

THERMOCOUPLE

Type XD-TT..BT, XD-APTT..BT

The sensor consists of an exchangeable measuring insert, drilled thermowell, neck 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

- flameproof for mines M2, gas G and dust D atmospheres
- single and double TC
- exchangeable mineral insulated measuring insert
- connection head types: XD-AD (**GW1, GW2**); XD-ADwin (**GW3, GW4**); XD-SD (**S1, S2**); IP65, ATEX II 2 GD (see technical information)
- thermowell of pressure with thread
- cable gland ATEX I M2, II GD, IP65; (cable dia. 3.8mm)*
- output signal: TC or 4-20mA (option)
- local display LPI-02 (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 | 1.4541, 1.4571 or other* |
| Diameter D [mm] | custom |
| Length L [mm] | custom |

Temperature transmitter (option)

- PR5334A3B, PR5335A (HART®),
FlexTop2202, FlexTop2212, FlexTop2222 (HART®)

Remarks

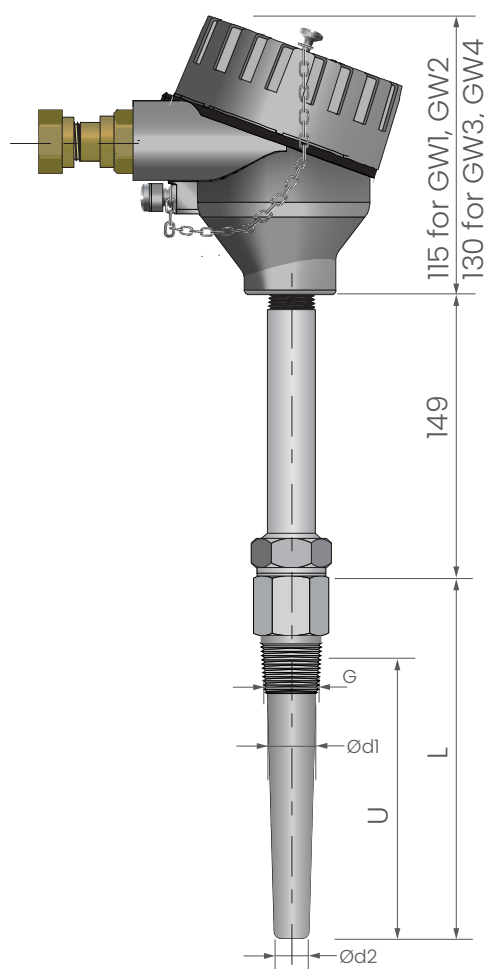
- * other parameters on request
- * local display LPI-02 (see technical information)

ATEX Marking:

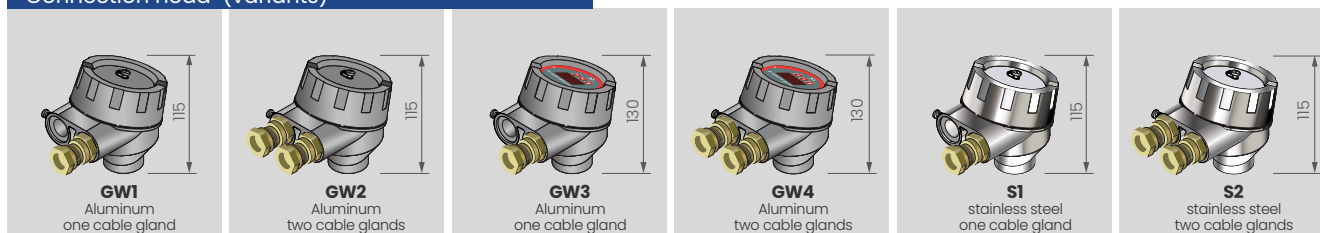
- CE** I M2 Ex db I Mb
CE II 1/2 G Ex db II C T... Ga/Gb
CE II 1/2 D Ex ta/tb IIIC T... Da/Db

EAC Ex Marking:

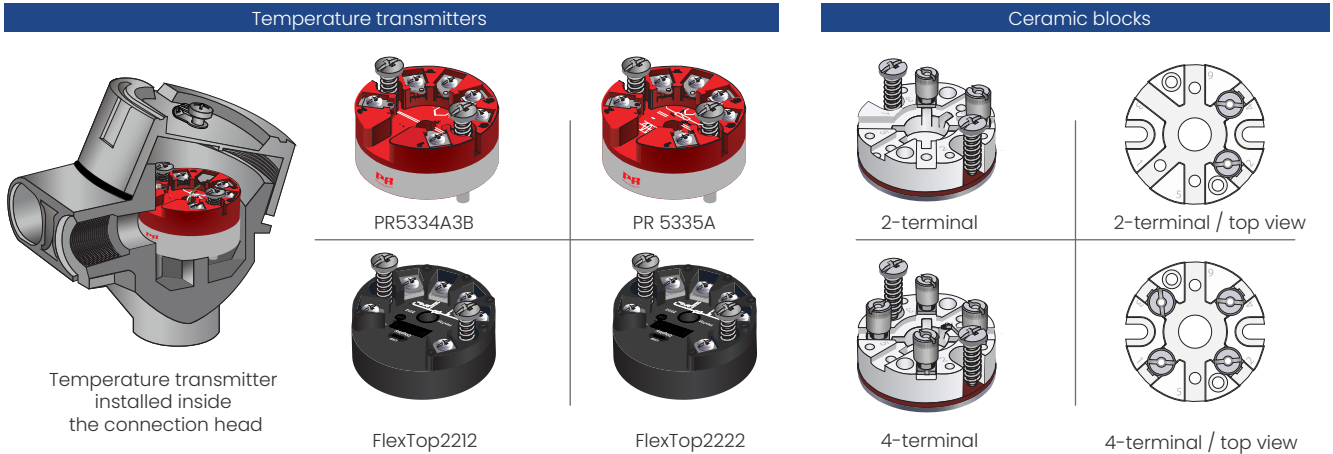
- PB Ex d I Mb X
 Ga/Gb Ex d IIC T.X
 Ex ta/tb IIIC T..Da/Db X



Connection head (variants)



A transmitter can be built upon the measuring insert. In this case, the transmitter replaces the terminal block and is directly attached to the terminal plate of the measuring insert. The temperature transmitter should be protected from temperatures over +85 °C.



ORDERING CODE

Temperature sensor		1	2	3	4	5	6	7	8	9	10	11
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:	GW1, GW 2, GW 3, GW4, S1, S2											
l ength U/d 1/d2 [mm]	250/20/16, 400/16 or other*											
thermowell process thread:	½NP T, ¼NP T or other*											
thermowell material:	1.4541, 1.45 71 or oth er*											
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)	3...8mm (...)											

EXAMPLE

Temperature sensor XD-2TTKBT-GW1-250/16-½NPT-1.4571-1

2 3 4 5 6 7 8

Temperature sensor XD-APTTKBT-GW2-400/24/16-¼NPT-1.4541-2-(0-500)°C-PR5334A3B

1 3 4 5 6 7 8 9 10