

FRODE PEDERSEN

Application

- Measurement of temperature in closed pipes with gaseous and liquids media, such as gasses and water
- The operating range is up to 200°C
- Fields of application
 - Heat and ventilation (HVAC)
 - Heat- and energy distribution
 - Energy management

Technical features

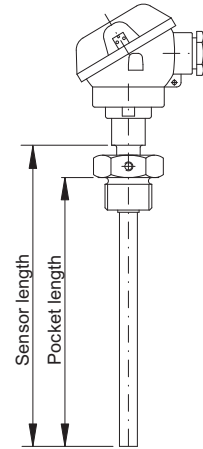
- Pt100, Pt500 and Pt1000 resistance thermometer acc. to IEC 751
- Special tolerance for energy measurement, paired in groups
- Tolerance is identified by a colour code
- Special designed screw-in pocket means fast response time
- Can be supplied with head mounted transmitter as an option

Ordering

The requested sensor is selected from the table below
The colour code means:

- Standard: Built of standard modules (short delivery time)
- Variant: Modified standard modules
- Special: Special versions and material. We are specialist in temperature measurement. Please contact us and we shall do our utmost to solve your specific measuring task

Sensor with pocket



Ordering information

Specification number	1814-	Sensor						Transmitter					

Protective tube

SS, acidproof steel, W.no. 1.4571 (AISI 316Ti)

8mm OD. 0.5mm wall

Special:

0
s

Insertion length (mm), pocket with sensor

85 (Pocket). Sensor length: 97mm	0	8	5
120 (Pocket). Sensor length: 132mm	1	2	0
150 (Pocket). Sensor length: 162mm	1	5	0
200 (Pocket). Sensor length: 212mm	2	0	0
Special (max. 250)	x	x	x

Insertion length, sensor (mm) wo. pocket

97 (Sensor). Pocket length: 85mm	0	9	7
132 (Sensor). Pocket length: 120mm	1	3	2
162 (Sensor). Pocket length: 150mm	1	6	2
212 (Sensor). Pocket length: 200mm	2	1	2
Special (max. 262)	x	x	x

Process connection (see page 2)

No pocket

1/2" BSP

ISO 7/1-R1/2"

Special:

0
1
2
s

Connection head

Mignon (Mini) (no transmitter)

B: Degree of protection IP 53

Andet:

0
1
0
s
s

Transmitter, 2-wire, 4-20mA output

- 0 None
- 1 FPTM as terminal block (Sensor only 3-wire)
- 2 FPTU standard version. As terminal block
- 3 FPTU standard version. In high cap, B-head
- 4 FPTU galvanic isolated. EEXiallCT4/6. As terminal block
- s Special:

Note 3: Please specify measuring range in °C

Connection. Wiring configuration

- 0 ... 3-wire only with B-head
- 1 ... 4-wire only with B-hoved
- 2 ... 2-wire standard for Mignon (Mini) head

Tolerance acc. to IEC 751

- 0 ... Class B, i.e. $\pm (0.3^\circ\text{C} + 0.005 \times t_{\text{actual}})^\circ\text{C}$
- 1 ... Class A, i.e. $\pm (0.15^\circ\text{C} + 0.002 \times t_{\text{actual}})^\circ\text{C}$ ²⁾
- 2 ... Paired in groups, deviation $\pm 0.1^\circ\text{C}$ @ 0°C og 100°C ¹⁾
- s Special:

Note 1: The tolerance apply from 0°C to 100°C

Note 2: Apply only from 0°C to 150°C and as Pt100

Resistance value (ohm) acc. to IEC 751

- 0 ... 1xPt100
- 1 ... 1xPt500
- 2 ... 1xPt1000
- s Special:

Measuring range

-50 +200°C

Special:

Accessories

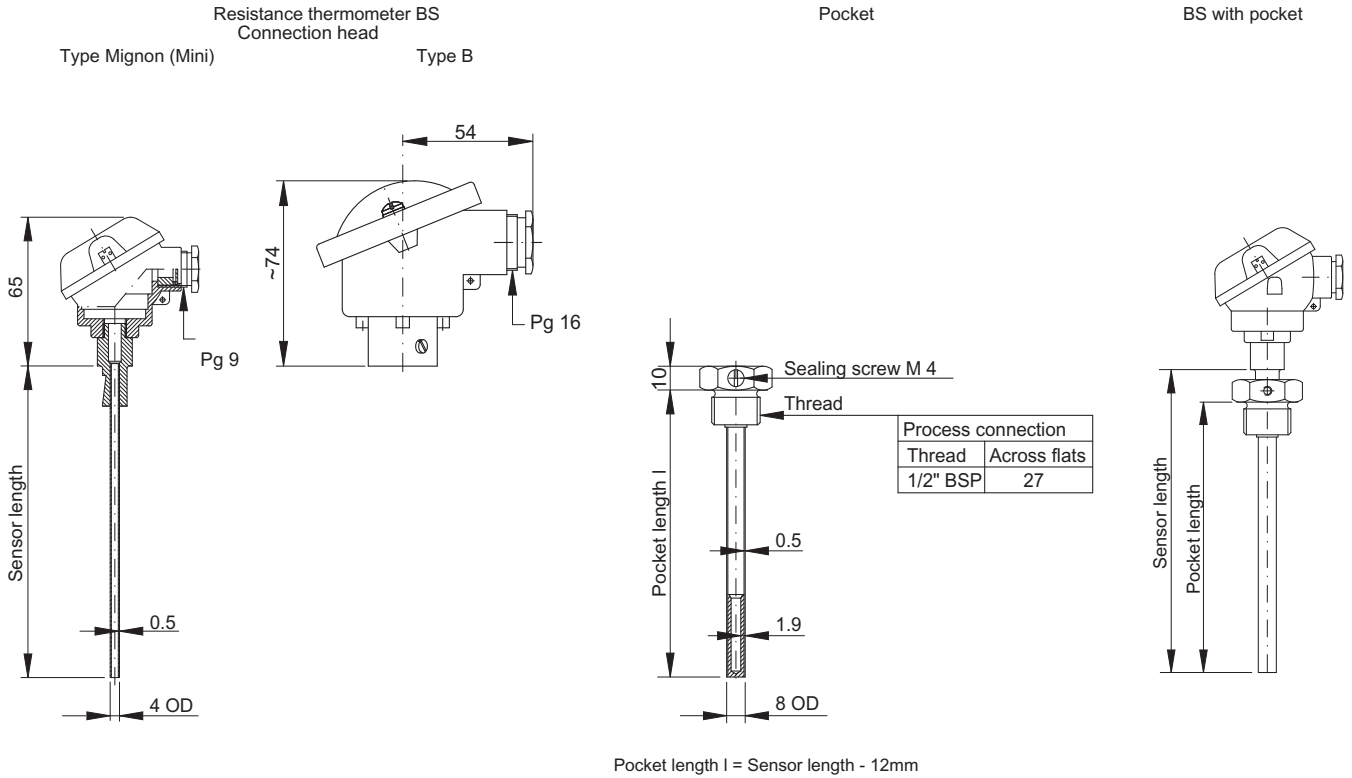
Transmitter: See data sheet 9168

Customer information

Name:

Tel.:

Dimensions



Response time

Protective tube	Response time in seconds (guidelines)			
	In water @ 0.4m/sec.		In air @ 3m/sec.	
	t _{0.5}	t _{0.9}	t _{0.5}	t _{0.9}
With pocket 8 OD	11	33	60	180

Note:

The 0.5/0.9 time is the time that it takes the sensor to reach 50%/90% of the final value of a temperature change of a medium.
If media and velocity are different from the ones stated, the time can change significantly.

Connection diagram

