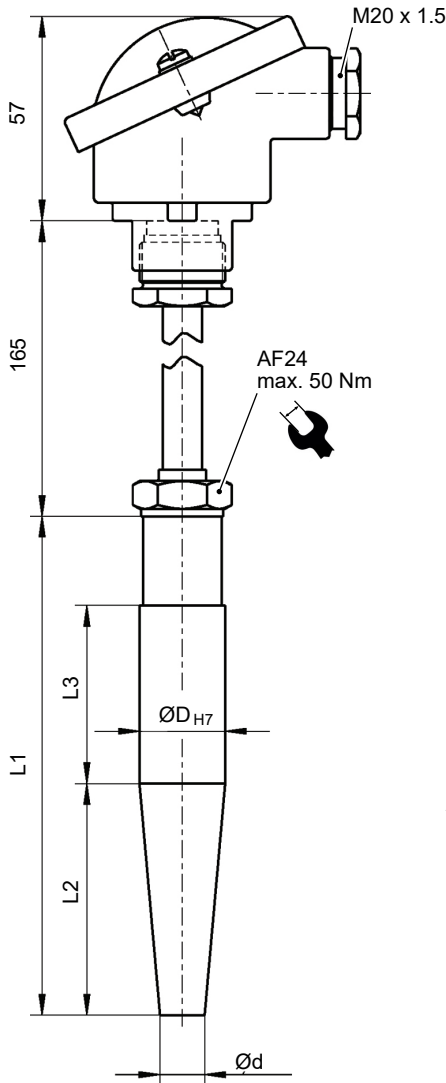


Weld-in resistance thermometer TW40

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: Form D1 ... D6 DIN 43772 Form 4 (see table 1)

Materials:
1.7335 (13CrMo44)
1.7380 (10CrMo910)
1.4571 (X6CrNiMoTi17122)
1.0460 (C22.8)

Table 1	D1	D2	D3	D4	D5	D6
$\varnothing D_{H7}$	24	24	30	24	24	30
$\varnothing d$	12.5	12.5	16	12.5	12.5	16
L1	140	200	200	200	260	255
L2	65	125	65	65	125	125
L3	50	50	110	110	50	105

(all dimensions in mm)

Mechanical load capacity according to Figures 1 to 3
(for material 1.0460 (C22.8), max. pressure 250 bar)

Neck pipe: $\varnothing$ 11 mm; 165 mm long
Stainless steel 1.4571

Attachment: M18 x 1.5 screw thread

Connection head: Standard: Type B in accordance with DIN 43729

Max. measurement temperature: 540°C for 1.7335 (13CrMo44)
570°C for 1.7380 (10CrMo910)
400°C for 1.4571 (X6CrNiMoTi17122)
400°C for 1.0460 (C22.8)

Max. temperature +80°C
in the connection head:

Mechanical and thermal strength of Form D1 - D6 protection tubes as per 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 max. of 450 bar

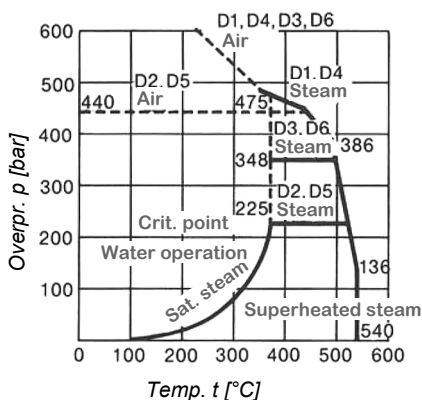


Diagram 2
Material 1.7380 (10CrMo910)
Permissible flow velocity:
for air and superheated steam: 60 m/s
for water: 5 m/s up to a max. of 450 bar

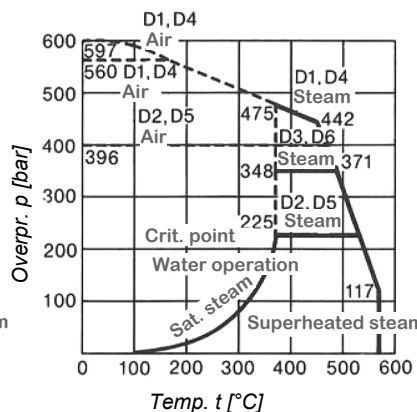
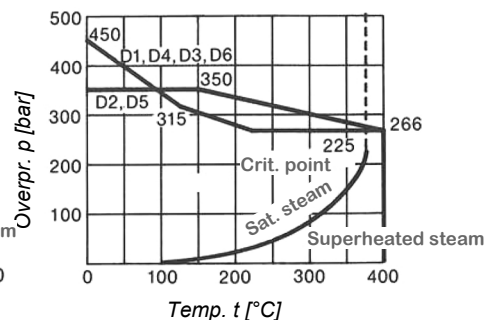
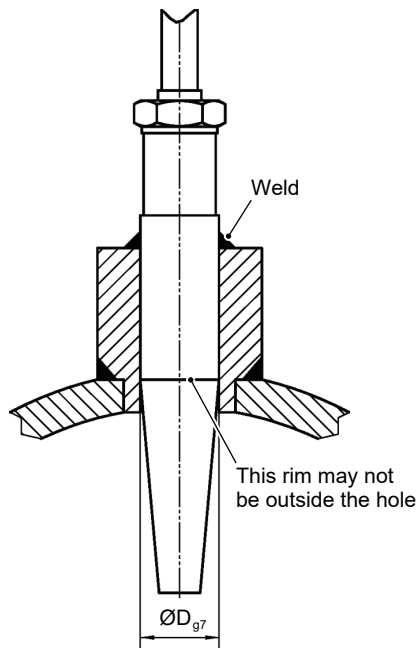


Diagram 3
Material 1.4571 (X6CrNiMoTi17122)
Permissible flow velocity:
Protective tubes D1, D3, D4, D6
for air, superheated steam, water 60 m/s
Protective tubes D2, D5
for air 60 m/s
for superheated steam, water 30 m/s



Process connection



(For bore dimensions, see Table 2)

Table 2

	D1	D2	D3	D4	D5	D6
ØD _{g7}	24	24	30	24	24	30

Order codes

T W 4 0

□ □ □ □ □ 0 □ □

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

- D1 > 1
- D2 > 2
- D3 > 3
- D4 > 4
- D5 > 5
- D6 > 6

Protection sleeve material

- 1.7335 (13CrMo44) > 1
- 1.7380 (10CrMo910) > 2
- 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)

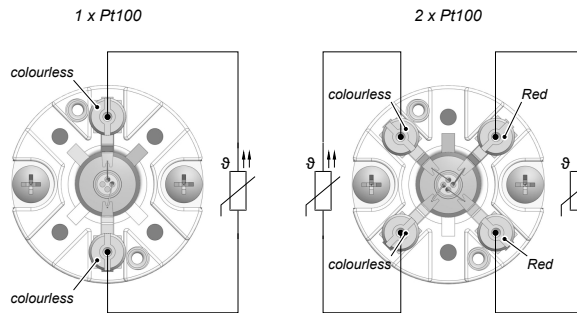
Measuring range of the 2-L transmitter

- 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

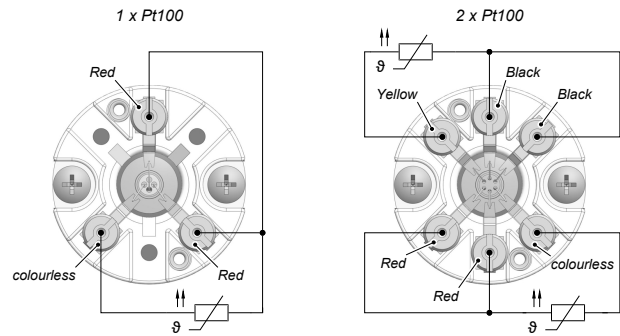


Pin assignment

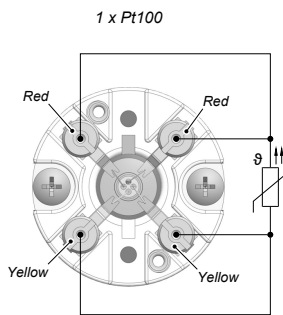
2-wire connection



3-wire connection

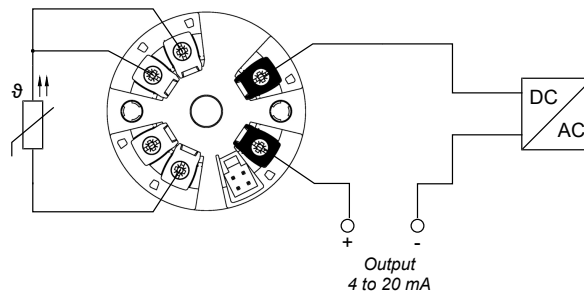


4-wire connection



Transmitter connection

1x Pt100 / 3-wire measuring insert + transmitter





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

