

TEMPERATURE SENSOR

Type XDI-T..P

Sensor consists of an exchangeable measuring insert, welded thermowell and field mounted temperature transmitter PR7501.

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. Insertion length, design and material of thermowell and connection head can be selected individually for the respective application.

TECHNICAL DATA

Description

- flameproof and intrinsically safe for gas G and dust D atmospheres
- single and double RTD and TC
- exchangeable mineral insulated measuring insert
- connection head: aluminium, IP68, ATEX II 2 GD (see technical information)
- process connection: M20x1.5, G½", ½"NPT or other
- cable gland M20x1.5, II 2G Ex db IIC Gb, II 2D Ex tb IIIC Db; IP68 (cable dia. Ø3 - Ø8mm)*
- output signal: 4..20mA with HART® ver. 5 and 7 protocol
- local display, OPTO keypad (option)

Design temperature range

-200 .. +600°C	for Pt100	
-40 .. +800°C	for NiCr-NiAl (K)	K
-40 .. +700°C	for Fe-CuNi (J)	J

Sensing element

1x or 2xPt100	acc. to EN 60751 class A, B
1x or 2xTC (J, K, N, E, T)	acc. to EN 60584-2 class 1, 2

Thermowell „GN"

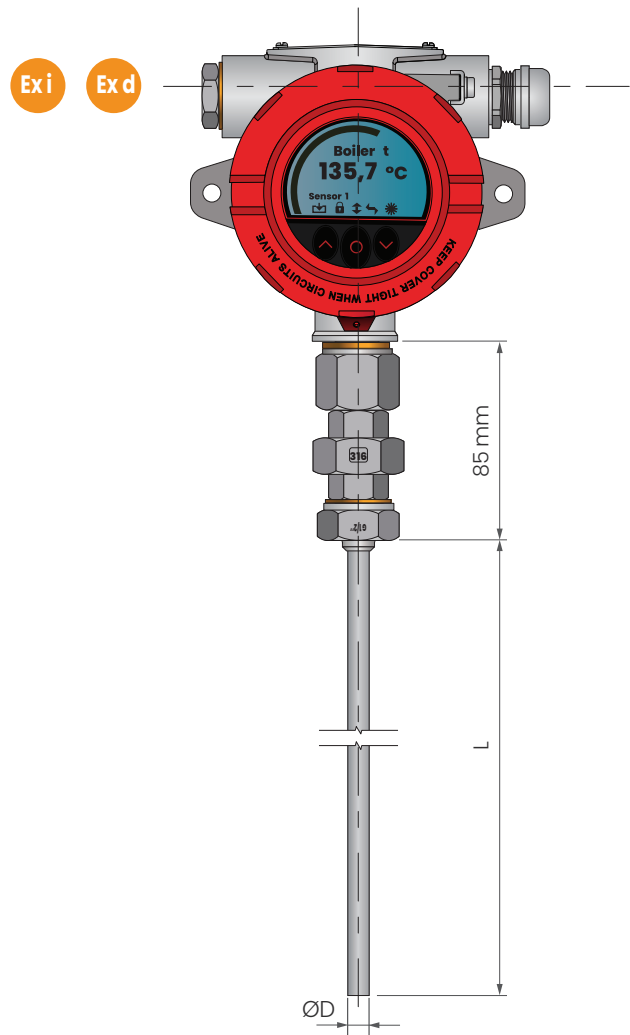
Material	stainless steel 1.4541*
Diameter D [mm]	Ø9, Ø10, Ø12, Ø14, Ø15 mm or other*
Length L [mm]	160, 200, 250, 400, 500 or other*

Remarks

- * other parameters on request
- * category ½ for all temperature sensors with the exception of sensors with thermowell made of pipe Ø9x1 (category 2)

ATEX Marking:

- CE II 1/2G Ex ia IIC T... Ga/Gb or
- CE II 1/2G Ex db IIC T... Ga/Gb or
- CE II 1/2D Ex ia IIIC T... Da/Db or
- CE II 1/2D Ex ta/tb IIIC T... Da/Db



Temperature sensors for Hazardous Areas

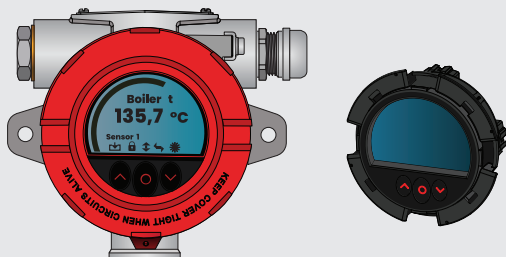
FLAMEPROOF AND INTRINSICALLY SAFE TEMPERATURE SENSORS



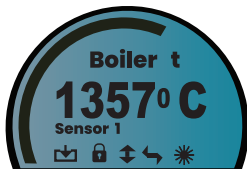
Catalogue | Edition 2023

Local operator interface (LOI)

- 3 optical buttons; up, down and enter.
- Dynamically adaptive to wear or accumulation of dirt.
- Immune to interference from ambient light sources.
- Useable with or without gloves.

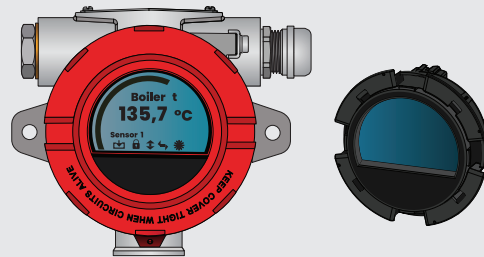


Monitoring view

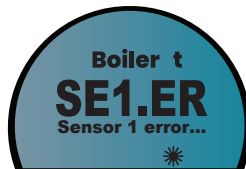


High definition display

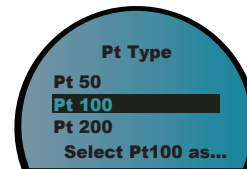
- 0, 90, 180, & 270 degree position adjustments.
- Monitoring, programming and diagnostics view.
- Extensive diagnostics with flashing red or white backlight
- Supports 7 languages.



Diagnostics view



Programming view



ORDERING CODE

Temperature sensor		XDI - [1] T [2] P [3] - [4] [5] - [6] - [7] - [8] - [9]								
single:	without mark	<input type="checkbox"/>								
double:	2	<input type="checkbox"/>								
RTD Pt:	OP	<input type="checkbox"/>								
Thermocouple NiCr-NiAl:	TK	<input type="checkbox"/>								
Thermocouple Fe-CuNi:	TJ	<input type="checkbox"/>								
length L [mm]:	100	<input type="checkbox"/>	400	<input type="checkbox"/>						
	160	<input type="checkbox"/>	500	<input type="checkbox"/>						
	250	<input type="checkbox"/>	or other*	<input type="checkbox"/>						
diameter D [mm]:	6	<input type="checkbox"/>								
	8	<input type="checkbox"/>								
	9	<input type="checkbox"/>								
	or other*	<input type="checkbox"/>								
RTD class:	A, B	<input type="checkbox"/>								
TC class:	1,2	<input type="checkbox"/>								
connection line (only for RTD):	2, 3, 4 wire for 1xPt100;	1x <input type="checkbox"/>								
	2, 3wire for 2xPt100	2x <input type="checkbox"/>								
measuring range for transmitter output 4-20 mA	(...) ^o C	<input type="checkbox"/>								
connection head type:	PR7501	<input type="checkbox"/>								
without OPTO keypad:	without mark	<input type="checkbox"/>								
with OPTO keypad:	OPTO	<input type="checkbox"/>								

EXAMPLE

Temperature sensor XDI-TOPP-250-12-A-3-(0..+400)^oC-PR7501

3 4 5 6 7 8

Temperature sensor XDI-TOPP-120-15-A-3-(0..+300)^oC-PR7501-OPTO

3 4 5 6 7 8 9