Thermowell DIN 43 772 Form 4

Solid drilled for welding
For stems with male thread

SF4

Application

Amongst others, thermowells are used to protect the thermometer stem from process-related chemical and/or mechanical loads. In addition, a thermowell remaining at the measuring point allows for easy dismounting of the thermometer for maintenance or repair.

Standard Versions

For thermometer stems with male thread, turnable or rigid, our models A4, B4, A4.1 and B4.1

Construction Type
Solid drilled, i.e. made completely out of one piece, with cone, for high process-related loads (flows, pressures, temperatures and vibrations)

Process Connection
For welding
Details see page 2

Connection to Thermometer Stem N
Female thread M 18x1.5, G ½ or G ¾
Details see page 2

Internal Diameter d1
Ø 7 mm suitable for stem Ø dF 6 mm
Ø 9 mm suitable for stem Ø dF 8 mm
Ø 11 mm suitable for stem Ø dF 10 mm
Ø 13 mm suitable for stem Ø dF 12 mm

Available combinations for the connection to the thermometer stem N and internal diameter d1, see page 2

Total Length L (Standardised Length)
110, 140, 170, 200, 260, 410 mm
Details and installation length U see page 2

Material
Stainless steel 316Ti (1.4571) or 1.7335 (13 CrMo 4-5)

Process Temperature/Process Pressure
Maximum permissible process temperature: 500 °C
Maximum permissible process pressure: 150 bar

The specific process conditions (medium, flow rate, pressure, temperature) and the thermowell version (dimension, material) might cause a reduction of the aforementioned maximum permissible values, see **load diagrams DIN 43 772**.
Upon request, we perform a **thermowell calculation** for your individual case (see Special Versions and Options).

Special Versions and Options

- Connection thread to thermometer stem N M 20x1.5 (instead of G ½), others upon request
- Suitable connection screw fitting, see data sheet 8.8201
- Suitable neck tube and suitable welding piece, see data sheet 8.8301
- Other thermowell Ø upon request
- Other thermowell lengths/installation lengths L/U upon request
- Other materials upon request
- Thermowell free of grease and oil
- Coating fitted to medium and medium temperature upon request
- Certificate of compliance with the order 2.1
- Test report 2.2
- Inspection certificate 3.1 for the material
- Inspection certificate 3.1 for the pressure test upon request
- Thermowell calculation for the specific case of application with certificate

Ordering Information

Please specify in your order:

Model	SF4
Connection to thermometer stem N	M 18x1.5, G ½ or G ¾
Internal diameter d1	7, 9, 11 or 13 mm
Total length L	e.g. 170
Installation length U	e.g. 133
Material	1.4571 or 1.7335
Example:	**SF4, N=G ¾, d1=11, L=170, U=133, 1.4571**

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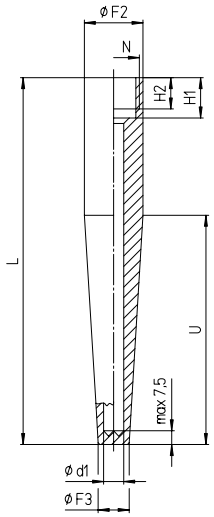
Dimensional Data, Length Specifications, Corresponding Thermometer Stems

Dimensional Data (mm)

SF4

Thermowell Diameter and Fitting Dimensions

F2	N	d1	F3	H1	H2
24 h 7	M18x1.5	7	12.5	16	13
26 h 7	G½ (M20x1.5)	7	12.5	19	15
		9	15		
		11	17		
32 h 11	G¾	11	17	22	17
		13	19		



Total Length Thermowell, Installation Length and Length Thermometer Stem

Standardised thermowell lengths, suitable stem lengths L

Standardised Thermowell Length		Suitable Stem Length			
Total length	Installation length	Model A4/B4			Model A 4.1/B 4.1
L^{+2}	U^{+2}	M18x1.5	G½B	G¾B	G¾B, G½B, M18x1.5
110	65	86	83	80	102
	73				
140	65	116	113	110	132
170	133	146	143	140	162
200	65	176	173	170	192
	125				
260	125	236	233	230	252
410	275	386	383	380	402

Non-standardised thermowell length

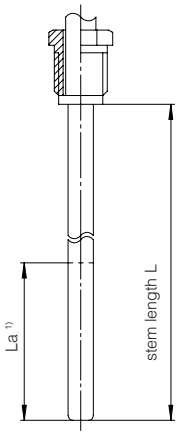
Calculation

- Thermowell length if stem is existent
  stem model A4/B4
  thermowell length L = L (stem) + H1 + 8 mm
  stem model A4.1/B4.1
  thermowell length L = L (stem) + 8 mm
- Stem length if thermowell is existent
  stem model A4/B4
  stem length L = L (thermowell) – H1 – 8 mm
  stem model A4.1/B4.1
  stem length L = L (thermowell) – 8 mm

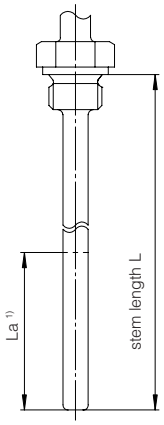
Thermometer Stem

Corresponding thermometer stems

models A4/B4
male thread
turnable
form 4 DIN EN 13 190

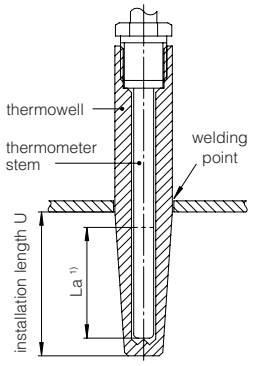


models A4.1/B4.1
male thread
rigid
form 6 DIN EN 13 190

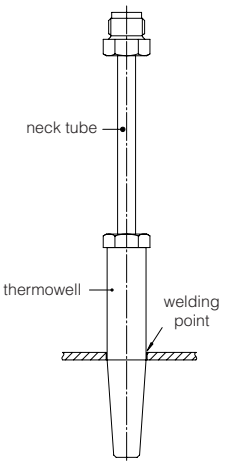


Installation examples

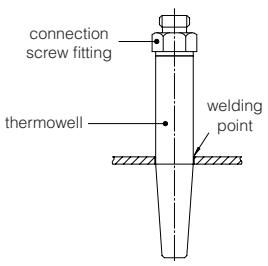
the installation length U of the thermowell has to be selected so that the active stem length La is surrounded by the medium



combination with neck tube HR for stem A3/B3 neck tube according to DIN 43 772



combination with connection screw fitting AV1



[1] La = active stem length. The active stem length La can be found in the thermometer data sheets.