RESISTANCE THERMOMETER
Type XD-TOPP, XD-APTOPP

he 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

- 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)
- 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 .. +550ºC

Sensing element

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

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)

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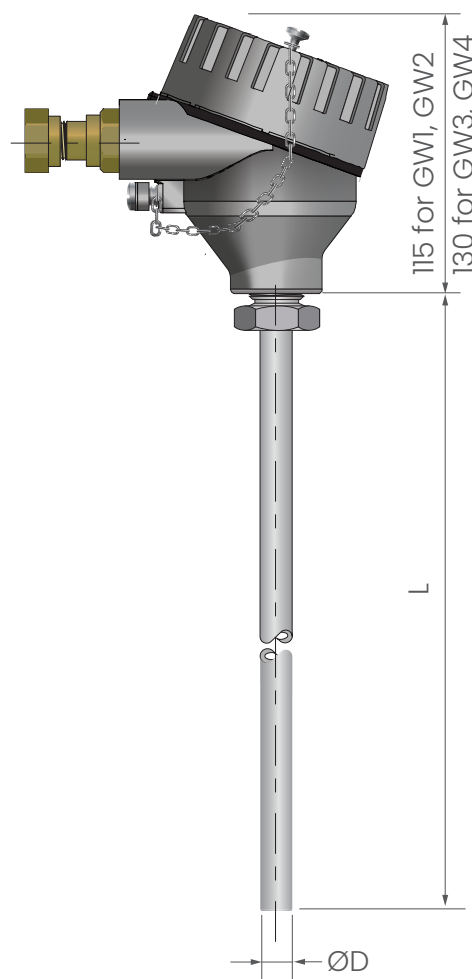FlexTop2202, FlexTop2212, FlexTop2222 (HART®)

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)
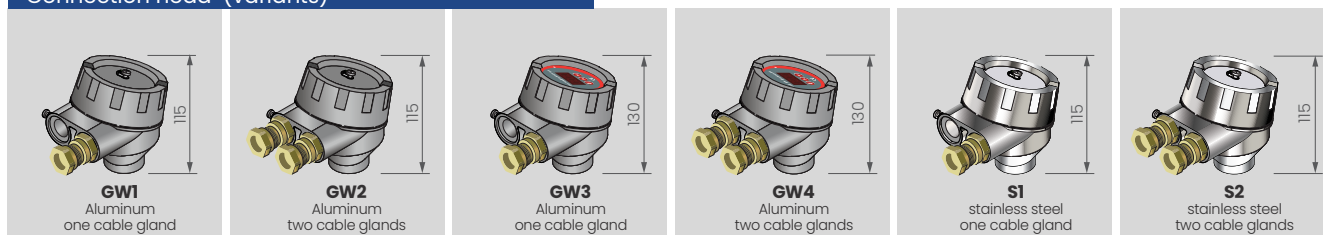* local display LPI-02 (see technical information)

ATEX Marking:	EAC Ex Marking:
CE Ex I M2 Ex db I Mb	PB Ex d I Mb X
CE Ex II 1/2 G Ex db II C T... Ga/Gb	Ga/Gb Ex d IIC T..X
CE Ex II 1/2 D Ex ta/tb IIIC T... Da/Db	Ex ta/tb IIIC T..Da/Db X

115 for GW1, GW2
130 for GW3, GW4

L

ØD

Connection head (variants)

| GW1	GW2	GW3	GW4	S1	S2
115	115	130	130	115	115
Aluminum one cable gland	Aluminum two cable glands	Aluminum one cable gland	Aluminum two cable glands	stainless steel one cable gland	stainless steel two cable glands

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 ºC.
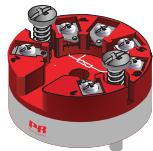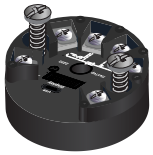
Temperature transmitters			Ceramic blocks	
PR5333A (for RTD)	PR5334A3B (for TC)	PR5335A (univ.)	2-terminal	3-terminal
FlexTop2202	FlexTop2212	FlexTop2222	4-terminal	6-terminal
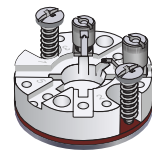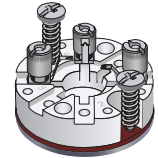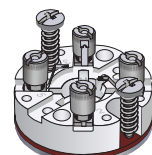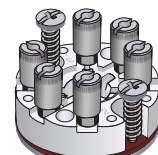
ORDERING CODE

XD - [1] [2] TOPP- [3] - [4] - [5] - [6] - [7] - [8] - [9] - [10]

Temperature sensor	
without transmitter: with transmitter: with two transmitters:	without mark AP 2AP
single: double:	without mark 2
connection head type:	GW1, GW 2, GW 3, GW4, S1, S2
length L [mm]:	160, 200, 250, 400 , 500 or other*
diameter D [mm]:	9, 10, 11, 12, 14, 15 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	(...)ºC
transmitter type	see specification
diameter of supply cable (for cable other than)	3..8mm (...)

EXAMPLE

Temperature sensor   XD-TOPP-GW1-250-12-A-4
[3] [4] [5] [6] [7]

Temperature sensor XD-APTOPP-GW1-630-15-A-3-(0-400)ºC-PR5333A
[1] [3] [4] [5] [6] [7] [8] [9]