

Temperature sensor TF-M-Atex / TF-E-Atex



The continuous measurement of the actual temperature of the fluid is of high importance in fluid power or lubrication systems. RTD's (Pt100) have been proven a reliable measuring method in a broad range of applications.

This unit is a simple apparatus without own voltage source. In an intrinsically safe installation acc. to EN 60079-14 the temperature switch can be used in hazardous locations zone 1 (group IIC, cat. 2G). That applies also to the zone inside of the reservoir. For standard application the temperature class is T5 at ambient temperatures -20 °C to +80 °C.

The TF range of sensors are available with housing made from brass or stainless steel.

The connector and RTD form an integral unit which may be removed without disturbing the housing.

The TF is compatible with our Thermotronic range as well as many other controllers accepting an RTD signal.

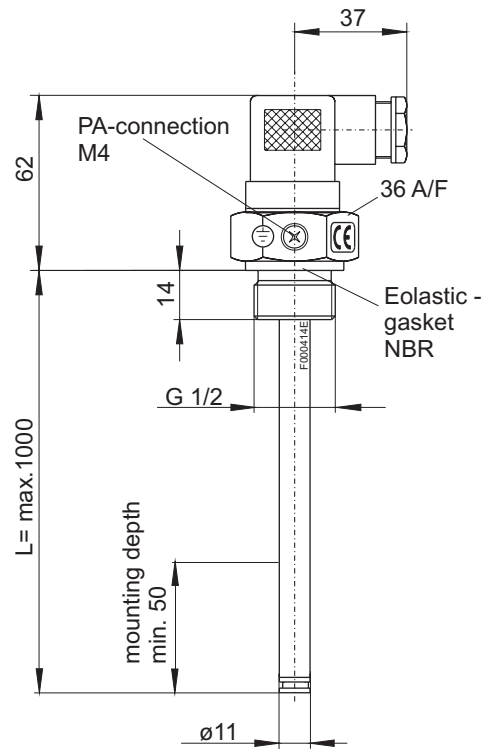
- **Atex - range of use:
zone 1 (cat. 2G), intrinsically safe
acc. to EN 50020**
- **rugged design**
- **electrical insert easy to remove**
- **DIN or optional M 12 connector**
- **elastomer seal fitted as standard**
- **DIN connector allows adjustment
of cable orientation in 90 ° steps**

technical data

max. operating temperature : 80 °C
 ambient temperature : -20 to +80 °C

	TF-M-Atex-Pt100	TF-E-Atex-Pt100
material probe	brass	1.4571 stainless
max. operating pressure	5 bar	10 bar
max. length of probe	1000 mm	1000 mm

temperature sensor : PT 100 class B DIN / IEC 751
 tolerance : $\pm 0,8^{\circ}\text{C}$
 P_i : 0,14 mW
 I_{max} : 1 mA



basic numbers of precision resistor PT 100

°C	Ohm
0	100,00
10	103,90
20	107,79
30	111,67
40	115,54
50	119,40
60	123,24
70	127,07
80	130,89
90	134,70
100	138,50

supplies

connection plug M12x1 (5-pol.) 3,0 m
 part-no.: 9144050018

controllers for temperature sensor-Atex
 see data sheet: DE 18 0004

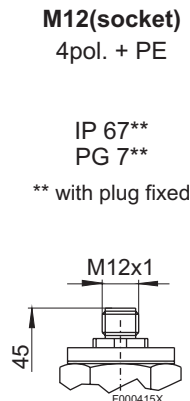
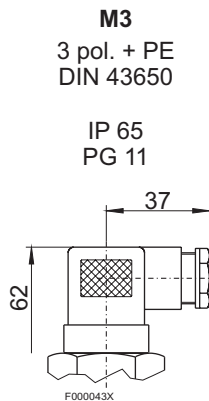
Ex-qualification: II 2 G EEEx ib IIC T5
 L_i, C_i : negligible ; I_{max} : 1mA ; P_i : 0,14mW



The temperature sensors to be allowed only for
 intrinsically safe electric circuit !

connectors

protection class
 cable gland
 other connectors available
 upon request



order information

part-no. of basic version, L=variable

with connector	M3	M12 (socket)	length
TF-M-Atex-Pt100-...	1126999A	1895599A	L = ... mm
TF-E-Atex-Pt100-...	1127999A	1129999A	L = ... mm

order example:

you need: temperature sensor with connector type M3, length L= 220 mm, operating pressure = 2 bar
 you order: part-no.: 1126999A , temperature sensor TF-M-Atex-Pt100-M3 with L= 220