RESISTANCE THERMOMETER

Type **XI-TOPT, XI-APTOPT**

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 M1, 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)
- flange DN20, DN25 with raised face acc. to PN-ISO 7005-1*
- cable gland ATEX I M1, II GD, IP65; (cable dia. 5..10mm)*
- output signal: RTD or 4-20mA (option)

Design temperature range

-200 .. +550°C

Sensing element

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

Thermowell type „T"

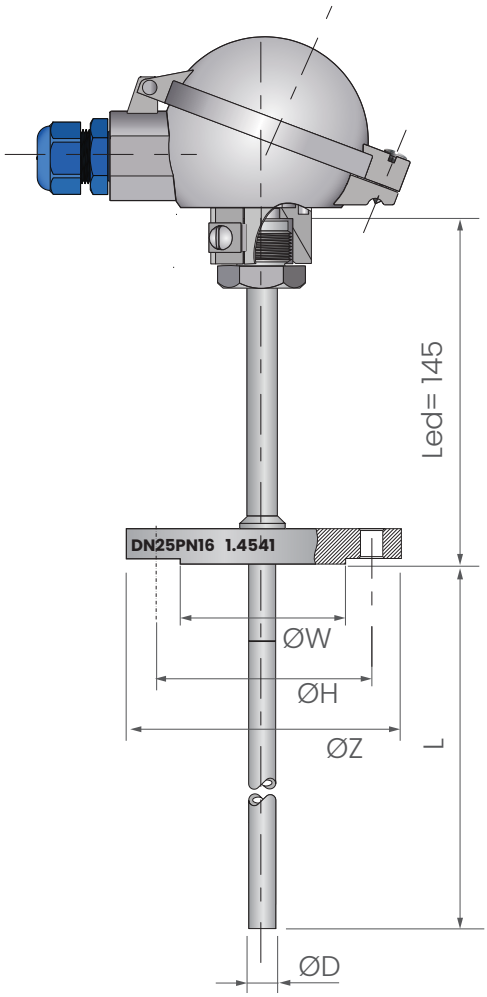
Material	stainless steel 1.4541*
Diameter D [mm]	Ø10, Ø11, Ø12, Ø15 or other*
Length L [mm]	160, 250, 400 or other*

Temperature transmitter (option)

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

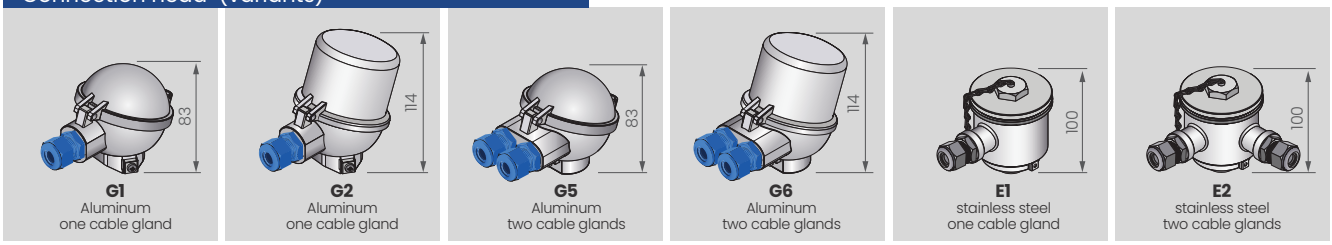
Flange	ØW [mm]	ØH[mm]	ØZ[mm]
DN 20	58	75	105
DN 25	68	85	115
DN 32	78	100	140
DN 40	88	110	150
DN 50	102	125	165

ATEX Marking:	EAC Ex Marking:
CE Ex I M1 Ex ia I Ma	PO Ex ia I Ma X
CE Ex II 1/2 G Ex ia II C T... Ga/Gb	0Ex ia IIC T..Ga X
CE Ex II 1/2 D Ex ia IIIC T... Da/Db	0Ex ia IIIC T..Da X



Remarks
* other parameters on request

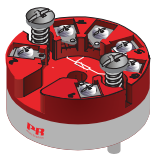
Connection head (variants)



G1 Aluminum one cable gland
G2 Aluminum one cable gland
G5 Aluminum two cable glands
G6 Aluminum two cable glands
E1 stainless steel one cable gland
E2 stainless steel two cable glands

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

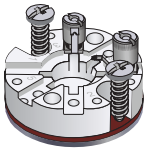
PR 5335D

FlexTop2202

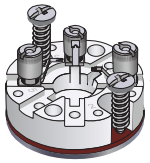
FlexTop2212

FlexTop2222

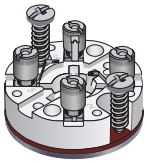
Ceramic blocks



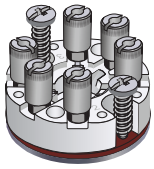
2-terminal



3-terminal



4-terminal



6-terminal

ORDERING CODE

Temperature sensor		XI -	1	2	TOPT-	3	-	4	-	5	-	6	-	7	-	8	-	9	-	10	-	11
without transmitter: with transmitter: with two transmitters:	without mark AP 2AP																					
single: double:	without mark 2																					
connection head type:	G1, G2, G 5, G6 , E1 , E2																					
length L [mm]:	160, 250, 400 or o ther*																					
diameter D [mm]:	10, 11, 12, 15 o r oth er*																					
flange type:	DN20, DN25 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)	5. .10mm (...)																					

EXAMPLE

Temperature sensor XI-TOPT-G1-400-12-DN25-A-4

3 4 5 6 7 8

Temperature sensor XI-APTOPT-G2-250-12-DN20-A-3-(0-150)°C-PR5333D

1 3 4 5 6 7 8 9 10