

MINERAL INSULATED RESISTANCE THERMOMETER

Type XI-TRP-..-BTW

Sheathed resistance thermometers are made of metal sheathed cable with internal wires (Cu or Ni) are insulated from each other and from the outer sheath with magnesium oxide (MgO) powder. This provides the sensor with high vibration resistance, flexibility as well as resistance to temperature and with good electrical insulation.

These sensors are designed for direct temperature measuring in places with difficult access, as well as in all places, where it is required to use flexible sensors of small diameters, high resistance to vibrations and shock, and with short response time to temperature changes. Due to tight pressing of the insulating layer (MgO) and appropriate structure of the inner wires and the sheath, the sensors can be bent with a minimal radius of curvature of three times the outer diameter of the sheath.

TECHNICAL DATA

Description

- Intrinsically safe for mines MI, gas G and dust D atmospheres
- Single and double RTD
- Mineral insulated construction
- With miniature size plug

Temperature range

-50.. +550°C

Sensing element

1x or 2xPt100 Class A or B, acc. to PN-EN 60751

Sheath

Material	stainless steel 1.4541 (AISI321) (V) stainless steel 1.4401 (AISI316) (Y)
Diameter d [mm]	Ø1.5, Ø2, Ø3
Length L [mm]	custom

Connector

S-013-Pt100-W (miniature size plug, 3-pole)

Multiplicity

Sheath dia.	1 x Pt100*			2 x Pt100*		
	2-wire	3-wire	4-wire	2-wire	3-wire	4-wire
Ø 1.5	✓	✓	✓	✓	X	X
Ø 2.0	✓	✓	✓	✓	X	X
Ø 3.0	✓	✓	✓	✓	✓	X

Remarks

* Pt500, Pt1000, Ni100, Ni1000

** other parameters upon request

ATEX Marking:

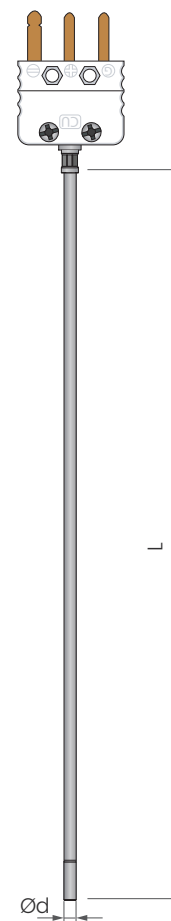
- CE I MI Ex ia I Ma
- CE II 1/2 G Ex ia II C T... Ga/Gb
- CE II 1/2 D Ex ia IIIC T... Da/Db

IECEx Marking:

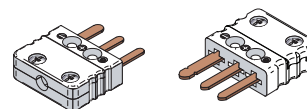
- Ex ia I Ma
- Ex ia IIC T...Ga
- Ex ia IIIC T...Da

EAC Ex Marking:

- PO Ex ia I Ma X
- 0Ex ia IIC T...Ga X
- 0Ex ia IIIC T...Da X



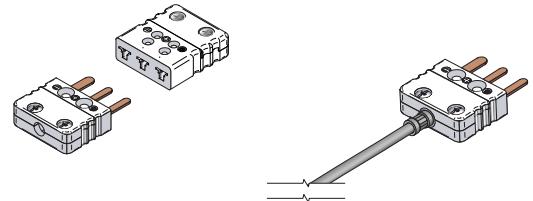
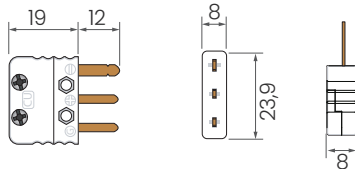
(miniature size plug, 3-pole)



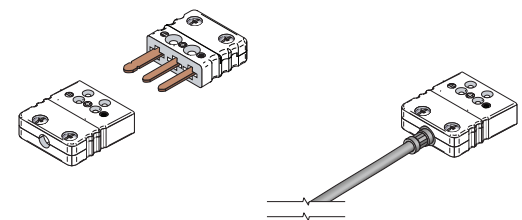
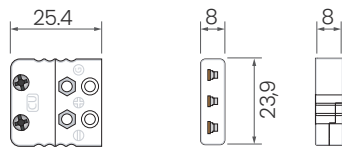
Sheathed resistance thermometer with miniature size plug. Suitable for temperature measurement of liquids, gases and solid bodies. Measuring range from -50°C to +550°C.

Connector

(miniature size plug, 3-pole)



(miniature size socket, 3-pole)



ORDERING CODE

Temperature sensor			XI-TRP-	1	2	3	4	5	6	7
sensing element:	1xPt100, 2xPt100 or other	1x <input type="checkbox"/> 2x <input type="checkbox"/> <input type="checkbox"/>								
version:		BTW								
sheath material:	(1.4541) (1.4401)	V Y								
sheath diameter:	(Ø1.5) (Ø2.0) (Ø3.0)	15 20 30								
RTD class:	A, B, 1/3B or other	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>								
connection line:	3-wire	<input type="checkbox"/>								
length L:	custom	<input type="checkbox"/>								

EXAMPLE: Temperature sensor XI-TRP-1xPt100-BTW-Y30-A-3-500

1 2 3 4 5 6 7

Temperature sensor XI-TRP-1xNi100-BTW-Y-30-B-3-1000

1 2 3 4 5 6 7