

CABLE RESISTANCE THERMOMETER

Type XI-TOPE310, XI-TOPE311, XI-TOPE312

Resistance thermometers XI-TOPE310, XI-TOPE311, XI-TOPE312 are designed for screw-fitting directly into machine body or parts. Adjustable spring force of sensor provides optimum measurement conditions in environment where vibrations appears.

Sensor consists of thermometric resistor, protection tube made out of stainless steel, connection cable, adjustable bayonet cap with spring. Sensor can be additional equipped with bayonet adaptor.

TECHNICAL DATA

Description

- Intrinsically safe for mines MI, gas G and dust D atmospheres
- Single and double RTD
- with protection tube dia. Ø5 mm (XI-TOPE310), Ø6 (XI-TOPE311), Ø8 mm (XI-TOPE312)

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
---------------	-----------------------------------

Thermowell

Material	stainless steel 1.4541**
Diameter [mm]	Ø5, Ø6, Ø8 **
Length L [mm]	25 mm (standard) or other

Bayonet cap

Diameter d [mm]

XI-TOPE310**	Ø11
XI-TOPE311	Ø12
XI-TOPE312	Ø14,5

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

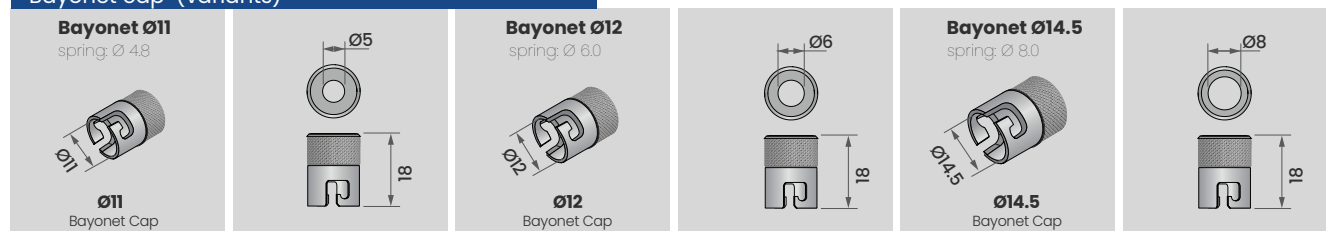
IECEx Marking:

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

EAC Ex Marking:

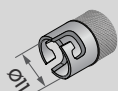
- PO Ex ia I Ma X
- 0Ex ia IIC T...Ga X
- 0Ex ia IIIC T...Da X

Bayonet cap (variants)

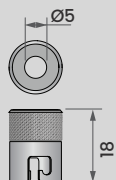


Bayonet adaptor (accessorie)

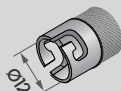
Bayonet Ø11
spring: Ø 4.8



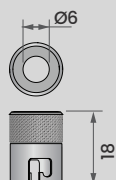
Ø11
Bayonet Cap



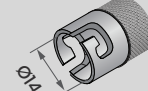
Bayonet Ø12
spring: Ø 6.0



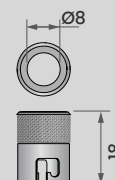
Ø12
Bayonet Cap


















Bayonet Ø14.5
spring: Ø 8.0

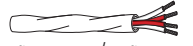




















Ø14.5
Bayonet Cap



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 - TOPE31		1	2	3	4	5	6	7	8
version/dia. of the protection tube:	(Ø5)	0								
	(Ø6)	1								
	(Ø8)	2								
sensing element:	1xPt100 <input type="checkbox"/>	1xPt500 <input type="checkbox"/>								
	2xPt100 <input type="checkbox"/>	1xPt1000 <input type="checkbox"/>								
		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"/>								
cable insulation	(see specification)	<input type="checkbox"/>								
process 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"/>									

EXAMPLE: Temperature sensor XI-TOPE311-1xPt100-25-2500-A-4-GLGLP

1 2 3 4 5 6 7

Temperature sensor XI-TOPE312-1xPt100-25-1000-B-2-GLGLP-M14x1.5

1 2 3 4 5 6 7 8