

### RESISTANCE THERMOMETER

#### Type XD-TOPGB, XD-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

- flameproof for mines M2, gas G and dust D atmospheres
- single and double RTD
- 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)
- process connection: M20x1.5, G1/2", 1/2NPT welded-in to the thermowell
- cable gland ATEX I M2, II GD, IP65; (cable dia. 3...8mm) \*
- output signal: RTD or 4-20mA (option)
- local display LPI-02 (option)

#### Design temperature range

-200 .. +150°C

#### Sensing element

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

#### Thermowell

Material	stainless steel 1.4541*
Diameter D [mm]	Ø9, Ø10, Ø11, Ø12, Ø14, Ø15 or other*
Length L [mm]	100, 160, 200, 250, 400, 500 or other*

#### Temperature transmitter (option)

PR5333A, PR5335A (HART®),  
FlexTop2202, FlexTop2212, FlexTop2222 (HART®)

#### Remarks

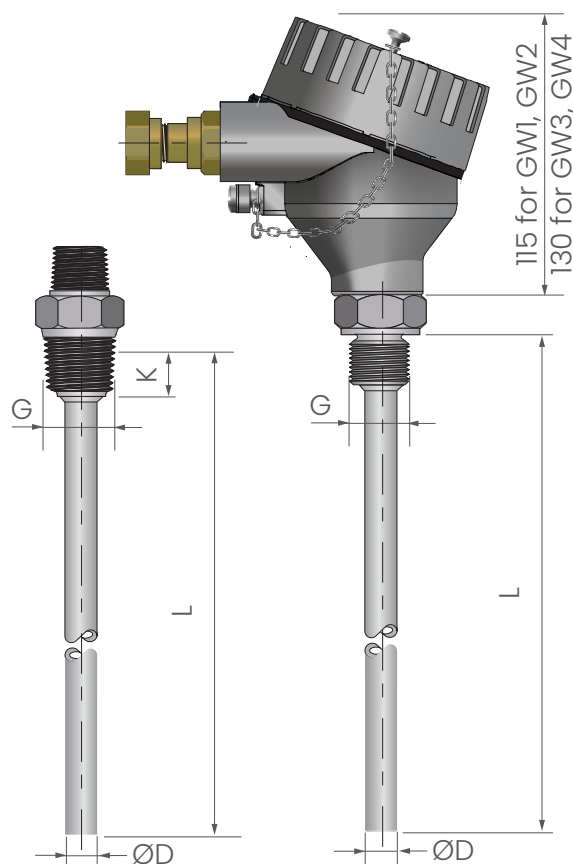
- \* other parameters on request
- \* local display LPI-02 (see technical information)
- \* category 1/2 for all temperature sensors with the exception of sensors with thermowell made of pipe Ø9x1 (category 2)

#### 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



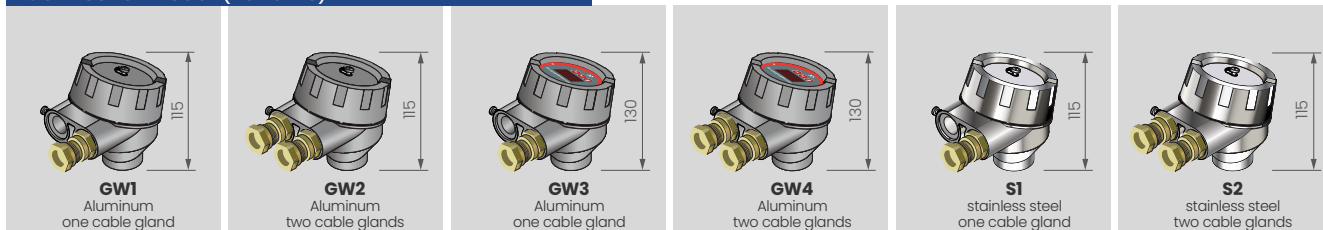
Thermowell GB with process connection (tapered thread)

Thermowell GB 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)



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		XD - <input type="checkbox"/> <input type="checkbox"/> TOPGB <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>										
with transmitter:	AP											
with two transmitters:	2AP											
single:	without mark											
double:	2											
connection head type:	GW1, GW 2, GW 3, GW4, S1, S2											
length L [mm]:	100, 160, 250, 400, 500 or other*											
diameter D [mm]:	9, 10, 11, 12, 14, 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, 3wire for 2xPt100											
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- TOPGB- GW1- 250- 11- G1/2- A- 4

3 4 5 6 7 8

Temperature sensor XD-APT0PGB-GW1-400-12-M20x1.5-A-3-(0-50)°C-PR5333A

1 3 4 5 6 7 8 9 10