

Thermowell Form 4.1F

SF4.1F

For flanging

For stems with union nut

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 union nut, our models A3 and B3

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

Male thread G ½B or G ¾B

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 (Standard)

200, 260, 320 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 ½B), others upon request
- 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	SF4.1F
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	G ½B or G ¾B
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: SF4.1F, DIN EN 1092-1, DN 50, PN 25, B1, N=G ½B, d1=11, L=200, U1=130, 1.4571

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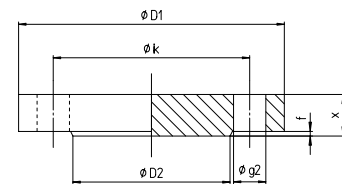
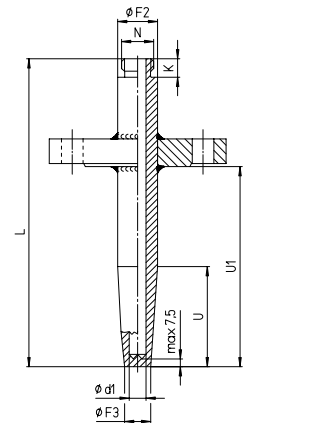
Dimensional Data, Length Specifications, Corresponding Thermometer Stems

Dimensional Data (mm)

SF4.1F

Thermowell Diameter and Fitting Dimensions

F2	N	d1	F3	K
26 h 7	G 1/2 B (M20x1.5)	7	12.5	12
		9	15	
		11	17	
32 h 11	G 3/4 B	11	17	14
		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

Standard thermowell lengths, suitable stem lengths L

Thermowell Length (Standard)			Suitable Stem Length
Total length	Installation length	Cone length	Model A3/B3
L ⁺²	U1 ⁺²	U ⁺²	
200	130	65	192
		125	
260	190	125	252
320	250	245	312

Other thermowell length

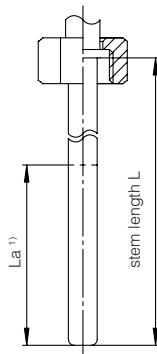
Calculation

- Thermowell length if stem is existent
stem model A3/B3
thermowell length $L = L(\text{stem}) + 8 \text{ mm}$
- Stem length if thermowell is existent
stem model A3/B3
stem length $L = L(\text{thermowell}) - 8 \text{ mm}$

Thermometer Stem

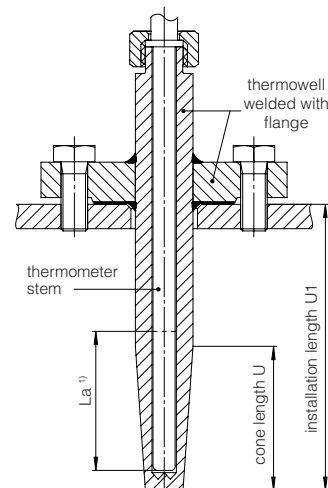
Corresponding thermometer stems

models A3/B3
union nut
form 5 DIN EN 13 190



Installation example

the installation length U1 of the thermowell has to be selected so that the active stem length La is surrounded by the medium



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