

CABLE RESISTANCE THERMOMETER

Type XI-TOPE416

Resistance thermometers XI-TOPE416 are designed for assembling directly on to machine parts or other construction elements. Assembly screw hole in thermwell allows to mount sensor with standard fasteners e.g. bolts and rivets.

The sensor consists of thermometric resistor, protection tube with hole for fixing and cable.

Diameter of hole, 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

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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Protection tube

Material	stainless steel 1.4541**
Hole d [mm]	Ø4.2, Ø6.2 or other**

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 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

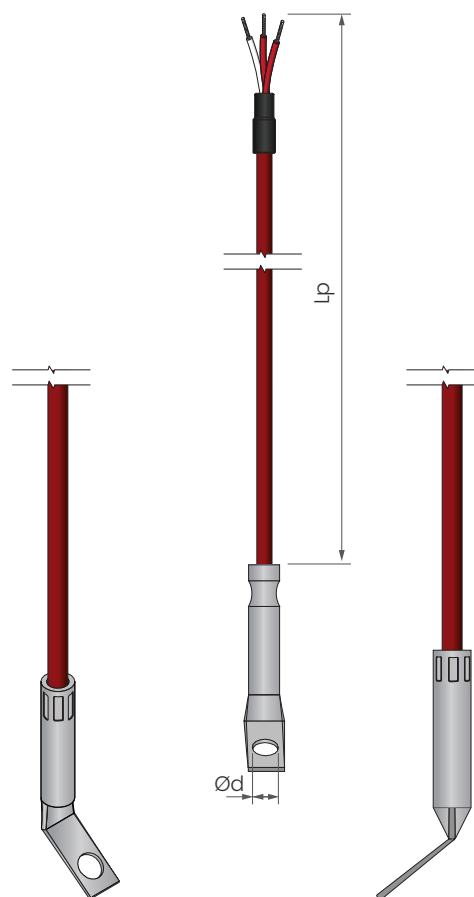
Ex ia IIIC T ...Da

EAC Ex Marking:









PO Ex ia I Ma X

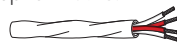







0Ex ia IIC T..Ga X

0Ex ia IIIC T..Da X



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-TOPE416 -		1	2	3	4	5	6
sensing element:	1xPt100 <input type="checkbox"/> 2xPt100 <input type="checkbox"/>	1xPt500 <input type="checkbox"/> 1xPt1000 <input type="checkbox"/> or other* <input type="checkbox"/>						
Diameter d:	4.2, 6.2 or other**	<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; 2, 3 wire for 2xPt100	1x <input type="checkbox"/> 2x <input type="checkbox"/>						
cable insulation	(see specification)	<input type="checkbox"/>						

EXAMPLE: Temperature sensor XI-TOPE416-1xPt100-4.2-1500-A-4-TP

1 2 3 4 5 6

Temperature sensor XI-TOPE416-1xPt100-6.2-2000-A-4-GLGLP

1 2 3 4 5 6