

# Thermowell DIN 43 772 Form 8

SF8

Fabricated for screwing-in  
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

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

## Process Connection E

Male thread

G ½B or G ¾B

½" NPT or ¾" NPT

Details see page 2

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

## Total Length L (Standardised Length)

101, 138, 198, 288, 438 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: 40 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
- 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>	SF8
<b>Process connection E</b>	G ½B or G ¾B ½" NPT or ¾" NPT
<b>Connection to thermometer stem N</b>	G ½B or G ¾B
<b>Internal diameter d1</b>	7, 9, 11 or 13 mm
<b>Total length L</b>	e.g. 138
<b>Installation length U1</b>	e.g. 110
<b>Material</b>	1.4571

**Example:** SF8, E=G ½B, N=G ½B, d1=11, L=138, U1=110, 1.4571

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**ARMANO**

ARMANO Messtechnik GmbH

### Location Beierfeld

Am Gewerbepark 9 • 08344 Grünhain-Beierfeld  
Tel.: +49 3774 58 – 0 • Fax: +49 3774 58 – 545  
mail@armano-beierfeld.com

### Location Wesel

Manometerstraße 5 • 46487 Wesel-Ginderich  
Tel.: +49 2803 9130 – 0 • Fax: +49 2803 1035  
mail@armano-wesel.com

**8.8130**

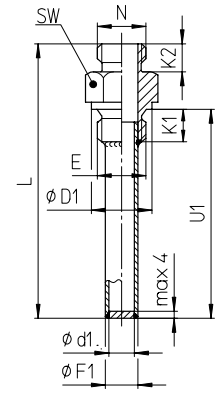
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# Dimensional Data, Length Specifications, Corresponding Thermometer Stems

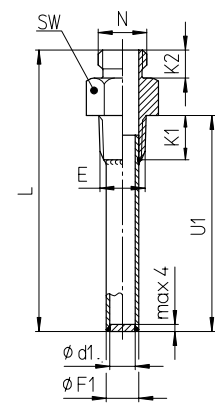
Dimensional Data (mm)							
SF8							
Thermowell Diameter and Fitting Dimensions							
E	N	d1	F1	D1	K1	K2	SW
G ½ B (M20x1.5)	G ½ B (M20x1.5)	7	12	26 (25)	14	12	27
		9	14				
		11					
G ¾ B (M27x2)	G ½ B (M20x1.5)	7	12	32	16	12	32
		9	14				
		11					
	G ¾ B (M27x2)	7	12			14	
		9	14				
		11	14				
½" NPT <sup>1)</sup>	G ½ B	7	12	-	19	12	27
		9	14				
		11					
¾" NPT <sup>1)</sup>	G ½ B	7	12	-	19	12	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 A3/B3
L <sup>+1,2)</sup>	U1 <sup>+2)</sup>	
101	73	96
138	110	133
198	170	193
288	260	283
438	410	433

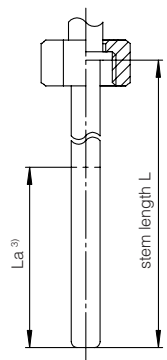
### Non-standardised thermowell length

- Calculation**
- Thermowell length if stem is existent  
thermowell length  $L = L(\text{stem}) + 5 \text{ mm}$
  - Stem length if thermowell is existent  
stem length  $L = L(\text{thermowell}) - 5 \text{ mm}$

## Thermometer Stem

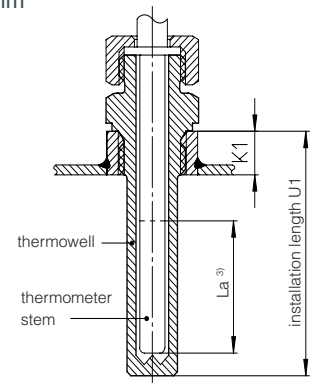
### Corresponding thermometer stems

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  
 $U1 \geq La + K1 + 5 \text{ mm}$



<sup>1)</sup> standard designation ½ - 14 NPT or ¾ - 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.