

CABLE RESISTANCE THERMOMETER

Type XI-TOPE50244

Resistance thermometer with hose-clip. Temperature measurement on pipelines and other cylindrical elements. Resistance thermometers of this series are designed for mounting on pipelines and other cylindrical elements.

The sensor consists of thermometric resistor, protection tube with hose-clip and cable.

Number of sensors, accuracy, cable insulation and method of connection can be selected individually for the respective application.

TECHNICAL DATA

Description

- Intrinsically safe for mines MI, gas G and dust D atmospheres
- Single and double RTD
- Easy montage with hose-clip

Design temperature range

-10.. +105°C	with cable in PVC
-50.. +180°C	with cable in silicone rubber
-50.. +260°C	with cable in teflon® PFA
-50.. +400°C	with cable in fiberglass

Sensing element

Ix or 2xPt100	Class A or B, acc. to PN-EN 60751
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Hose-clip

Material	nickel plated brass
Diameter [mm]	max. Ø 100 mm

Protection tube

Material	nickel plated brass
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Connection cable

JJ	PVC / PVC (up to +105°C)
SLSL	silicone / silicone (up to +180°C)
TSL	teflon® / silicone (up to +180°C)
TPSL	teflon® / Cu braid / silicone (up to +180°C)
TT	teflon® PFA / teflon® PFA (up to +260°C)
TP	teflon® PFA / steel braid (up to +260°C)
TCuT	teflon® PFA / Cu braid / teflon® PFA (up to +260°C)
GLGLP	fiberglass / fiberglass / steel braid (up to +400°C)

Remarks

* Pt500, Pt1000, Ni100, Ni1000

** acc. to the specification

ATEX Marking:

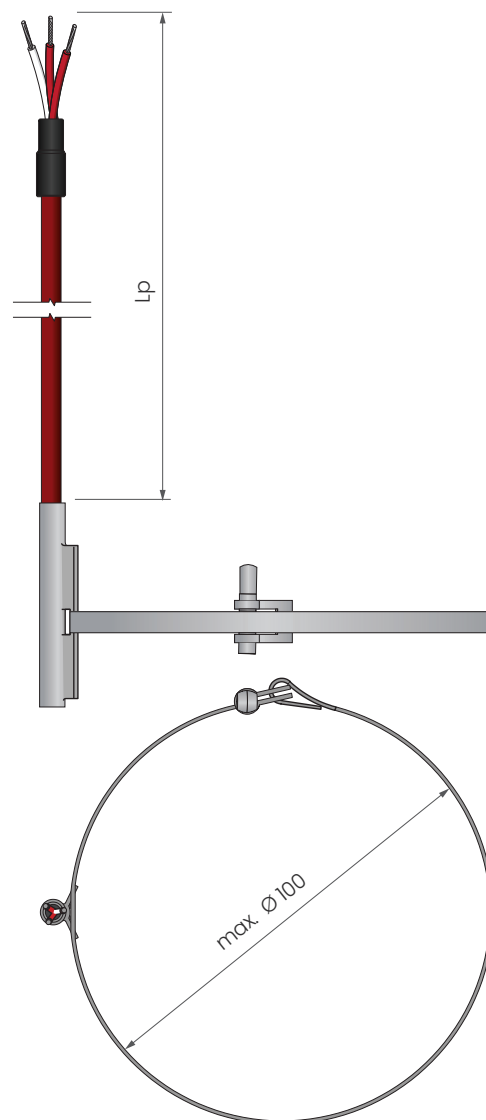
- CE I MI Ex ia I Ma
- CE II 1/2 G Ex ia II C T... Ga/Gb
- CE II 1/2 D Ex ia III C T... Da/Db

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



List of available connection cables.

Connection cable	cross	diameter	code
up to +105°C. 			
PVC / PVC	4 x 0.22 mm ²	Ø4.4	JJ-4x0.22mm ²
up to +180°C. 			
silicone / silicone	3 x 0.22 mm ²	Ø3.4	SLSL-3x0.22mm ²
up to +180°C. 			
teflon® FEP / silicone	2 x 0.22 mm ² 3 x 0.22 mm ² 4 x 0.22 mm ² 6 x 0.22 mm ² 8 x 0.22 mm ²	Ø4.2 Ø3.8 Ø3.8 Ø4.4 Ø5.0	TSL-2x0.22mm ² TSL-3x0.22mm ² TSL-4x0.22mm ² TSL-6x0.22mm ² TSL-8x0.22mm ²
up to +180°C. 			
teflon® FEP / Cu braid / silicone	3 x 0.22 mm ² 4 x 0.22 mm ² 6 x 0.22 mm ² 8 x 0.22 mm ²	Ø3.9 Ø4.0 Ø4.2 Ø4.4	TPSL-3x0.22mm ² TPSL-4x0.22mm ² TPSL-6x0.22mm ² TPSL-8x0.22mm ²

Connection cable	cross	diameter	code
up to +260°C. 			
teflon® PFA / teflon® PFA	2 x 0.22 mm ² 3 x 0.22 mm ² 4 x 0.22 mm ²	Ø2.5 Ø2.6 Ø2.6	TT-2x0.22mm ² TT-3x0.22mm ² TT-4x0.22mm ²
up to +260°C. 			
teflon® PFA / steel braid	3 x 0.05 mm ² 3 x 0.50 mm ² 4 x 0.05 mm ² 4 x 0.22 mm ²	Ø1.7 Ø3.5 Ø2.0 Ø3.6	TP-3x0.05mm ² TP-3x0.50mm ² TP-4x0.05mm ² TP-4x0.22mm ²
up to +260°C. 			
teflon® PFA / Cu braid / teflon® PFA	3 x 0.22 mm ² 4 x 0.22 mm ² 6 x 0.22 mm ² 8 x 0.22 mm ² 6 x 0.05 mm ² 8 x 0.05 mm ²	Ø3.1 Ø3.9 Ø4.1 Ø4.6 Ø2.6 Ø3.0	TCuT-3x0.22 mm ² TCuT-4x0.22 mm ² TCuT-6x0.22 mm ² TCuT-8x0.22 mm ² TCuT-6x0.05 mm ² TCuT-8x0.05 mm ²
up to +400°C. 			
fiberglass / fiberglass / steel braid	4 x 0.22 mm ² 6 x 0.22 mm ²	Ø3.8 Ø5.0	GLGLP-4x0.22 mm ² GLGLP-6x0.22 mm ²

ORDERING CODE

Temperature sensor	XI - TOPE50244 -				1	2	3	4	5
sensing element:	1xPt100 <input type="checkbox"/>	2xPt100 <input type="checkbox"/>	1xPt500 <input type="checkbox"/>	1xPt1000 <input type="checkbox"/>					
cable length Lp [mm]:	custom <input type="checkbox"/>								
RTD class:	A, B <input type="checkbox"/>								
connection line:	2-, 3-, 4-wire for 1xP t100; 2-, 3 -wire for 2x Pt100				1x <input type="checkbox"/>	2x <input type="checkbox"/>			
cable insulation	(see specification) <input type="checkbox"/>								

EXAMPLE: Temperature sensor XI-TOPE50244-1xPt100-2500-A-4-TSL

1 2 3 4 5

Temperature sensor XI-TOPE50244-1xPt100-1000-A-3-GLGLP

1 2 3 4 5