

Thermowells with Clamping Ring Connection

with Male Thread Process Connection; for Plain Thermometer Stems Type A1,
Fabricated Type (Model SK1) and Solid Drilled Type (Model SK2)

Application

Thermowells are applied to protect thermometer stems against difficult chemical and / or mechanical process conditions. Furthermore it is far easier to dismount a thermometer e.g. for repair or other reasons when a thermowell stays at the measuring point.

Thermowells with clamping ring connection have been developed as a solution for plain thermometer stems model A1, for which none of the standard thermowells acc. to DIN EN fit.

The solid drilled version SK 2 is suitable for difficult process conditions (pressure, temperature, flow rate, medium), model SK1 for low to medium load.

Standard Configuration

Clamping Ring Connection

Material: 316 stainless steel (1.4571)
Instrument connection: Clamping ring
Process connection: G ½ B or G ¾ B (½" or ¾" BSP male)

Thermowell Material

316 stainless steel (1.4571)

Thermowell Diameter

Model SK1

Inside-Ø 7 mm / .27" (Outside-Ø 12 mm [.47"], G ½ B or G ¾ B)
Ø 9 mm / .35" (Outside-Ø 14 mm [.55"], G ½ B or G ¾ B)
Ø 11 mm / .43" (Outside-Ø 14 mm [.55"], G ½ B or G ¾ B)
Ø 13 mm / .51" (Outside-Ø 16 mm [.63"], G ¾ B)

Model SK2

Inside-Ø 7 mm / .27" (Outside-Ø 17 mm [.67"], G ½ B or G ¾ B)
Ø 9 mm / .35" (Outside-Ø 17 mm [.67"], G ½ B or G ¾ B)
Ø 11 mm / .43" (Outside-Ø 17 mm [.67"], G ½ B)
(Outside-Ø 19 mm [.75"], G ¾ B)
Ø 13 mm / .51" (Outside-Ø 20 mm [.79"], G ¾ B)

Thermowell Length L

110, 170, 260, or 410 mm
4.33", 6.69", 10.24", or 16.14" (compare overleaf)

Insertion Length

82, 142, 232, or 382 mm (compare overleaf)
3.23", 5.59", 9.13", or 15.04

Temperature Limitations

Process temperature max. +600 °C (1,112 °F) for 316 stainl. steel (1.4571), with further limitations depending on thermowell version (dimensions, material) and operation conditions (pressure, temperature, flow rate, medium)

Max. Allowed Working Pressure

Model SK1: max 40 bar, model SK2 max. 150 bar at static pressure (valid only for 1.4571), with further limitations depending on thermowell version (dimensions, material) and operation conditions (pressure, temperature, flow rate, medium)

Model SK1

(Fabricated, i.e. screw fitting welded to the thermowell resp. soldered when material = brass)

Model SK2

(Solid drilled, i.e. completely manufactured from one piece)

Special Options

- Other thermowell diameter
- Other thermowell length upon request
- Other materials upon request
- Inspection certificate for the material / stamp confirmation certificate upon request

How to Order:

Please note the data sheet of the thermometer for the information about how to order the thermometer and stem. Additionally requested ordering information for the thermowell (separate item):

- Model: **SK1 or SK2**
- Inside-Ø d1: **7, 9, 11, or 13 mm**
(.27", .35", .43", or .51")
- Process connection: **G ½ B (½" BSP-M), G ¾ B (¾" BSP-M)**
- Material: **1.4571**, others see above

Examples for Ordering Information:

- SK2, d1= 9, G ½ B, U1=232 (L=260 mm), 1.4571
- SK1, d1=.43", ¾" BSP, U1=15.04" (L=16.14"), 316 st.st.

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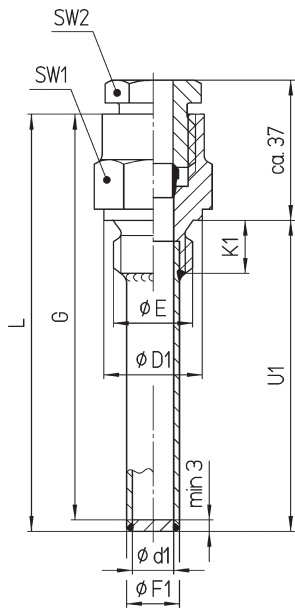
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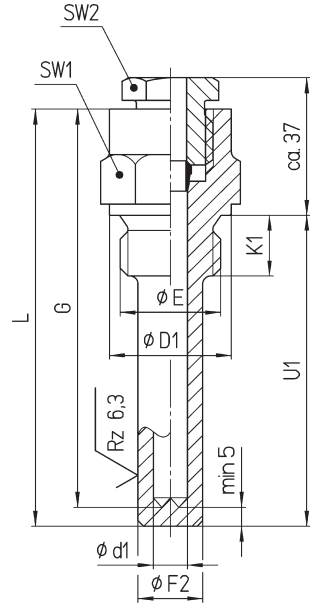
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Versions, Dimensions and Weight

Thermowell model SK1,
fabricated

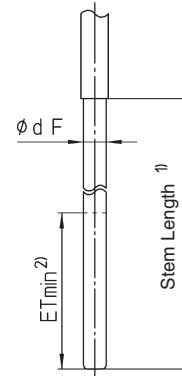


Thermowell model SK2,
solid drilled



Suitable thermometer stem A1 ("temperature detecting element") compare data sheets 8210, 8220, 8230, 8240:

A1 plain stem



- 1) Stem A1 has to be longer than the complete thermowell length L.
- 2) ETmin, the minimum immersion length of the stem (= l2 acc. DIN EN 13190) has to be considered when choosing thermowell and stem, compare table below resp. data sheet of the thermometers and stems.

Thermowell Diameter (mm / inches) and Connections

Inside- Ø d1	SK1 Outside-Ø F1	SK2 Outside-Ø F2	E	K1	SW1	SW2
7 / .27	12 / .47	17 / .67	G ½ B ½" BSP-M	14 / .55	27 / 1.06	22 / .87
9 / .35	14 / .55					
11 / .43	14 / .55					
7 / .27	12 / .47	17 / .67	G ¾ B ¾" BSP-M	16 / .63	32 / 1.26	
9 / .35	14 / .55					
11 / .43	19 / .75					
13 / .51	16 / .63	20 / .79				

**Stem-Ø and Minimum Immersion Length ETmin*
(mm / inches)**

Ø dF A4, A4.1	Rigid stem or capillary line ≤ 5 m		Capillary line > 5 up to max. 15 m**	
	≤ 500 °C ≤ 932 °F	> 500 °C > 932 °F	≤ 500 °C ≤ 932 °F	> 500 °C > 932 °F
6 .24"	120 4.72	285 11.22	190 7.48	570 22.44
8 .31"	75 2.95	165 6.50	115 4.53	320 12.60
10 .39"	45 1.77	105 4.13	80 3.15	200 7.87
12 .47"	35 1.38	75 2.95	53 2.09	150 5.90

* corresponding to l2 acc. to DIN EN 13190
** not for all temperature ranges!

Length (mm / inches) of Thermowells Models SK1 and SK2

L +2 0	Insertion length thermowell U1 +2 0	G +1 0	Stem length (> L)
110 / 4.33	82 / 3.23	105 / 4.13	> 110 / 4.33
170 / 6.69	142 / 5.59	165 / 6.50	> 170 / 6.69
260 / 10.24	232 / 9.13	255 / 10.04	> 260 / 10.24
410* / 16.14	382* / 15.04	405* / 15.94	> 410 / 16.14

* model SK1 only