

Thermowell with Clamping Ring Connection

Fabricated for screwing-in
for plain stems

Model
SK1

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 plain thermometer stems, our models A1 or B1

Construction Type

Fabricated that means screw fitting welded to thermowell, 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

Clamping ring fitting 1.4571 (316 stainless steel)

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 process connection E and internal diameter d1, see reverse side.

Total Length L (Standard)

110, 170, 260, 410 mm

Details and installation length U1 see reverse side

Material

1.4571 (316 stainless steel)

Process Temperature / Process Pressure

Maximum allowed process temperature: 500 °C

Maximum allowed process pressure: 40 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

- Process connections M 20 x 1.5 (instead of G ½ B) or M 27 x 2 (instead of G ¾ B) others upon request
- Other thermowell-Ø upon request
- Other thermowell- / installation lengths 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
- Test certificate 3.1 for the pressure test upon request

Ordering Information

Model	SK1
Process connection E	G ½ B or G ¾ B; ½" NPT or ¾" NPT
Internal-Ø d1	7, 9, 11 or 13 mm
Total length	L
Installation length	U1
Material	1.4571

Example: SK1, E=G ½ B, d1=11, L= 138, U1=110, 1.4571



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8.8140

02/11

Dimensions, Lengths, corresponding Thermometer Stems

Dimensional Data (mm)

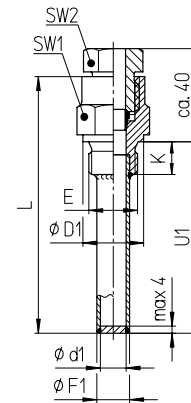
SK1

Thermowell Diameter and Connection Dimensions

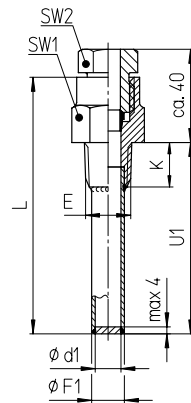
E	d1	F1	D1	K	SW1	SW2
G 1/2 B (M 20x1.5)	7	12	26 (25)	14	27	22
	9	14				
	11	14				
G 3/4 B (M 27x2)	7	12	32	16	32	
	9	14				
	11	16				
1/2"NPT ¹⁾	7	12	-	-	-	
	9	14				
	11	14				
3/4"NPT ¹⁾	7	12	-	19	27	
	9	14				
	11	16				

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

Standard thermowell lengths, suitable stem lengths L

Standard thermowell length Total length	Standard thermowell length Install. length	Suitable stem length Model A1 / B1
L ⁺¹⁾	U1 ⁺²⁾	
110	82	≥ 120
170	142	≥ 180
260	232	≥ 270
410	382	≥ 420

¹⁾ L = U1 + 28 mm

Other thermowell lengths

Calculation

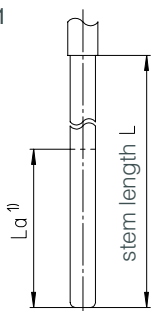
- Thermowell length when existent stem thermowell length $L \leq L(\text{stem}) - 10 \text{ mm}$
- Stem length when existent thermowell stem length $L \geq L(\text{thermowell}) + 10 \text{ mm}$

Thermometer Stem

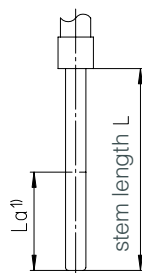
Corresponding thermometer stem

Models A1 / B1
plain stem,
Form 1 DIN 13 190

Model A1

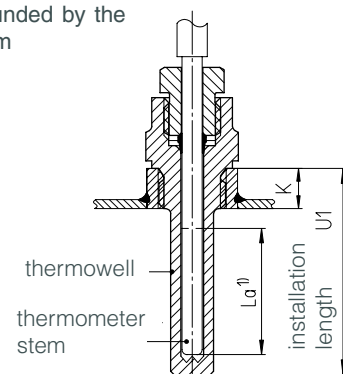


Model B1



Installation example

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



¹⁾L_a = active stem length

The active stem length L_a can be found on the thermometer data sheets.

Technical changes, replacement of materials and errors excepted.