

Thermowell Form 4.1

Solid drilled for welding-in
for stem with union nut

Model
SF4.1

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

Solid drilled, that means completely manufactured of one piece, with cone, for high loads by the process (flows, pressures, temperatures and vibrations).

Process Connection

For welding-in
Details see reverse side.

Connection to Thermometer Stem N

Male thread G ½ B or G ¾ B
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)

110, 140, 170, 200, 260, 320 mm
Details and installation length U, see reverse side.

Material

1.4571 (316 stainless steel), 1.7335 (13 CrMo 4-5)

Process Temperature / Process Pressure

Maximum allowed process temperature: 500 °C
Maximum allowed process pressure: 150 bar

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 of G½), others upon request
- Other thermowell-Ø upon request
- Other thermowell- / installation lengths L / U 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 (copy of the material quality certificate of the basic material with re-stamping certificate)
- Test certificate 3.1 for the pressure test (max. installation length U= 300 mm, pressure test with internal water, max. 150 bar, 3 minutes)
- Thermowell calculation for the concrete case of application with certificate

Ordering Information

Model	SF4.1
Connection to thermometer stem N	G½B or G¾B
Internal-Ø d1	7, 9, 11 or 13 mm
Total length	L
Installation length	U
Material	1.4571 or 1.7335

Example: SF4.1, N=G¾B, d1=11, L= 170, U=133, 1.4571



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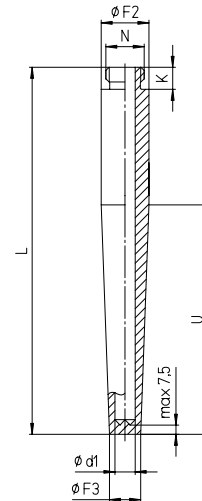
Dimensions, Lengths, corresponding Thermometer Stems

Dimensional Data (mm)

SF4.1

Thermowell Diameter and Connection Dimensions

F2	N	d1	F3	K
26 h 7	G 1/2 B (M20x1.5)	7	12,5	12
		9	15	
		11	17	
32 h11	G 3/4 B	13	19	14



Thermowell Total Length, Installation Length and Thermometer Stem Length

Standard thermowell length, suitable stem length L

Thermowell length (Standard)		Suitable thermowell length Model A 3 / B 3
Total length L ⁺²	Install. length U ⁺²	
110	65	102
	73	
140	65	132
170	133	162
200	65	192
	125	
260	125	252
320	245	312

Other thermowell length

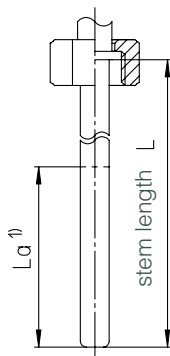
Calculation

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

Thermometer Stem

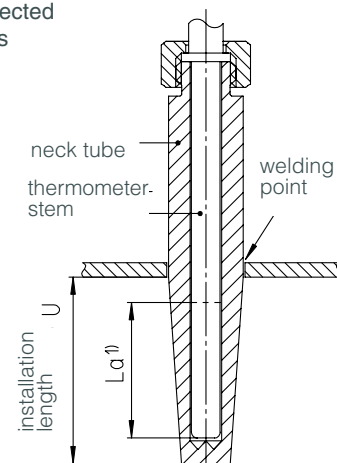
Corresponding thermometer stem

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



Installation examples

The installation length U 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