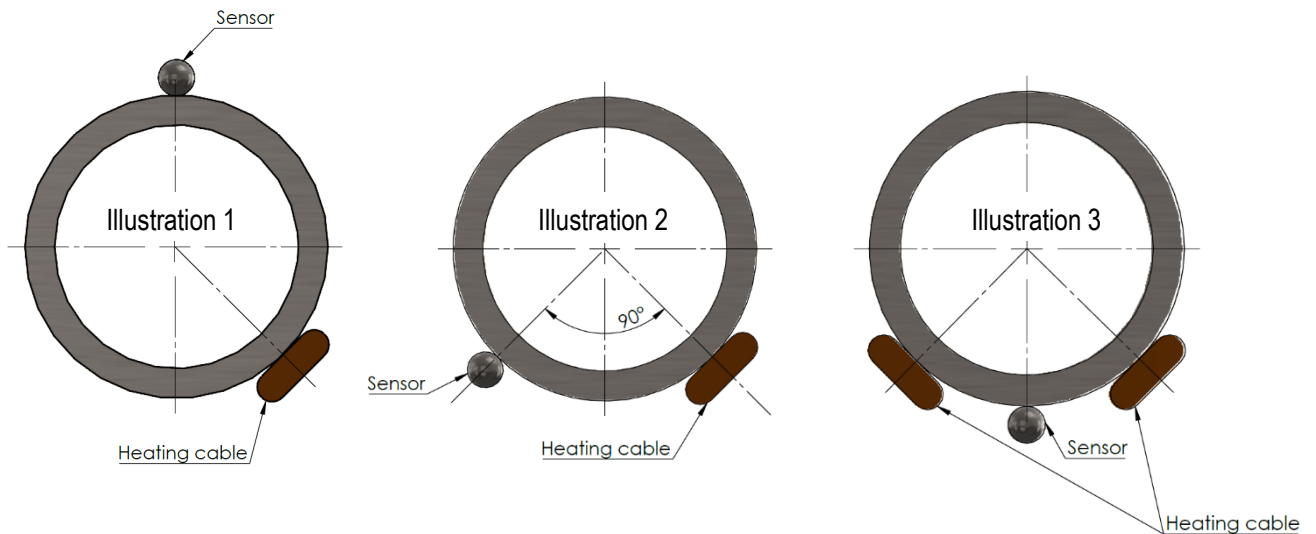
Location of the sensor

The temperature sensor shall always be located according to the engineered specification for the installation according to relevant installation and engineering standards (E.g. IEC EN 60079-14 / IEC EN 60079-30-2).

General recommendations for application.

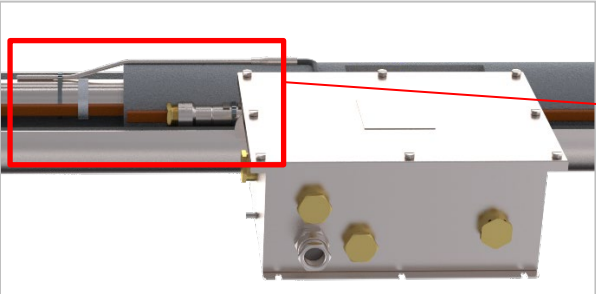
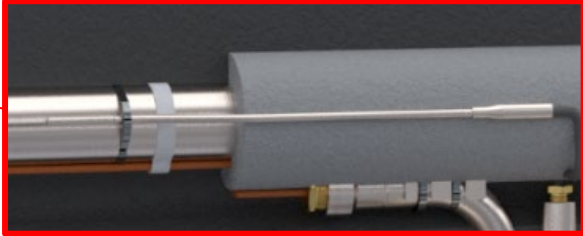
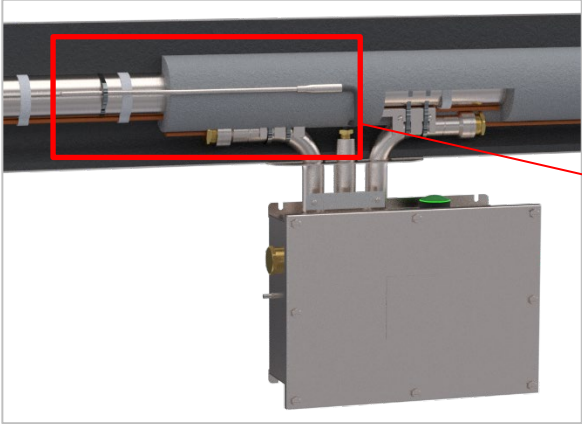
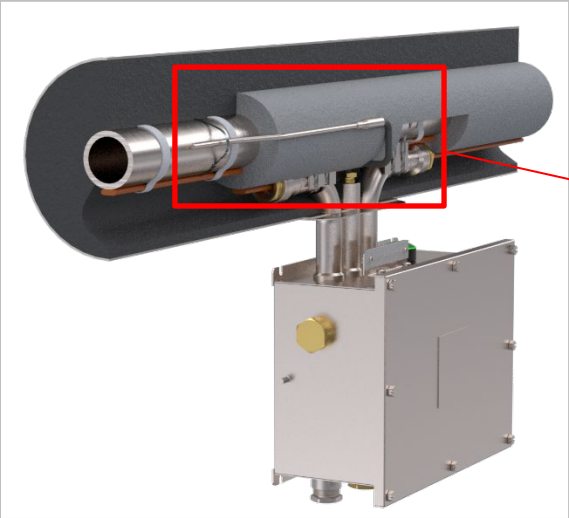
Place the sensor away from valves, flanges, supports, pumps or other heat sinks

- The sensor can be placed at the top of the pipe for thermally sensitive pipe contents (Illustration 1)
- It can be placed on the lower quadrant of the pipe 90° for single heating cable (Illustration 2)
- If there are two or more heating cables the sensor can be placed on the lower quadrant of the pipe between the two cables. (Illustration 3).

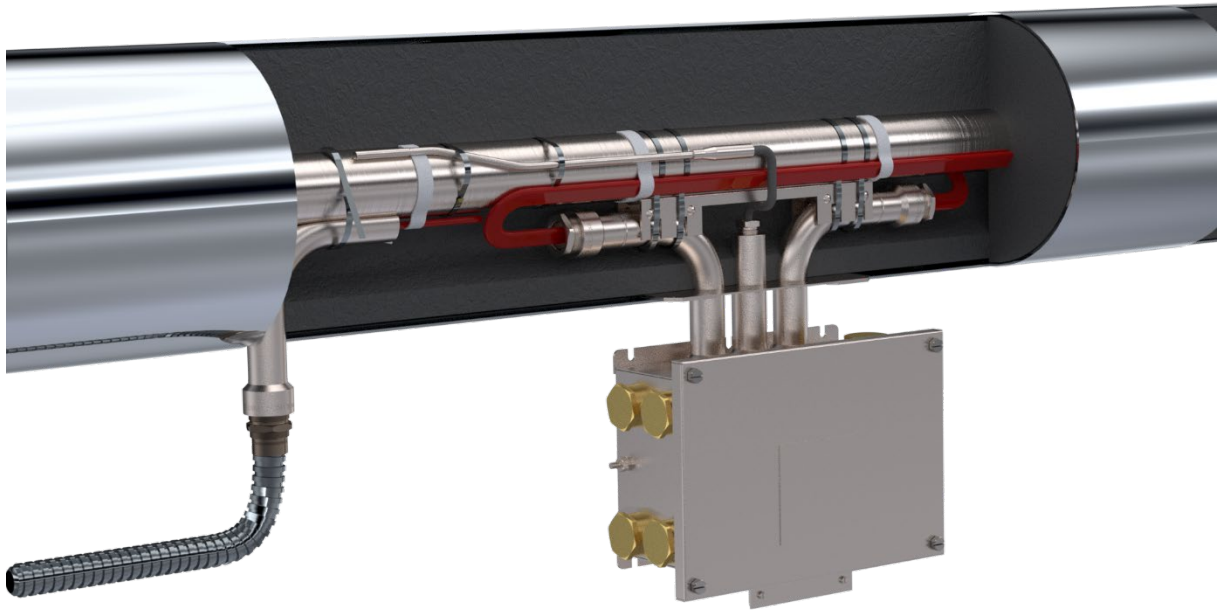


- Make sure the temperature sensor is touching the pipe. Use a pipe strap to fasten the sensor tight to the pipe.
- The long sensor element has a temperature range up to 500°C and can also be used on installations that are exposed to high temperatures. The element can be bent to fit f. ex. a sandwich installation to avoid the potting/splice between the cable and the sensor, to be exposed for high pipe temperatures.
- See illustrations below for more details.

Application example for high temperature lines (Sandwich method)

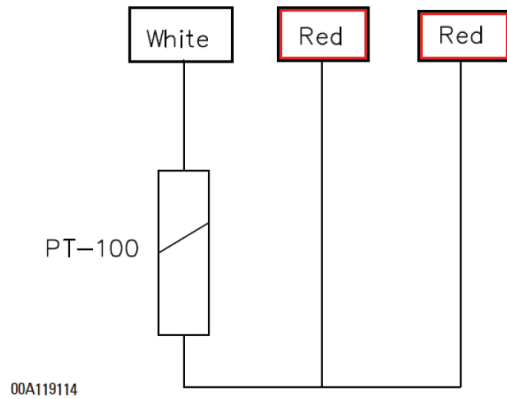


Application example for mounting directly on the pipe.



Electrical connections

PT-100 element wiring diagram



Disposal

- Observe national and local regulations and statutory regulations regarding disposal
- Separate materials when sending it for recycling
- Ensure environmentally friendly disposal of all components
- No component or packaging shall end up in the ocean during any stage of the product's lifetime