

# Thermowell DIN 43 772 Form 5

SF5

Fabricated for screwing-in  
For stems with male thread

## 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 male thread, turnable or rigid, our models A4, B4, A4.1 and B4.1

## Construction Type

Fabricated, i.e. screw fitting welded with thermowell (for brass: soldered), for low to medium process-related loads (flows, pressures, temperatures and vibrations)

## Process Connection E

Male thread

G ½ B or G ¾ B

½" NPT or ¾" NPT

Details see page 2

## Connection to Thermometer Stem N

Female thread G ½ or G ¾

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 connections E+N and internal diameter d1, see page 2

## Total Length L (Standardised Length)

110, 170, 260, 410 mm

Details and installation length U1 see page 2

## Material

Stainless steel 316Ti (1.4571) or brass 2.0401 (CuZn36Pb3)

## Process Temperature/Process Pressure

Maximum permissible process temperature: 500 °C

Maximum permissible process pressure: 316Ti: 40 bar  
brass: 25 bar

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

- Other combinations:  
process connection E / connection to thermometer stem N:  
M20x1.5 / M20x1.5  
M27x2 / M20x1.5  
M27x2 / M27x2  
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 lengths/installation lengths L/U1 upon request
- Other materials upon request
- Thermowell free of grease and oil
- Certificate of compliance with the order 2.1
- Test report 2.2
- Inspection certificate 3.1 for the material upon request
- Inspection certificate 3.1 for the pressure test
- Thermowell calculation for the specific case of application with certificate

## Ordering Information

Please specify in your order:

<b>Model</b>	SF5
<b>Process connection E</b>	G ½ B or G ¾ B ½" NPT or ¾" NPT
<b>Connection to thermometer stem N</b>	G ½ or G ¾
<b>Internal diameter d1</b>	7, 9, 11 or 13 mm
<b>Total length L</b>	e.g. 170
<b>Installation length U1</b>	e.g. 142
<b>Material</b>	1.4571 or 2.0401

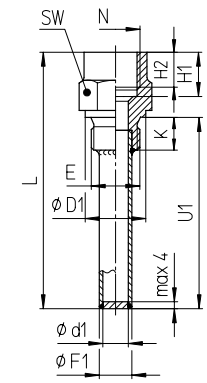
**Example:** SF5, E=G ½ B, N=G ½, d1=11, L=170, U1=142, 1.4571

# Dimensional Data, Length Specifications, Corresponding Thermometer Stems

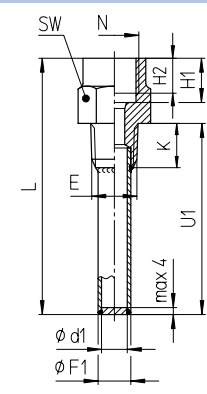
Dimensional Data (mm)								
SF5								
Thermowell Diameter and Fitting Dimensions								
E	N	d1	F1	D1	H1	H2	K	SW
G 1/2 B (M20x1.5)	G 1/2 (M20x1.5)	7	12	26 (25)	19	15	14	27
		9	14					
		11						
G 3/4 B (M27x2)	G 1/2 (M20x1.5)	7	12	32	19	15	16	32
		9	14					
		11						
	G 3/4 (M27x2)	7	12					
		9	14					
		11	14					
1/2" NPT <sup>1)</sup>	G 1/2	7	12	-	19	15	19	27
		9	14					
		11						
3/4" NPT <sup>1)</sup>	G 1/2	7	12	-	19	15	19	27
		9	14					
		11	14					
		13	16					

## Process Connection

### Cylindrical thread



### Conical thread



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

Standardised thermowell lengths, suitable stem lengths L				
Standardised Thermowell Length		Suitable Stem Length		
Total length	Installation length	Model A4/B4		Model A4.1/B4.1
L <sup>+2)</sup>	U1 <sup>+2)</sup>	G 1/2 B	G 3/4 B	G 1/2 B, G 3/4 B
110	82	86	83	105
170	142	146	143	165
260	232	236	233	255
410	382	386	383	405

## Non-standardised thermowell length

- ### Calculation
- Thermowell length if stem is existent  
 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 if thermowell is existent  
 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 stems**

models A4/B4  
male thread  
turnable  
form 4 DIN EN 13 190

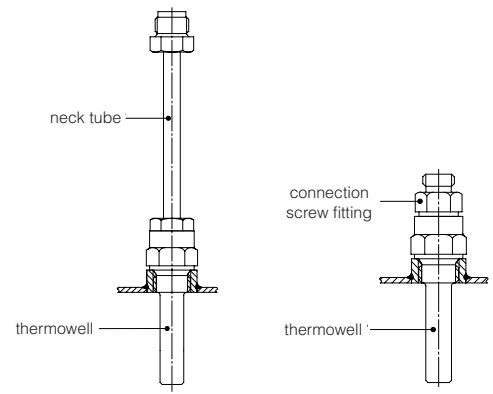
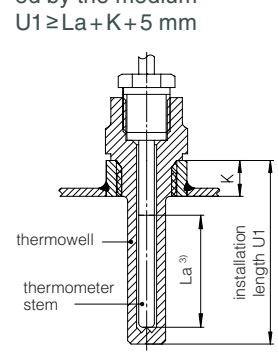
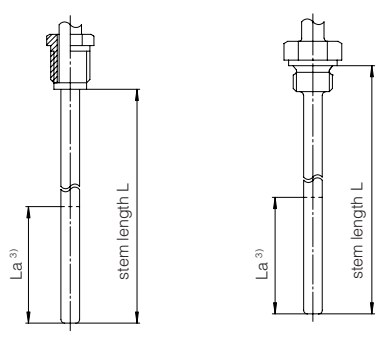
models A4.1/B4.1  
male thread  
rigid  
form 6 DIN EN 13 190

**Installation examples**

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

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

combination with connection screw fitting AV1



<sup>1)</sup> standard designation 1/2 - 14 NPT or 3/4 - 14 NPT  
<sup>2)</sup> L = U1 + 28 mm  
<sup>3)</sup> La = active stem length. The active stem length La can be found in the thermometer data sheets.