

THERMOCOUPLE

Type XD-TT..P, XD-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

- 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)
- 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	stainless steel 1.4541*
Diameter D [mm]	Ø9, Ø10, Ø11, Ø12, Ø14, Ø15
Length L [mm]	160, 200, 250, 400, 500 or other*

Temperature transmitter (option)

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

Remarks

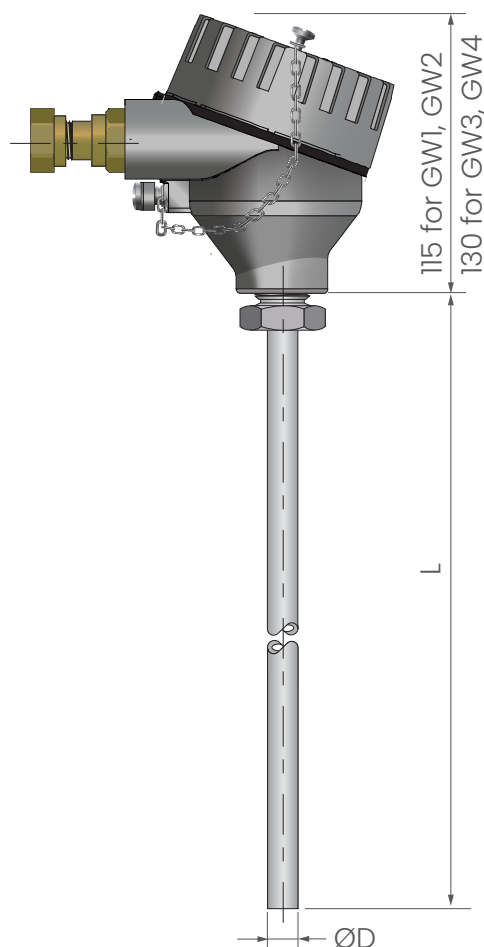
- * other parameters on request
- * category 1/2 for all temperature sensors with the exception of sensors with thermowell made of pipe Ø9x1 (category 2)
- * local display LPI-02 (see technical information)

ATEX Marking:

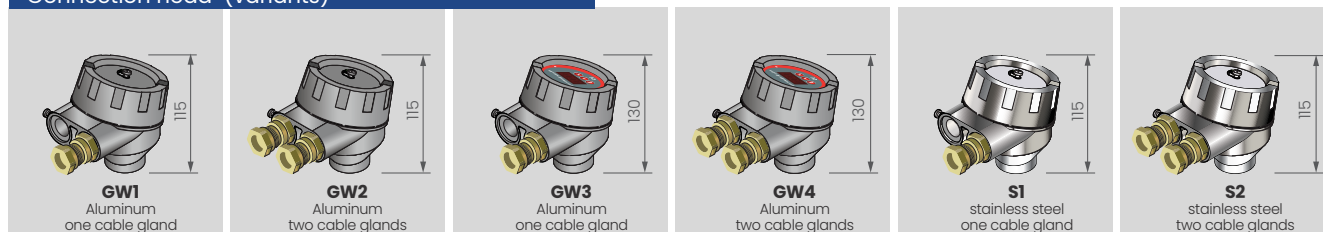
- ☑ I M2 Ex db I Mb
- ☑ II 1/2 G Ex db II C T... Gq/Gb
- ☑ II 1/2 D Ex ta/tb IIIC T... Da/Db

EAC Ex Marking:

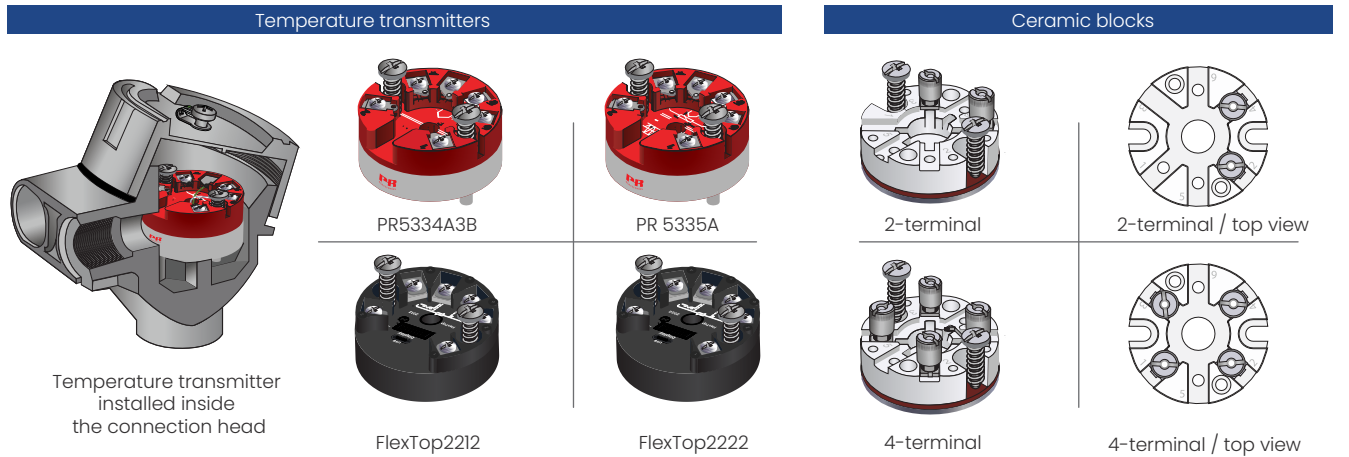
- PB Ex d I Mb X
- Gq/Gb Ex d IIC T..X
- Ex ta/tb IIIC T..Da/Db X



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	XD -	1	2	TT	3	P -	4	5	6	7	8	9	10
without transmitter: with transmitter: with two transmitters:	without mark AP 2AP												
single: double:	without mark 2												
thermocouple Fe-CuNi thermocouple NiCr-NiAl	J K												
connection head type:	GW1, GW 2, GW 3, GW4, S1, S2												
length L [mm]:	160, 250, 400, 500 or other*												
diameter D [mm]:	9, 10, 11, 12, 14, 15 or other*												
TC Class	class 1 class 2												
measuring range for transmitter output 4-20 mA	(...) ^o C												
transmitter type	see specification												
diameter of supply cable (for cable other than)	3...8mm (...)												

EXAMPLE

Temperature sensor XD-2TTKP-GW1-500-12-1

2 3 4 5 6 7

Temperature sensor XD-APTTJP-GW2-400-10-2-(0-100)^oC-PR5334A3B

1 3 4 5 6 7 8 9