

THERMOCOUPLE

Type XI-TT..G, XI-APTT..G

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)
- process connection: M20x1.5 or G1/2 welded-in to the 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 type „G”

Material	stainless steel 1.4541*
Diameter D [mm]	Ø11, Ø12, Ø15 or other*
Length L [mm]	160, 200, 250, 400, 500 or other*

Temperature transmitter (option)

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

Remarks

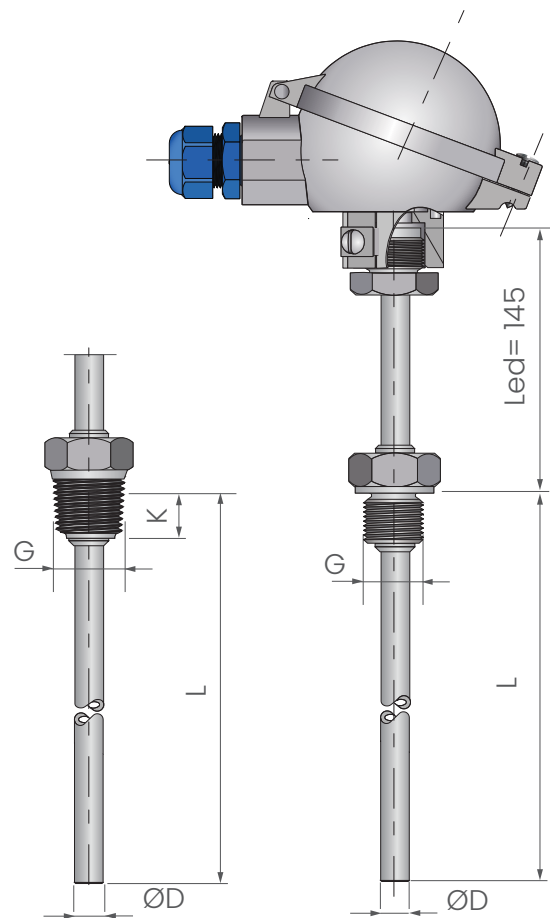
* other parameters on request

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 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



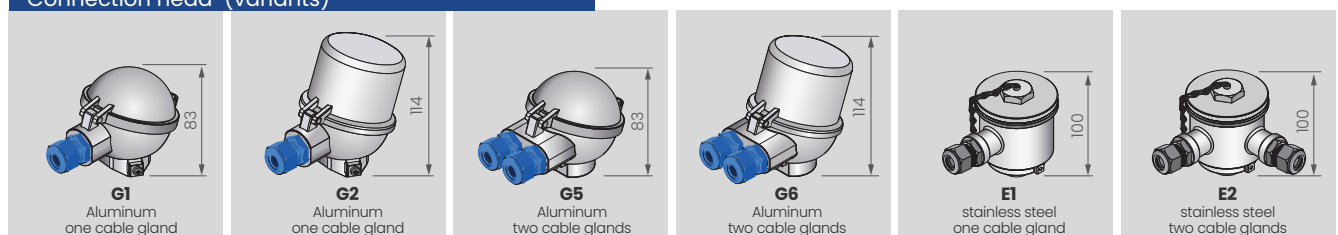
Thermowell G with process connection (tapered thread)

Thermowell G with process connection (parallel thread)

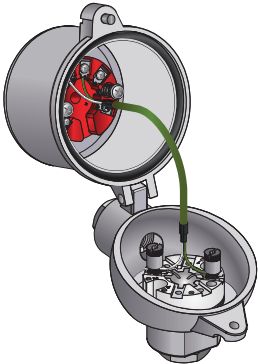
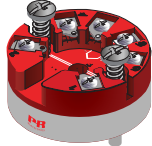

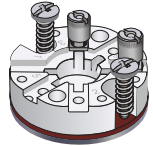





Handtight engagement	Dimension K
thread 1/2"NPT	8.1 mm
thread 3/4"NPT	8.6 mm

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

Temperature sensor		XI -	1	2	3	TT	G	-	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:	G1, G2, G 5, G6, E1, E2															
length L [mm]:	100, 160, 250, 400, 500 or other *															
diameter D [mm]:	11, 12, 15 or other*															
thread:	M20x1.5; G1/2 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-2TTKG-G1-250-12-M27x2-1

2 3 4 5 6 7 8

Temperature sensor XI-APTTJG-G2-160-14-G1"-2-(0-100)°C-PR5334B3B

1 3 4 5 6 7 8 9 10