

THERMOCOUPLE

Type XI-TT..T, XI-APTT..T

The sensor consists of an exchangeable measuring insert, outer protective tube (thermowell) with 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

- 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)
- flange DN20, DN25 with raised face acc. to PN-ISO 7005-1*
- 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 type „T”

Material	stainless steel 1.4541*
Diameter D (mat. 1.4541)	Ø10, Ø11, Ø12, Ø15 or other*
Length L [mm]	160, 250, 400 or other*

Flange	ØW [mm]	ØH [mm]	ØZ [mm]
DN 20	58	75	105
DN 25	68	85	115
DN 32	78	100	140
DN 40	88	110	150
DN 50	102	125	165

Temperature transmitter (option)

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

ATEX Marking:

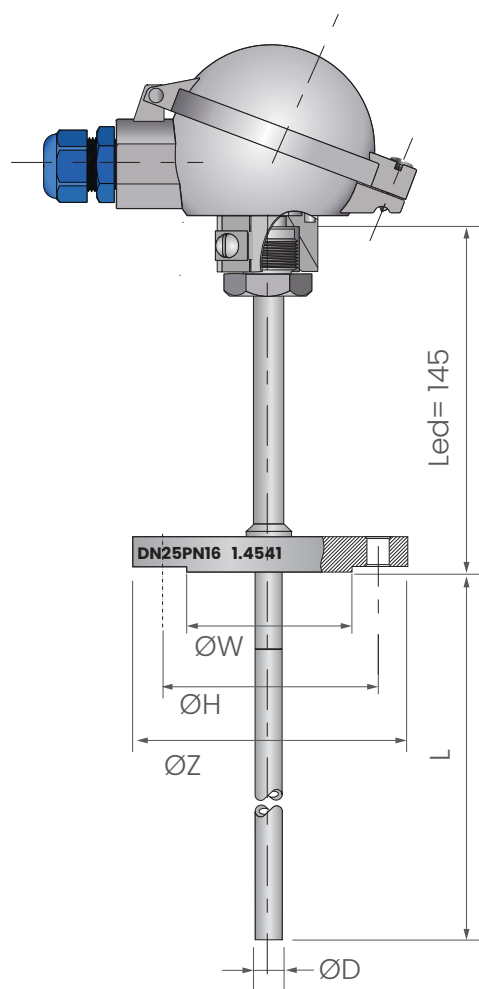
- CE MI Ex ia I Ma
- CE II 1/2 G Ex ia II C T... Ga/Gb
- CE II 1/2 D Ex ia II C T... Da/Db

EAC Ex Marking:

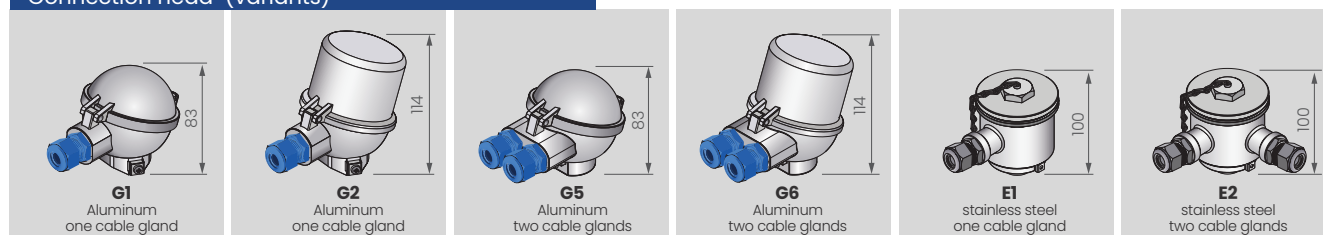
- PO Ex ia I Ma X
- 0Ex ia IIC T..Ga X
- 0Ex ia IIC T..Da X

Remarks

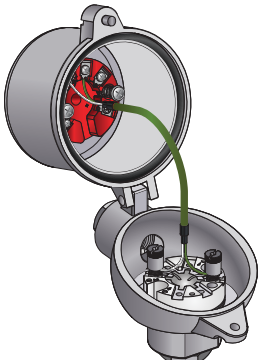
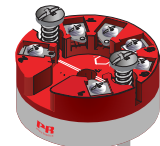

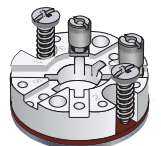
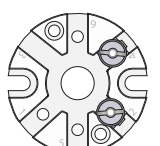


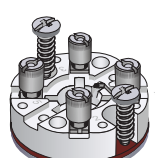
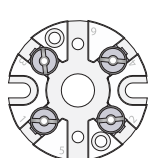
*other parameters on request



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.

Temperature transmitters		Ceramic blocks		
 <p>Example of installed transmitter in high cap of connection head</p>	 <p>PR5334B3B</p>	 <p>PR 5335D</p>	 <p>2-terminal</p>	 <p>2-terminal / top view</p>
	 <p>FlexTop2212</p>	 <p>FlexTop2222</p>	 <p>4-terminal</p>	 <p>4-terminal / top view</p>

ORDERING CODE

		XI -	1	2	3	4	5	6	7	8	9	10	11
Temperature sensor					TT		T	-	-	-	-	-	-
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]:	160, 250, 400 or other*												
diameter D [mm]:	10, 11, 12, 14, 15 or other*												
flange type:	DN20, DN25 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)	5.10mm (...)												

EXAMPLE Temperature sensor XI-TTKT-G1-400-12-DN20-1

3 4 5 6 7 8

Temperature sensor XI-APTTKT-G2-250-12-DN25-1-(0-400)^oC-PR5334B3B

1 3 4 5 6 7 8 9 10