

CABLE RESISTANCE THERMOMETER

Type XI-TOPE414

Resistance thermometers of this series are designed for screw-fitting directly into the process, mainly in vessels and pipelines. These thermometers are suitable for liquid and gaseous media under moderate mechanical load and normal chemical conditions.

The sensor consists of thermometric resistor, threaded process connection and cable.

TECHNICAL DATA

Description

- Intrinsicly safe for mines MI, gas G and dust D atmospheres
- Single and double RTD
- Angle version (XI-TOPE409) and straight (XI-TOPE410)

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

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

Material	stainless steel 1.4541**
Thread G	M8x1, M10x1, M12x1, G1/4", G1/2"***

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

** 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

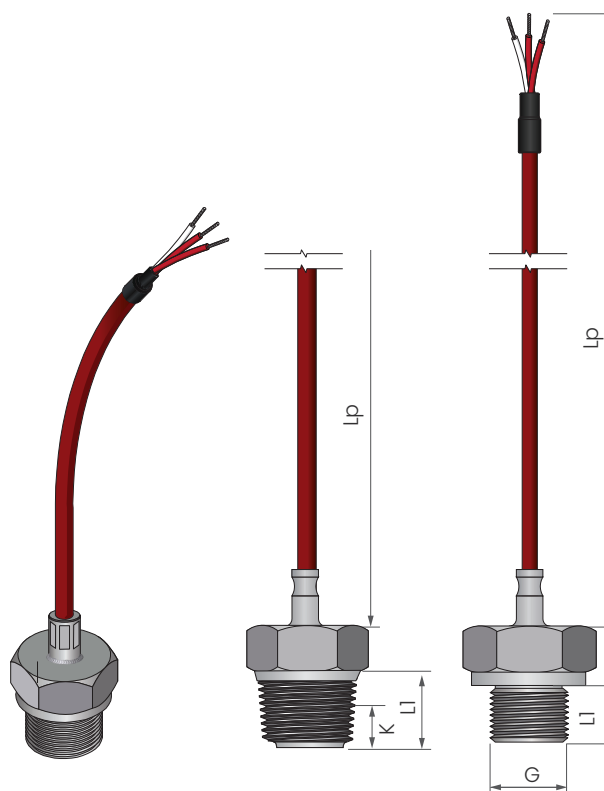
Ex ia IIIC T ...Da

EAC Ex Marking:

PO Ex ia I Ma X

OEx ia IIC T...Ga X

OEx ia IIIC T...Da X



Thread G	Length L1 [mm]
M8x1	10
M10x1	10
M12x1	10
G 1/4"	12
G 1/2"	20



Handtight engagement

thread 1/2"NPT
thread 3/4"NPT

Dimension K

8.1 mm
8.6 mm

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 - TOPE414 -					
sensing element:	<input type="checkbox"/> 1xPt100 <input type="checkbox"/> 2xPt100	<input type="checkbox"/> 1xPt500 <input type="checkbox"/> 1xPt1000 <input type="checkbox"/> or other*	1	2	3	4	5	6
cable length Lp [mm]:	custom	<input type="checkbox"/>						
RTD class:	A, B	<input type="checkbox"/>						
connection line:	2, 3, 4 wire for 1xPt100; 2, 3wire for 2xPt100	<input type="checkbox"/> 1x <input type="checkbox"/> 2x						
thread:	<input type="checkbox"/> M10x1 <input type="checkbox"/> M12x1 <input type="checkbox"/> M20 x1.5 <input type="checkbox"/> G½ <input type="checkbox"/> G¼ <input type="checkbox"/> or other*							
cable insulation	(see specification)	<input type="checkbox"/>						

EXAMPLE: Temperature sensor XI-TOPE414-1xPt100-1500-A-4-M10x1-TT

1 2 3 4 5 6

Temperature sensor XI-TOPE414-1xPt100-2000-A-4-G1/2-GLGLP

1 2 3 4 5 6