

# Thermowells

## Fabricated, with Flange

### Thermometers

per WIKA Standard • Model SW500F

#### Application

The thermowells model SW500F are flange-fitted into the process. They are suitable for low and medium process loads, that might occur as a result of flow, temperature and process pressure influences or vibrations.

#### Standard features

##### Thermowell material

Stainless steel 1.4571

##### Flange

per DIN 2527 with sealing face Form C per DIN 2526  
per ASME B16.5 with sealing face Form RF

##### Nominal diameter

per DIN: DN 25, DN 40, DN 50  
per ASME: 1", 1 ½"

##### Pressure rating

per DIN: PN 16-40  
per ASME: 150 lbs, 300 lbs, 600 lbs

##### Instrument connection

Female thread G ½, ½ NPT

##### Bore size

Ø 7 mm, Ø 9 mm, Ø 11 mm, Ø 12.2 mm

##### Insertion length $U_1$

100, 160, 200, 250, 300, 400, 500 mm

##### Total length L

Insertion length + 45 mm

##### Maximum process temperature <sup>1)</sup>

600 °C with thermowell material stainless steel 1.4571

##### Maximum process pressure (static) <sup>1)</sup>

40 bar with thermowell material stainless steel 1.4571



#### Optional extras

- Other dimensions and materials
- Quality certificates
- Wake frequency calculations according to Dittrich/Klotter are recommended in critical applications. WIKA offer this as an engineering service.

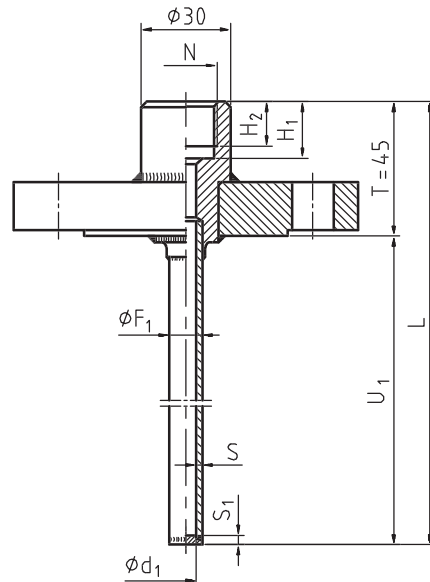
Following process data are necessary for the calculation:

- Process pressure (in bar or psi)
- Process temperature (in °C or °F)
- Flow rate (in m/s)
- Density (in kg/m<sup>3</sup>)
- Dimensions and material of thermowell

1) Ratings depends on below parameters:

- Process medium
- Process pressure and temperature
- Flow rate
- Design of thermowell (dimensions, material)

## Dimensions



3709 694.01

## Legend:

- H<sub>1</sub> Bore depth for female thread
- H<sub>2</sub> Length of female thread
- L Total length
- N Instrument connection
- S Wall thickness
- S<sub>1</sub> Tip thickness
- T Connection length
- U<sub>1</sub> Insertion length
- ∅ d<sub>1</sub> Bore size
- ∅ F<sub>1</sub> Thermowell outer diameter

Dimensions in mm								Weight in kg (flange DN25 PN 16-40)	
N	∅ d <sub>1</sub>	∅ F <sub>1</sub>	H <sub>1</sub>	H <sub>2</sub>	S	S <sub>1</sub>	T	U <sub>1</sub> = 100 mm	U <sub>1</sub> = 500 mm
G ½	7	12	19	15	2.5	3.5	45	1.470	1.710
	9				1.5	2.5		1.450	1.610
	11	15			3	4		1.500	1.860
	12.2				2	3		1.480	1.740
½ NPT	7	12	-	-	2.5	3.5		1.470	1.710
	9				1.5	2.5		1.450	1.610
	11	15			3	4		1.500	1.860
	12.2				2	3		1.480	1.740
						1.4	2.5	1.460	1.620
						1.4	2.5	1.460	1.620

additional weight with other flange in kg		
DN40	PN16-40	0.760
DN50	PN16-40	1.630
1"	150 lbs	-0.460
	300 lbs	0.040
	600 lbs	0.220
1 ½ "	150 lbs	0.220
	300 lbs	1.340
	600 lbs	1.850

## Suitable stem lengths of mechanical thermometers

### Dial thermometers

Design of connection	Stem length l <sub>1</sub>	
S/4/5	l <sub>1</sub> = L - 10 mm	or l <sub>1</sub> = U <sub>1</sub> + T - 10 mm
2	l <sub>1</sub> = L - 30 mm	or l <sub>1</sub> = U <sub>1</sub> + T - 30 mm

## Ordering information

State: Model / Material / Flange / Instrument connection / Bore size / Thermowell outer diameter / Insertion length U<sub>1</sub> /  
Optional extras required

Specifications and dimensions given in this leaflet are correct at the time of printing.  
Modifications may take place and materials specified may be replaced by others without prior notice.



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