

Thermowell Form 4.1F

For flanging
for stem with union nut

Model
SF4.1F

Application

Thermowells are being applied to protect thermometer stems against process-related chemical and / or mechanical loads.

Furthermore a thermowell, which remains at the measuring point, enables the unproblematic dismounting 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 SF4.1, that means solid drilled with cone), with welded process connection flange for high loads by the process (flows, pressures, temperatures and vibrations).

Process Connection

Connection flange DIN EN 1092-1.
sealing face Form B1,
nominal size DN / nominal pressure PN
DN 50 PN 10-16
DN 50 PN 25-40

Connection to Thermometer Stem N

Male thread G $\frac{1}{2}$ or G $\frac{3}{4}$
Details see reverse side

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 thermometer stem N and internal diameter d1, see reverse side

Total Length L (Standard)

200, 260, 320 mm
Details and installation length U1, see reverse side

Material

1.4571 (316 stainless steel)

Process Temperature / Process Pressure

Maximum allowed process temperature: 500 °C
Maximum allowed process pressure: corresponding to PN of the flange

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

We can make a **thermowell calculation** for your concrete field of application (see special version and options) upon request.



Special Versions and Options among others

- Connection thread to thermometer stem N
M 20 x 1.5 (instead G $\frac{1}{2}$), others upon request
- Other thermowell-Ø upon request
- Other thermowell- / installation length L / U1 and cone length U upon request
- Flanges according to other norms 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	SF4.1F
Process connection flange	DN 50, PN 10-16 or DN 50, PN 25-40
Nom. size / nom. pressure	DN / PN
Connection to thermometer stem N	G $\frac{1}{2}$ B or G $\frac{3}{4}$ B
Innen-Ø d1	7, 9, 11 or 13 mm
Total length	L
Installation length	U1
Material	1.4571

Example: SF4.1F, DN 50, PN 10-40, N=G $\frac{3}{4}$ B, d1=11, L=200, U1=130, 1.4571



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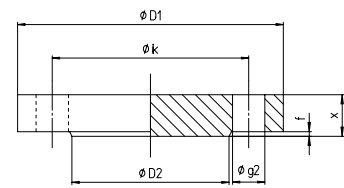
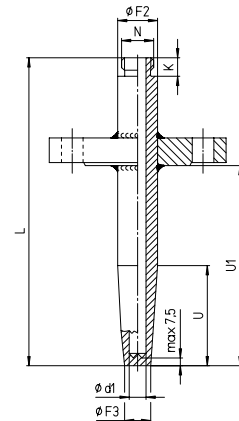
Dimensions, Lengths, corresponding Thermometer Stems

Dimensional Data (mm)

SF4.1F

Thermowell Diameter and Connection Dimensions

F2	N	d1	F3	K
26 h 7	G ½ B (M 20x1.5)	7	12.5	12
		9	15	
32 h11	G ¾ B	11	17	14
		13	19	



Flange Dimensions DIN EN 1092-1: 2001

DN	PN	D1	D2	g2	k	x	f
mm	bar	mm	mm	mm	mm	mm	mm
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

Normed thermowell lengths, suitable stem length L

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

Not normed thermowell lengths

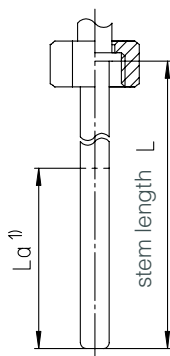
Calculation

- Thermowell length when existent stem stem model A3/B3
thermowell length L = L (stem)+8 mm
- Stem length when existent thermowell stem model A3/B3

Thermometer Stem

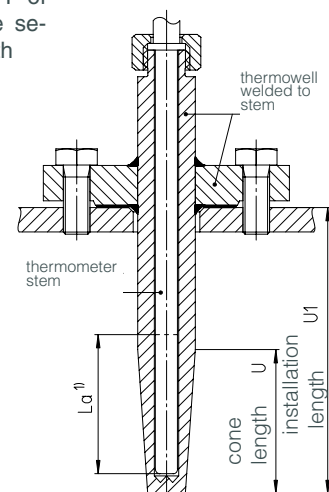
Corresponding thermometer stem

Models A3 / B3
union nut
Form 5 DIN EN 13 190



Installation examples

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



¹⁾La = active length

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

Technical changes, replacement of materials and errors excepted.