

### CABLE THERMOCOUPLE

#### Type XI-TTE550

Thermocouple with protection tube and moveable screw. Surface temperature measurement of bearings, blocks, parts of machinery or other construction elements. Temperature range of the sensor depends on insulation of connection cable.

The sensor consists of thermocouple cable, protection tube with moveable threaded process connection.

Insertion length, process connection, thermocouple type, accuracy, cable insulation 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 TC

#### 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 2x NiCr-NiAl	<b>K</b>	acc. to EN 60584-2 class 1, 2
1x or 2x NiCrSi-NiSi	<b>N</b>	acc. to EN 60584-2 class 1, 2
1x or 2x Fe-CuNi	<b>J</b>	acc. to EN 60584-2 class 1, 2
1x or 2x NiCr-CuNi	<b>E</b>	acc. to EN 60584-2 class 1, 2
1x or 2x Cu-CuNi	<b>T</b>	acc. to EN 60584-2 class 1, 2

#### Protection tube

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

#### Connection cable

<b>JJ</b>	PVC / PVC (up to +105°C)
<b>SLSL</b>	silicone / silicone (up to +180°C)
<b>TT</b>	teflon® PFA / teflon® PFA (up to +260°C)
<b>TCuT</b>	teflon® FEP / Cu braid / teflon® FEP (up to +205°C)
<b>GLGLP</b>	fiberglass / fiberglass / steel braid (up to +400°C)

#### Remarks

\* other parameters upon request

#### ATEX Marking:

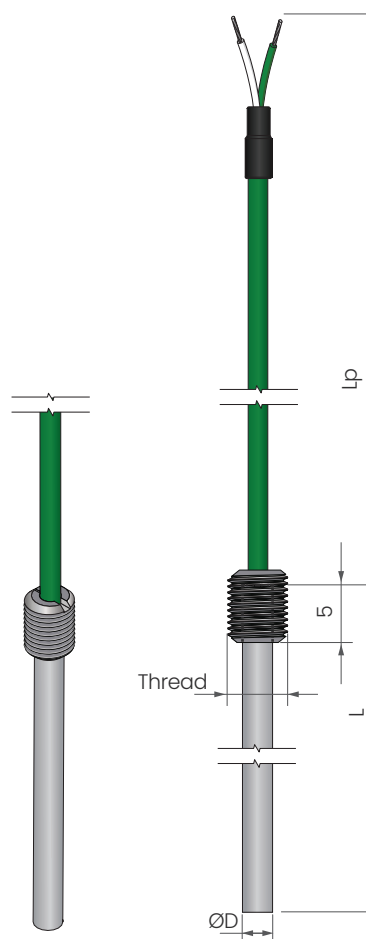
- CE MI Ex ia I Ma
- CE II 1/2 G Ex ia II C T... Ga/Gb
- CE II 1/2 D Ex ia III C T... Da/Db

#### IECEx Marking:

- Ex ia I Ma
- Ex ia IIC T ...Ga
- Ex ia III C T ...Da





#### EAC Ex Marking:



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



XI-TOPE550

Temperature range of the sensor depends on insulation of connection cable.

Connection cable	cross	diameter	code
up to +105°C. 	2 x 0.22 mm <sup>2</sup>	Ø4.0	JJ-2x0.22mm <sup>2</sup>
PVC / PVC		Ø5.0	JJ-2x0.44mm <sup>2</sup>
		Ø5.0	JJ-4x0.50mm <sup>2</sup>
		Ø6.0	JJ-2x0.75mm <sup>2</sup>
up to +180°C. 	2 x 0.22 mm <sup>2</sup>	Ø3.4	TSL-2x0.22mm <sup>2</sup>
silicone / silicone		Ø4.5	TSL-2x0.75mm <sup>2</sup>
up to +400°C. 	2 x 0.22 mm <sup>2</sup>	Ø3.6	GLGLP-2x0.22 mm <sup>2</sup>
fiberglass / fiberglass / steel braid			GLGLP-2x0.50 mm <sup>2</sup>
	2 x 0.50 mm <sup>2</sup>	3x4	GLGLP-2x0.50 mm <sup>2</sup>
	2 x 0.50 mm <sup>2</sup>	4x5	GLGLP-2x0.75 mm <sup>2</sup>

Connection cable	cross	diameter	code	
up to +260°C. 	2 x 0.22 mm <sup>2</sup>	1.9x2.3	TT-2x0.22mm <sup>2</sup>	
teflon® PFA / teflon® PFA		2 x 0.50 mm <sup>2</sup>	1.7x3.0	TT-2x0.50mm <sup>2</sup>
		2 x 0.75 mm <sup>2</sup>	2.4x4.2	TT-2x0.75mm <sup>2</sup>
up to +205°C. 	2 x 0.22 mm <sup>2</sup>	Ø2.9	TCuT-2x0.22 mm <sup>2</sup>	
teflon® FEP/Cu braid / teflon® FEP		4 x 0.22 mm <sup>2</sup>	Ø3.6	TCuT-4x0.22 mm <sup>2</sup>
		2 x 0.50 mm <sup>2</sup>	Ø3.8	TCuT-2x0.50 mm <sup>2</sup>
		4 x 0.50 mm <sup>2</sup>	Ø4.6	TCuT-4x0.50 mm <sup>2</sup>
		6 x 0.50 mm <sup>2</sup>	Ø5.1	TCuT-6x0.50 mm <sup>2</sup>
		4 x 0.75 mm <sup>2</sup>	Ø5.1	TCuT-4x0.75 mm <sup>2</sup>
	6 x 0.75 mm <sup>2</sup>	Ø6.3	TCuT-6x0.75 mm <sup>2</sup>	

Temperature sensor		XI - TTE550 -						
sensing element:	Type K <input type="checkbox"/> <b>K</b> Type J <input type="checkbox"/> <b>J</b> Type N <input type="checkbox"/> <b>N</b> Type E <input type="checkbox"/> <b>E</b> Type T <input type="checkbox"/> <b>T</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
diameter [mm]:	3, 4, 5, 6, 8 or other*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
length L [mm]:	custom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
cable length Lp [mm]:	custom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TC class:	1, 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
thread:	M8, M10x1, M12x1, M12 x1.5 or other*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
cable insulation	(see specification)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**EXAMPLE:** Temperature sensor XI-TTE550-K-3-30-2500-1-M8x1-TT  
1 2 3 4 5 6 7

Temperature sensor XI-TTE550-K-5-50-1000-1-M10x1-TCuT  
1 2 3 4 5 6 7