

RESISTANCE THERMOMETER

Type XI-TOPGB, XI-APTOPGB

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 RTD
- 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: RTD or 4-20mA (option)

Design temperature range

-200 .. +150°C

Sensing element

1x or 2xPt100 acc. to EN 60751 class A, B

Thermowell

Material	stainless steel 1.4541*
Diameter D [mm]	Ø9, Ø11, Ø12, Ø15 or other*
Length L [mm]	100, 160, 200, 250, 400, 500 or other*

Temperature transmitter (option)

PR5333D, PR5335D (HART®)
FlexTop2202, FlexTop2212,
FlexTop2222 (HART®)

Remarks

* other parameters on request

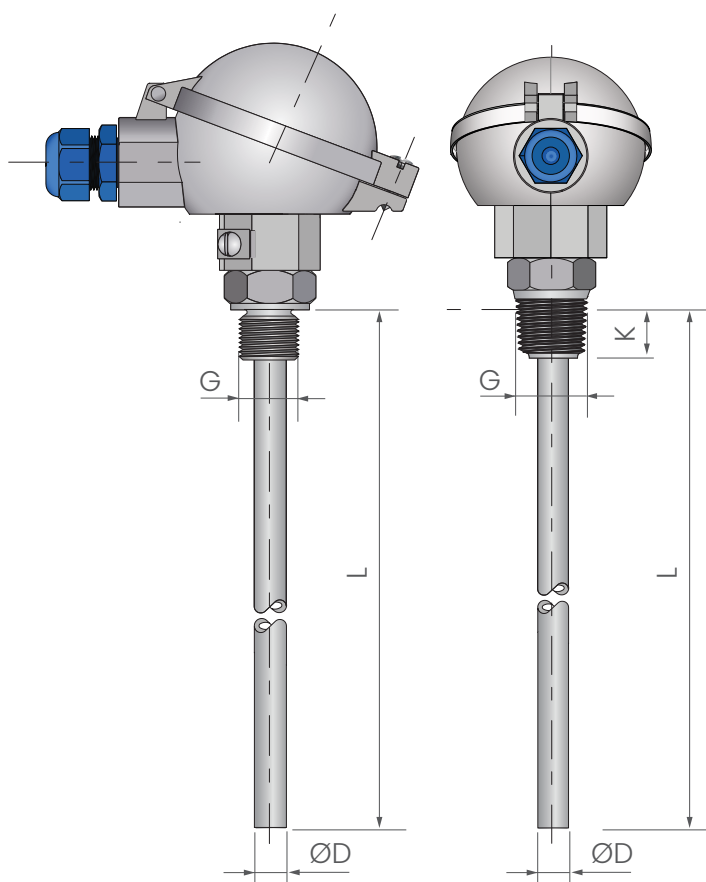
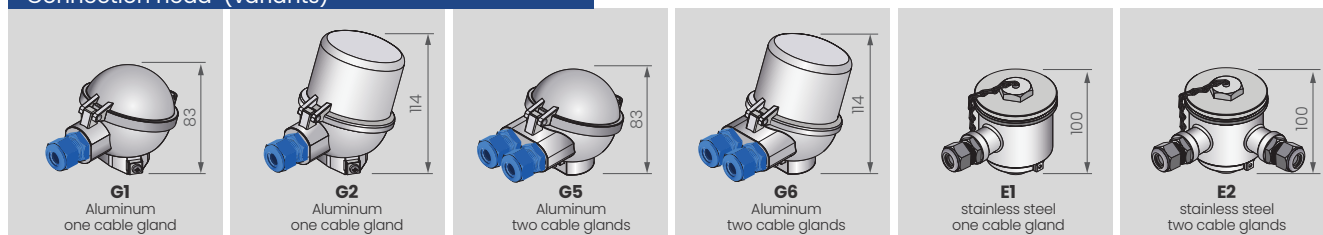
ATEX Marking:

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 IIIC T... Da/Db

EAC Ex Marking:

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

Connection head (variants)



Thermowell GB with process connection (parallel thread)

Thermowell GB with process connection (tapered thread)



Handtight engagement

thread 1/2"NPT
thread 3/4"NPT

Dimension K

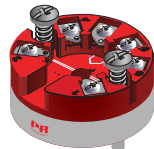
8.1 mm
8.6 mm

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



PR5333D (for RTD)



PR5334B3B



PR 5335D



FlexTop2202

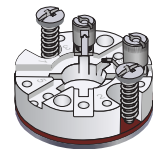


FlexTop2212

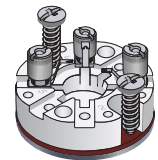


FlexTop2222

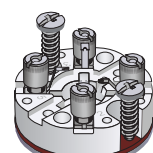
Ceramic blocks



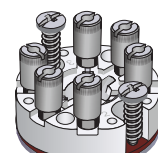
2-terminal



3-terminal



4-terminal



6-terminal

ORDERING CODE

Temperature sensor		XI -	1	2	TOPGB	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													
connection head type:	G1, G2, G5, G6, E1, E2													
length L [mm]:	100, 160, 250, 400, 500 or other*													
diameter D [mm]:	9, 11, 12, 15 or other*													
thread:	M20x1.5; G1/2; 1/2NPT or other													
RTD class:	A, B													
connection line	2, 3, 4 wire for 1xPt100; 2, 3 wire for 2xPt100													
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 - TOPGB- G1- 160- 9 - G1/2- A- 4

Temperature sensor XI-APT0PGB-G2-250-12-M20x1.5-A-3-(0-50)°C-PR5333D