

# Thermowell with Clamping Ring Connection

**SK1**

Fabricated for screwing-in  
For plain stems

## 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 plain thermometer stems, our models A1 and B1

### 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

Clamping ring fitting stainless steel 316Ti (1.4571)

### 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 process connection E and internal diameter d1, see page 2

### Total Length L (Standard)

110, 170, 260, 410 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

- Process connections: M20x1.5 (instead of G ½B) or M27x2 (instead of G ¾B) 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>	SK1
<b>Process connection E</b>	G ½B or G ¾B ½" NPT or ¾" NPT
<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

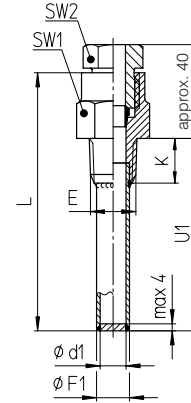
**Example:** SK1, E=G ½B, d1=11, L=170, U1=142, 1.4571

# Dimensional Data, Length Specifications, Corresponding Thermometer Stems

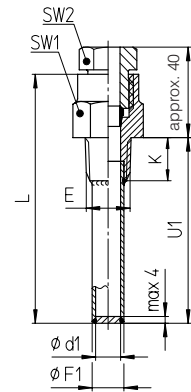
Dimensional Data (mm)						
SK1						
Thermowell Diameter and Fitting Dimensions						
E	d1	F1	D1	K	SW1	SW2
G ½ B (M20x1.5)	7	12	26 (25)	14	27	22
	9	14				
	11					
G ¾ B (M27x2)	7	12	32	16	32	22
	9	14				
	11	16				
½" NPT <sup>1)</sup>	7	12	-	19	27	22
	9	14				
	11					
¾" NPT <sup>1)</sup>	7	12	-	19	27	22
	9	14				
	11	16				

## Process Connection

### Cylindrical thread



### Conical thread



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

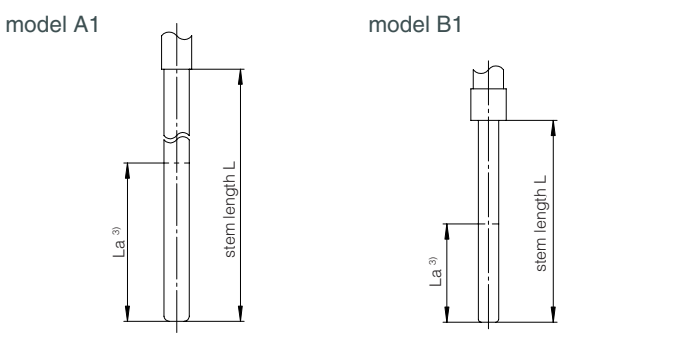
Standard thermowell lengths, suitable stem lengths L		
Thermowell Length (Standard)		Suitable Stem Length
Total length	Installation length	Model A1/B1
L <sup>+1 2)</sup>	U1 <sup>+2</sup>	
110	82	≥ 120
170	142	≥ 180
260	232	≥ 270
410	382	≥ 420

## Other thermowell length

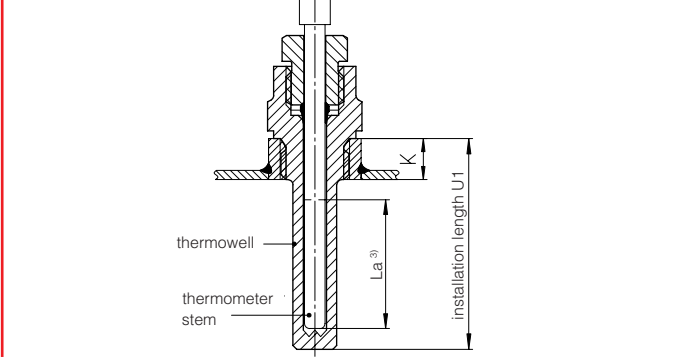
- Calculation**
- Thermowell length if stem is existent  
thermowell length  $L \leq L(\text{stem}) - 10 \text{ mm}$
  - Stem length if thermowell is existent  
stem length  $L \geq L(\text{thermowell}) + 10 \text{ mm}$

## Thermometer Stem

models A1/B1  
plain stem  
form 1 DIN EN 13 190



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



<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.