

CABLE RESISTANCE THERMOMETER

Type XI-TOPE409, XI-TOPE410

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.

Sensor consists of thermometric resistor, protection tube made out of stainless steel, threaded process connection welded to thermowell and connection cable.

TECHNICAL DATA

Description

- Intrinsically safe for mines M1, 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

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

Material	stainless steel 1.4541**
Diameter [mm]	Ø3, Ø4, Ø5, Ø6, Ø8, Ø9**
Length L [mm]	custom

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:

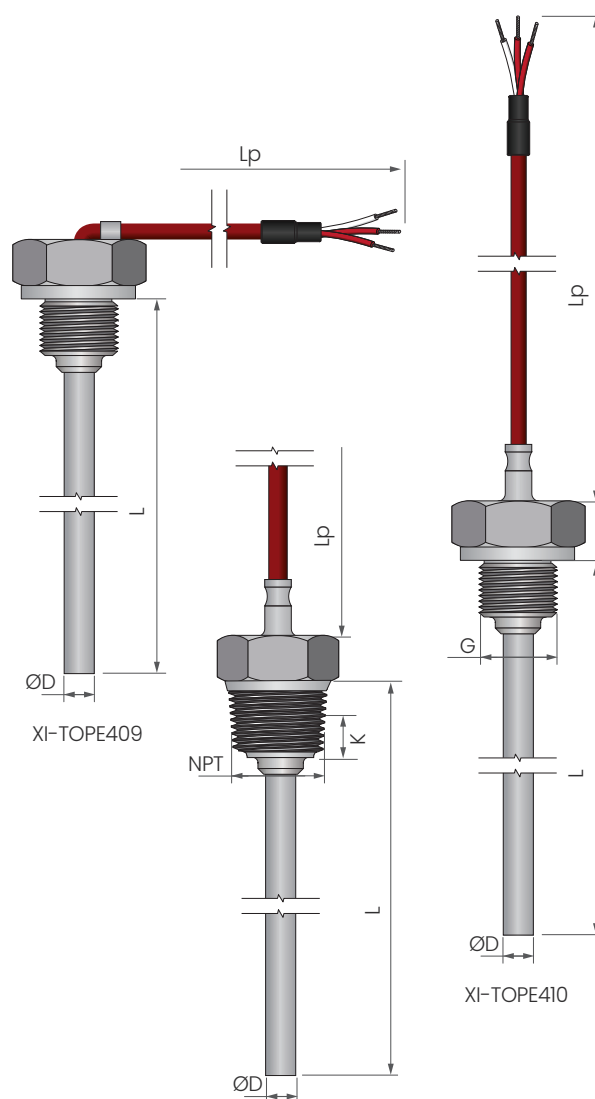
- CE I M1 Ex ia I Ma
- CE II 1/2 G Ex ia II C T... Ga/Gb
- CE II 1/2 D Ex ia IIIC T... Da/Db

IECEx Marking:

- Ex ia I Ma
- Ex ia II C T...Ga
- Ex ia IIIC T...Da

EAC Ex Marking:

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











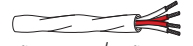



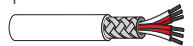



Handtight engagement

thread 1/2"NPT	8.1 mm
thread 3/4"NPT	8.6 mm

Dimension K

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 - TOPE4								
version:	(angled) 09 (straight) 10	1	2	3	4	5	6	7	8	9
sensing element:	1xPt100 <input type="checkbox"/> 1xPt500 <input type="checkbox"/> 2xPt100 <input type="checkbox"/> 1xPt1000 or other* <input type="checkbox"/>									
diameter [mm]:	3, 4, 5, 6 or other** <input type="checkbox"/>									
length L [mm]:	custom <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 1xPt100; 1x <input type="checkbox"/> 2, 3 wire for 2xPt100 2x <input type="checkbox"/>									
thread:	M10x1 <input type="checkbox"/> M12x1 <input type="checkbox"/> M14 x1.5 <input type="checkbox"/> G1/8 <input type="checkbox"/> G½ <input type="checkbox"/> or other* <input type="checkbox"/>									
cable insulation	(see specification) <input type="checkbox"/>									

EXAMPLE: Temperature sensor XI-TOPE410-1xPt100-6-100-2500-A-4-G1/4-GLGLP

1 2 3 4 5 6 7 8 9

Temperature sensor XI-TOPE409-1xPt100-4-100-1000-A-3-M10x1-TT

1 2 3 4 5 6 7 8 9