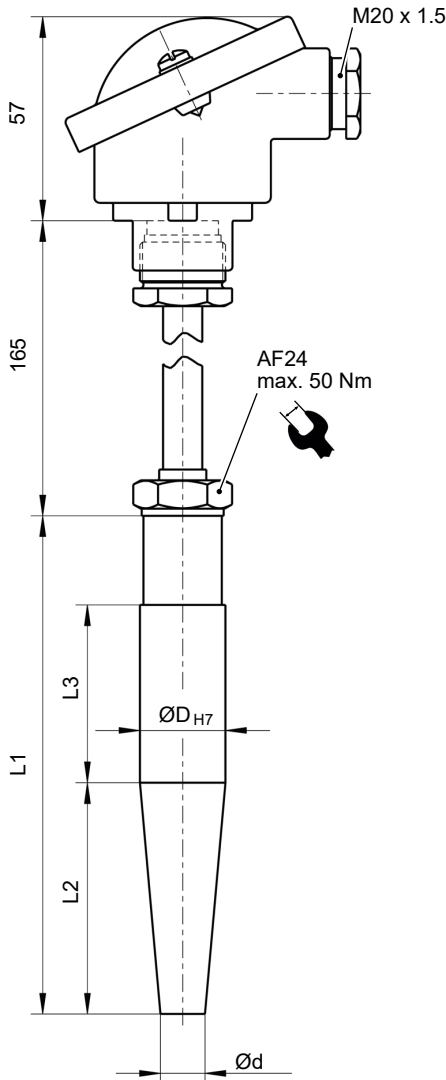


TW45 Weld-in resistance thermometer

similar to type D, DIN 43767 (for high pressure and flow loads)



Measuring element:

Measuring insert in compliance with DIN 43762
Insertion tube stainless steel 1.4571
Measuring resistor 1x or 2x Pt100 DIN EN60751

Protective sleeve:

Type SD1, SD2, SD7 DIN 43772 Form 4 (see tab.1)
Materials:
1.7335 (13CrMo44)
1.4571 (X6CrNiMoTi17122)
1.0460 (C22.8)

Table 1	SD1	SD2	SD7
ØD _{H7}	18	18	18
Ød	9	9	9
L1	140	200	115
L2	65	125	40
L3	50	50	50

(all dimensions in mm)

Mechanical load capacity according to Figures 1 and 2 (for material 1.0460 (C22.8), max. pressure 250 bar)

Neck pipe:

Ø 11 mm; 165 mm long
Stainless steel 1.4571

Attachment:

M14 x 1.5 screw thread

Connection head:

Standard: Type B in accordance with DIN 43729

Max. measurement temperature:

540°C for 1.7335 (13CrMo44)
400°C for 1.4571 (X6CrNiMoTi17122)
400°C for 1.0460 (C22.8)

Max. temperature in the connection head:

+80°C

Mechanical and thermal strength of Form SD protection tubes similar to DIN 43772 Form 4

Diagram 1

Material 1.7335 (13CrMo44)

Permissible flow velocity:

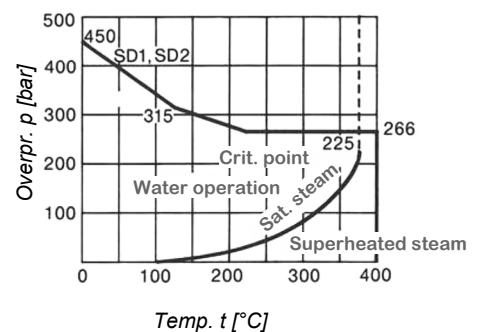
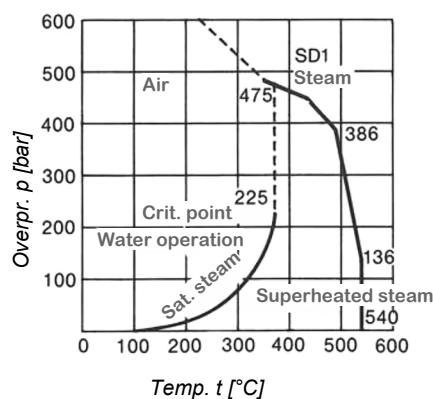
for air and superheated steam: 60 m/s
for water: 5 m/s up to a maximum of 450 bar

Diagram 2

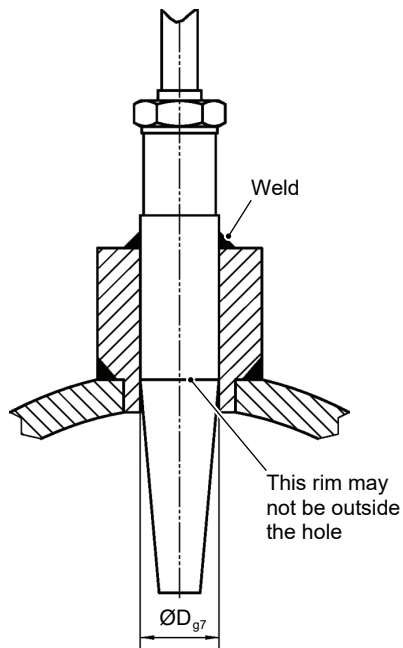
Material 1.4571 (X6CrNiMoTi17122)

Permissible flow velocity:

Protective tubes SD1, SD2
for air, superheated steam, water 60 m/s



Process connection



(For bore dimensions, see Table 2)

Table 2	SD1	SD2	SD7
ØD _{g7}	18	18	18

Order codes

T	W	4	5
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					0	
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Base type

- Meas. insert with 1x Pt100/2-wire... > A
- Meas. insert with 1x Pt100/3-wire... > B
- Meas. insert with 1x Pt100/4-wire... > C
- Meas. insert with 2xPt100/2-wire... > D
- Meas. insert with 2xPt100/3-wire... > E

Model

- Form B (standard) > 1
- Form BBK > 2
- Form S79 > 3
- Form BUSH > 4
- Form BUS > 5

Protective sleeve

- SD1 > 1
- SD2 > 2
- SD7 > 3

Protection sleeve material

- 1.7335 (13CrMo44) > 1
- 1.4571 (X6CrNiMoTi17122) > 3
- 1.0460 (C22.8) > 4

Output

- Resistance output on the terminal > K
- 2-wire transmitter 4-20 mA/24 Vdc* > L

(*only possible with basic type 1xPt100/3-wire)

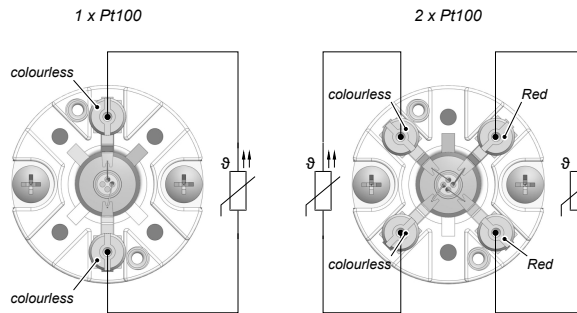
Measuring range of the 2-L transmitter

- without transmitter in the connector head > 0 0
- 50 ... 0 °C > 1 0
- 50 ... 50 °C > 2 0
- 0 ... 50 °C > 3 0
- 0 ... 100 °C > 4 0
- 0 ... 150 °C > 5 0
- 0 ... 200 °C > 6 0
- 0 ... 300 °C > 7 0
- 0 ... 400 °C > 8 0

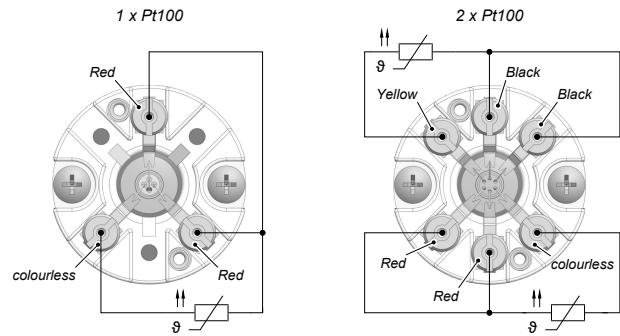


Pin assignment

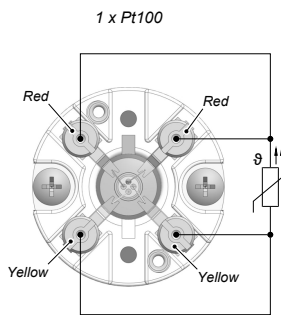
2-wire connection



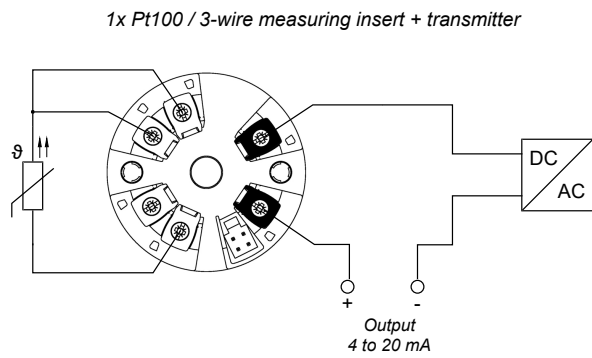
3-wire connection



4-wire connection



Transmitter connection





FISCHER Mess- und Regeltechnik GmbH

Bielefelder Straße 37a
D-32107 Bad Salzuflen

Tel.: +49 5222 974-0

www.fischermesstechnik.de
info@fischermesstechnik.de

Technische Änderungen vorbehalten • Subject to technical changes • Sous réserve de modifications techniques

