

| THERMOCOUPLE

Type XI-TT..P, XI-APTT..P

The sensor consists of an exchangeable measuring insert, outer protective tube (thermowell) and aluminum connection head where mounting a temperature transmitter with 4-20 mA/HART® output signal is possible.

The measuring insert represents the replaceable element of the complete sensor which reduces time and costs of maintenance of the measuring apparatus installed in the object. Spring fixation of the measuring insert provides perfect pressure to the bottom of the protecting tube, reduces time of reaction to changes of temperature and increases accuracy of measurement as well as reduces natural vibration thus mechanical and electrical defects can be avoided.

TECHNICAL DATA

Description

- intrinsically safe for mines MI, gas G and dust D atmospheres
- single and double TC
- exchangeable mineral insulated measuring insert
- connection head types: XE-DANA (**G1**); XE-DANAW (**G2**); XE-DAND (**G5**); XE-DANDW (**G6**); XE-BE (**E1**); XE-BED (**E2**); IP65;
- ATEX II 2 GD (see technical information)
- welded thermowell
- cable gland ATEX I MI, II GD, IP65; (cable dia. 5..10mm)*
- output signal: TC or 4-20mA (option)

Design temperature range

- 40 .. +800°C (K) for NiCr-NiAl (K) **K**
- 40 .. +700°C (J) for Fe-CuNi (J) **J**

Sensing element

- 1x or 2xNiCr-NiAl (K) acc. to EN 60584-2 class 1, 2
- 1x or 2xFe-CuNi (J) acc. to EN 60584-2 class 1, 2

Thermowell

- Material steel 1.4541* or heat resistant 1.4841
- Diameter D (mat. 1.4541) Ø9, Ø10, Ø11, Ø12, Ø15 [mm] or other*
- Diameter D (mat. 1.4841) Ø15 [mm]
- Length L [mm] 500, 710, 1000, 1400, 2000 or other*

Temperature transmitter (option)

- PR5334B3B, PR5335D (HART®)
- FlexTop2212, FlexTop2222 (HART®)

Remarks

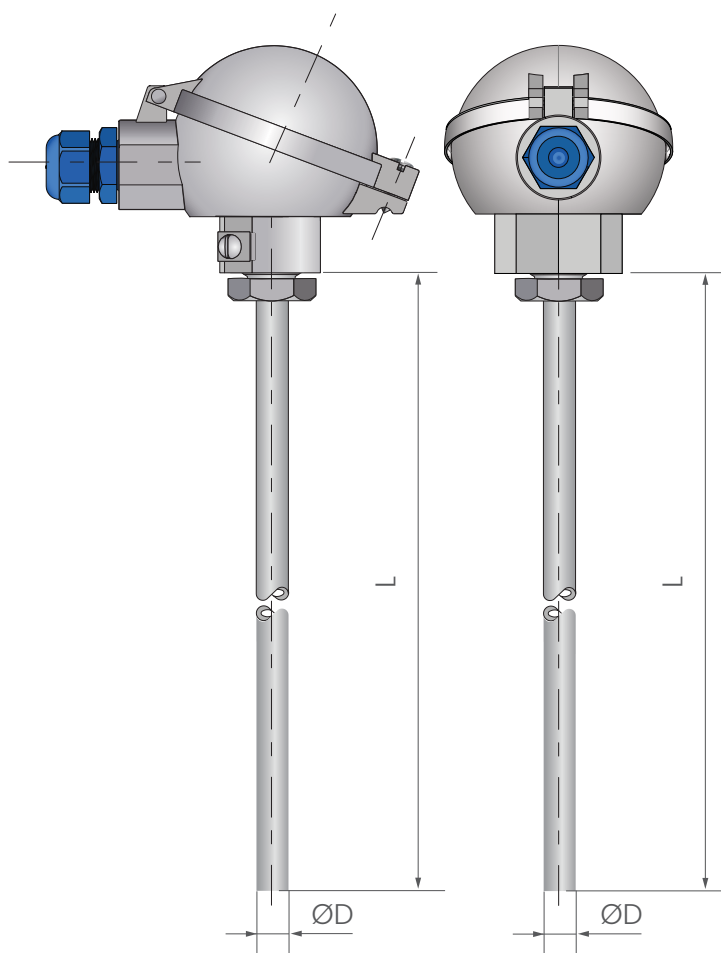
- *other parameters on request
- **depends on thermowell material

ATEX Marking:

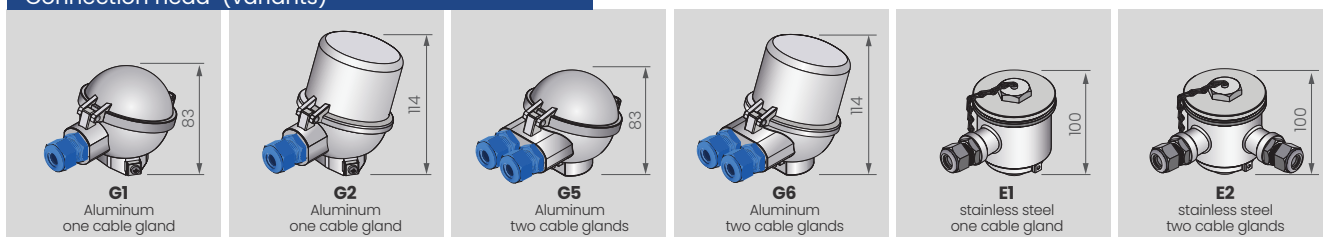
- CE** I MI Ex ia I Ma
- CE** II 1/2 G Ex ia II C T... Ga/Gb
- CE** II 1/2 D Ex ia IIIC T... Da/Db

EAC Ex Marking:

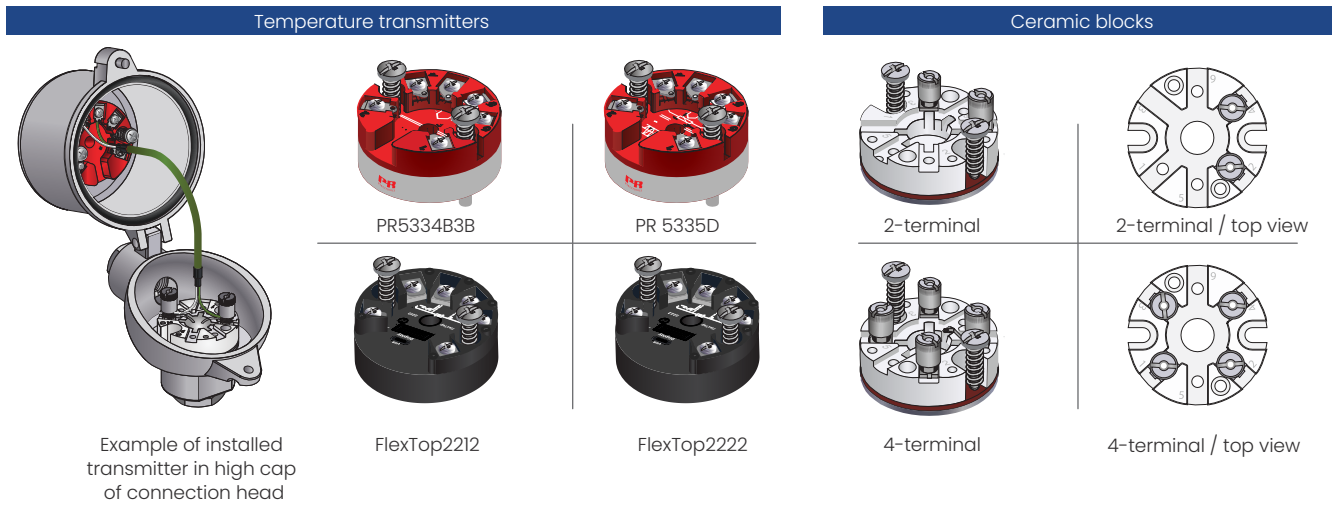
- PO Ex ia I Ma X
- 0Ex ia IIC T..Ga X
- 0Ex ia IIIC T..Da X



Connection head (variants)



Temperature transmitter can be mounted inside a connection head of the sensor. There are two mounting options: directly on the measuring insert or in a high cap of the head. Advantage of the second solution is an easy replacement of the standard insert with a terminal block without need to dismantle the transmitter, which significantly reduces a time and cost of servicing the sensor and protects the connecting wires from damage. At the customer's request, it is possible to mount two transmitters. Temperature transmitter should be protected from temperatures over +85°C.



ORDERING CODE

Temperature sensor		XI -	1	2	TT	3	P	4	5	6	7	8	9	10
without transmitter:	without mark													
with transmitter:	AP													
with two transmitters:	2AP													
single:	without mark													
double:	2													
thermocouple Fe-CuNi	J													
thermocouple NiCr-NiAl	K													
connection head type:	G1, G2, G 5, G6, E1, E2													
length L [mm]:	500, 710, 1000, 1400, 2000 or other*													
diameter d [mm]:	9, 10, 11, 12, 15 or other*													
TC Class	class 1 class 2													
measuring range for transmitter output 4-20 mA	(...)°C													
transmitter type	see specification													
diameter of supply cable (for cable other than)	5...10mm (...)													

EXAMPLE Temperature sensor XI-TTKP-G1-710-12-1

3 4 5 6 7

Temperature sensor XI-APTTKP-G2-1000-14-1-(0-600)°C-PR5334B3B

2 3 4 5 6 7 8 9