

Thermowell DIN 43 772 Form 4F

SF4F

For flanging
For stems with male thread

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 dismantling 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

Thermowell (identical with thermowell model SF4, i.e. solid drilled with cone) with welded process connection flange, for high process-related loads (flows, pressures, temperatures and vibrations)

Process Connection

Connection flange according to DIN EN 1092-1

Sealing face form B1

Nominal width DN/nominal pressure PN

DN 50 PN 10 – 16

DN 50 PN 25 – 40

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)

200, 260, 410 mm

Details and installation length U1 see page 2

Material

Stainless steel 316Ti (1.4571)

Process Temperature/Process Pressure

Maximum permissible process temperature: 500 °C

Maximum permissible process pressure: corresponding to PN of the flange

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 M20x1.5 (instead of G ½), others upon request
- Suitable connection screw fitting, see data sheet 8.8201
- Suitable neck tube, see data sheet 8.8301
- Other thermowell Ø upon request
- Other thermowell lengths/installation lengths L/U1 and cone length U upon request
- Flanges according to other standards or other nominal widths 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	SF4F
Standard	e.g. DIN EN 1092-1
Nominal width/nominal pressure	DN 50, PN 10 – 16 or DN 50, PN 25 – 40
Sealing face	e.g. B1, B2, F
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. 200
Installation length U1	e.g. 130
Material	1.4571

Example:

SF4F, DIN EN 1092-1, DN 50,
PN 25, B1, N=G ½, d1=11,
L=200, U1=130, 1.4571

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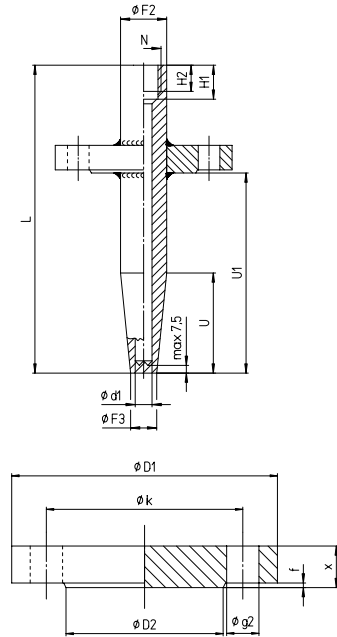
Dimensional Data, Length Specifications, Corresponding Thermometer Stems

Dimensional Data (mm)

SF4F

Thermowell Diameter and Fitting Dimensions

F2	N	d1	F3	H1	H2
24 h 7	M18x1.5	7	12.5	16	13
26 h 7	G $\frac{1}{2}$ (M20x1.5)	7	12.5	19	15
		9	15		
		11	17		
32 h 11	G $\frac{3}{4}$	11	17	22	17
		13	19		



Flange Dimensions DIN EN 1092-1: 2001

DN	PN	D1	D2	g2	k	x	f
50	10 – 16	165	102	4 x Ø 18	125	18	2
50	25 – 40	165	102	4 x Ø 18	125	20	2

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	Cone length	Model A4/B4			Model A4.1/B4.1
L ⁺²	U1 ⁺²	U ⁺²	M18x1.5	G $\frac{1}{2}$ B	G $\frac{3}{4}$ B	G $\frac{3}{4}$ B, G $\frac{1}{2}$ B, M18x1.5
200	130	65	176	173	170	192
		125				
260	190	125	236	233	230	252
410	340	275	386	383	380	402

Non-standardised thermowell length

Calculation

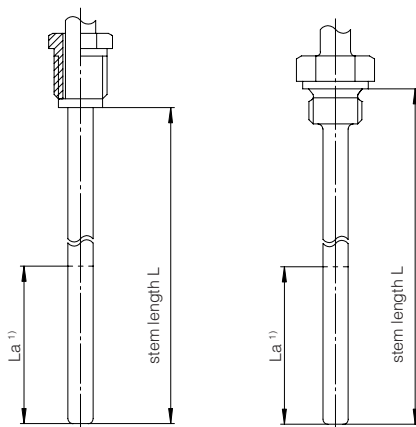
- Thermowell length if stem is existent
stem model A4/B4
thermowell length $L = L(\text{stem}) + H1 + 8\text{mm}$
stem model A4.1/B4.1
thermowell length $L = L(\text{stem}) + 8\text{mm}$
- Stem length if thermowell is existent
stem model A4/B4
stem length $L = L(\text{thermowell}) - H1 - 8\text{mm}$
stem model A4.1/B4.1
stem length $L = L(\text{thermowell}) - 8\text{mm}$

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

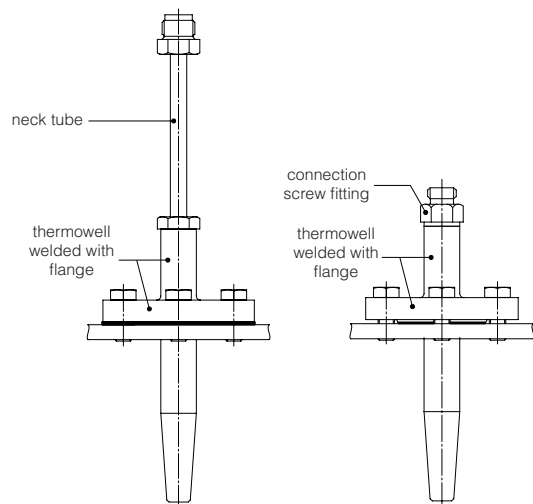
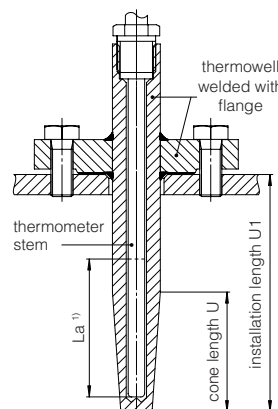


Installation examples

the installation length U1 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.