

# Thermowell DIN 43 772 Form 4F

for flanging  
for stem with male thread

Model  
SF4F

## Application

Thermowells are applied to protect thermometer stems against process-related chemical and / or mechanical loads. Furthermore, a thermowell that remains at the measuring point, allows for unproblematic dismantling of the thermometer for maintenance or repair purposes.

## 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 loads (flows, pressures, temperatures and vibrations).

## Process Connection

Connection flange according to DIN EN 1092-1.

Sealing face Form B1,

Nominal size DN / nominal pressure PN

DN 25 PN 10 – 40

DN 50 PN 10 – 16

DN 50 PN 25 – 40

## Connection to Thermometer Stem N

Female thread M18x1.5, G ½ or G ¾

See reverse side for details

## 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

See reverse side for available combinations of connections to thermometer stem N and internal diameter d1.

## Total Length L (standardised length)

200, 260, 410 mm

See reverse side for details and installation length U1.

## Material

1.4571 (316 L stainless steel)

## Process Temperature / Process Pressure

Maximum allowed process temperature: 500 °C

Maximum allowed process pressure: corresponding to PN of the flange

The specific process conditions (medium, flow rate, pressure, temperature) and the thermowell version (dimensions, material) can cause a reduction of the above mentioned maximum allowed values, see **load diagrams 43 772**.

Upon request, we carry out a **thermowell calculation** for your specific case of application (see special version and options).



## Special Versions and Options among others

- 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, see data sheet 8.8301
- Other thermowell-Ø upon request
- Other thermowell / installation lengths L / U1 and cone length U upon request
- Flanges according to other standards or other nominal sizes upon request
- Other materials upon request
- Thermowell free of grease and oil
- Coating adjusted to medium and medium temperature upon request
- Test report 2.1
- Inspection certificate 2.2
- Test certificate 3.1 for the material
- Test certificate 3.1 for the pressure test upon request

## Ordering Information

Model	SF4F
Process connection flange	DN 25, PN 10 – 40 DN 50, PN 10 – 16 or DN 50, PN 25 – 40
Nominal size / nominal pressure	DN / PN
Connection to thermometer stem N	M 18x1,5; G ½ or G ¾
Internal-Ø d1	7, 9, 11 or 13 mm
Total length	L
Installation length	U1
Material	1.4571

Example: SF4F, DN 50, PN 10 – 40, N = G ¾, d1 = 11, L = 200, U1 = 130, 1.4571



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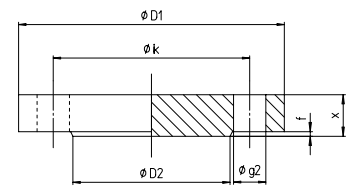
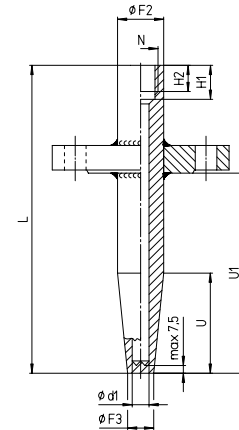
# Dimensions, Lengths, corresponding Thermometer Stems

## Dimensional Data (mm)

SF4F

### Thermowell Diameter and Connection Dimensions

F2	N	d1	F3	H1	H2
24 h 7	M 18x1.5	7	12.5	16	13
26 h 7	G 1/2 (M20x1.5)	9	15	19	15
		11	17		
32 h 11	G 3/4	13	19	22	17



### Flange Dimensions DIN EN 1092-1: 2001

DN	PN	D1	D2	g2	k	x	f
mm	bar	mm	mm	mm	mm	mm	mm
25	10 – 40	115	68	4x Ø 14	85	18	2
50	10 – 16	165	102	4x Ø 18	125	18	2
50	25 – 40	165	102	4x Ø 18	125	20	2

### Thermowell Total Length, Installation Length and Thermometer Stem Length

#### standardised thermowell lengths and suitable stem lengths L

Standardised Thermowell Length			Suitable Stem Length			
Total length	Install. length	Cone length	Model A4 / B4		Model A 4.1 / B 4.1	
L <sup>+2</sup>	U <sup>+2</sup>	U <sup>+2</sup>	M 18x1.5	G 1/2 B	G 3/4 B	G 3/4 B, G 1/2 B, M 18x1.5
200	130	65	176	173	170	192
		125				
260	190		236	233	230	252
410	340	275	386	383	380	402

#### Not standardised thermowell lengths

#### Calculation

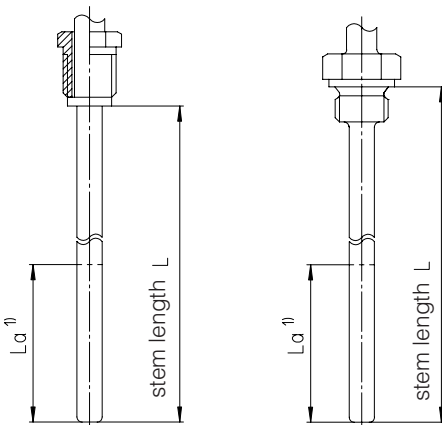
- Thermowell length with existent stem  
stem model A4 / B4  
thermowell length  $L = L(\text{stem}) + H1 + 8 \text{ mm}$   
stem model A4.1 / B4.1  
thermowell length  $L = L(\text{stem}) + 8 \text{ mm}$
- Stem length with existent thermowell  
stem model A4 / B4  
stem length  $L = L(\text{thermowell})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

### Thermometer Stem

#### corresponding thermometer stem

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

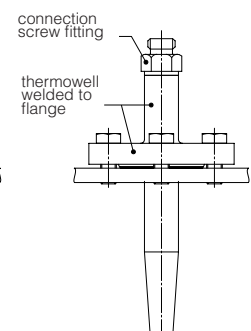
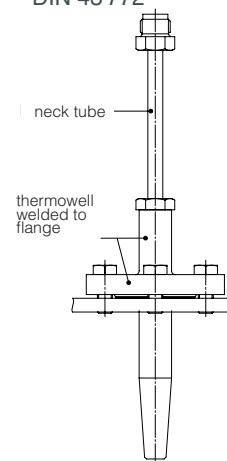
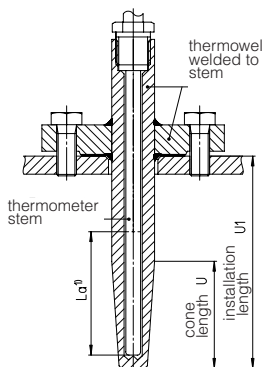


#### installation examples

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

Combination with connection screw fitting AV1

The installation length U1 of the thermowell has to allow for the active length La to be surrounded by the medium.



¹) La = active stem length

The active stem length La can be found in the thermometer data sheets.