

CABLE THERMOCOUPLE

Type XI-TTE416

Thermocouple with protection tube and bore for fixing a sensor by screw. Surface temperature measurement of 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 and protection tube with hole for fixing.

Diameter of hole, 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	K	acc. to EN 60584-2 class 1, 2
1x or 2x NiCrSi-NiSi	N	acc. to EN 60584-2 class 1, 2
1x or 2x Fe-CuNi	J	acc. to EN 60584-2 class 1, 2
1x or 2x NiCr-CuNi	E	acc. to EN 60584-2 class 1, 2
1x or 2x Cu-CuNi	T	acc. to EN 60584-2 class 1, 2

Protection tube

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

Thermocouple cable

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

Remarks

*other parameters upon request

ATEX Marking:

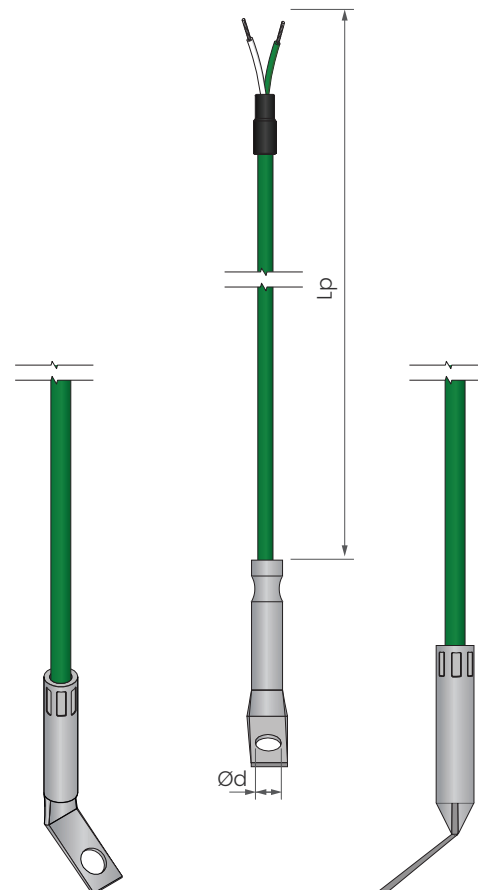
- CE MI Ex ia I Ma
- CE II 1/2 G Ex ia II C T... Ga/Gb
- CE II 1/2 D Ex ia III C T... Da/Db

IECEx Marking:

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

EAC Ex Marking:

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



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

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

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

ORDERING CODE

Temperature sensor	XI - TTE416 - - - - - 				
sensing element:	Type K K Type J J Type N N Type E E Type T T	 	 	 	
hole diameter d:	4.2, 6.2 or other*	<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"/>
TC class:	1, 2	<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"/>

EXAMPLE: Temperature sensor XI-TTE416-K-4.2-1500-1-TCuT

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Temperature sensor XI-TTE416-J-6.2-2000-1-GLGLP

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