

Thermowell DIN 43 772 Form 5

Fabricated for screwing-in
for stem with male thread

Model
SF5

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 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 und B4.1

Construction Type

Fabricated, that means screw fitting welded to thermowell resp. soldered for brass, for low to medium loads by the process (flows, pressures, temperatures and vibrations).

Process Connection E

Male thread
G ½ B or G ¾ B;
½" NPT or ¾" NPT
Details see reverse side.

Connection to Thermometer Stem N

Female thread G ½ or G ¾
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 of the connections E+N and internal diameter d1, see reverse side.

Total Length L (normed Length)

110, 170, 260, 410 mm
Details and installation length U1 see reverse side.

Material

1.4571 (316 stainless steel) or brass 2.0401 (CuZn36Pb3)

Process Temperature / Process Pressure

Maximum allowed process temperature: 500 °C
Maximum allowed process pressure: 1.4571: 40 bar
brass: 25 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

- Other combinations:
Process connection E / connection to thermometer stem N:
M 20 x 1.5 M 20 x 1.5
M 27 x 2 M 20 x 1.5
M 27 x 2 M 27 x 2
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 length L / U1 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 upon request (copy of the material quality certificate of the basic material with re-stamping certificate)
- Test certificate 3.1 for the pressure test upon request

Ordering Information

Model	SF5
process connection E	G ½ B or G ¾ B; ½" NPT or ¾" NPT
Connection to thermometer stem N	G ½ or G ¾
Internal-Ø d1	7, 9, 11 or 13 mm
Total length	L
Installation length	U1
Material	1.4571 or Messing

Example: SF5, E=G ½ B, N=G ½, d1=11, L=170, U1=142, 1.4571



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8.8120

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Dimensions, Lengths, corresponding Thermometer Stems

Dimensional Data (mm)

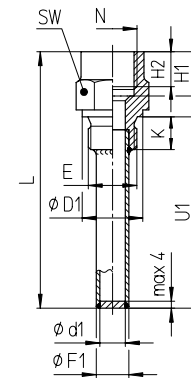
SF5

Thermowell Diameter and Connection Dimensions

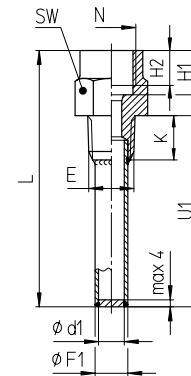
E	N	d1	F1	D1	H1	H2	K	SW	
G 1/2 B (M20x1.5)	G 1/2 (M20x1.5)	7	12	26 (25)	19	15	14	27	
		9	14						
		11	14						
G 3/4 B (M27x2)	G 1/2 (M20x1.5)	7	12	32	19	15	16	32	
		9	14						
		11	14						
	G 3/4 (M27x2)	7	12		22	17	16		32
		9	14						
		11	14						
1/2" NPT ¹⁾	G 1/2	7	12	-	19	15	19	27	
		9	14						
		11	14						
3/4" NPT ¹⁾	G 1/2	7	12	-	19	15	19	27	
		9	14						
		11	14						
		13	16						

¹⁾ Norm designation 1/2 - 14 NPT, resp. 3/4 - 14 NPT

Process connection: cylindrical thread



Process connection: conical thread



Thermowell Total Length, Installation Length and Thermometer Stem Length

Normed thermowell length, suitable stem length L

Normed thermowell length Total length	Install. length	suitable stem length		
		Model A4 / B4		Model A4.1 / B4.1
		G 1/2 B	G 3/4 B	G 1/2 B, G 3/4 B
L ⁺¹⁾	U1 ⁺²⁾			
110	82	86	83	105
170	142	146	143	165
260	232	236	233	255
410	382	386	383	405

¹⁾ L = U1 + 28 mm

Not normed thermowell lengths

Calculation

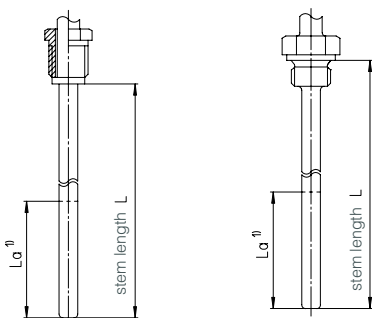
- Thermowell length when existent stem
stem model A4/B4
thermowell length $L = L(\text{stem}) + H1 + 5 \text{ mm}$
stem model A4.1/B4.1
thermowell length $L = L(\text{stem}) + 5 \text{ mm}$
- Stem length when existent thermowell
stem model A4/B4
stem length $L = L(\text{thermowell}) - H1 - 5 \text{ mm}$
stem model A4.1/B4.1
stem length $L = L(\text{thermowell}) - 5 \text{ mm}$

Thermometer Stem

Corresponding thermometer stem

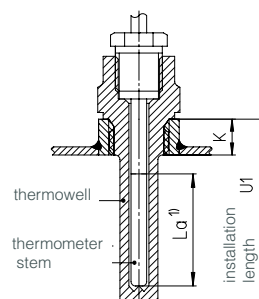
Models A4 / B4
male thread, turnable
Form 4 DIN 13 190

Models A4.1 / B4.1
male thread, rigid
Form 6 DIN 13 190

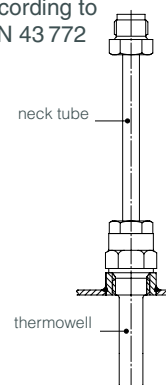


Installation examples

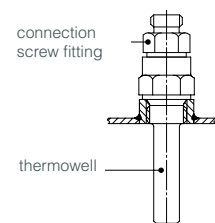
The installation length U1 of the thermowell has to be selected that the active length La is surrounded by the medium. $U1 \geq La + K + 5 \text{ mm}$



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



Combinations with connection screw fitting AV1



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.