



# Thermowells

Solid Machined, with Flange

Thermometers

per International Standard • Model SI400F

## Application

The thermowells model SI400F are flange-fitted into the process. They are suitable for high process loads, that might occur as a result of flow, temperature and process pressure influences or vibrations. These thermowells are used for mechanical thermometers as well as for electrical thermometers.

## Standard features

### Thermowell material

Stainless steel 316L, 316Ti

### Flange

per ASME B16.5 with sealing face Form RF or Form RTJ

### Nominal diameter

1", 1 ½", 2"

### Pressure rating

150 lbs, 300 lbs, 600 lbs, 900 - 1500 lbs

### Instrument connection

Female thread ½ NPT, G ½

### Bore size

Ø 6.6 mm, Ø 8.5 mm

### Insertion length U,

inch: 4, 7, 10, 13, 16, 22  
equivalent approx. mm: 100, 180, 255, 330, 405, 560

### Total length L

Insertion length + 2 ¼"

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

600 °C with thermowell material stainless steel 316Ti

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

150 bar with thermowell material stainless steel 316Ti

## Optional extras

- Other dimensions and materials
- Coating of wetted parts
- Armour plating with STELLIT®
- Quality certificates
- Wake frequency calculations according to ASME / ANSI PTC 19.3 or 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

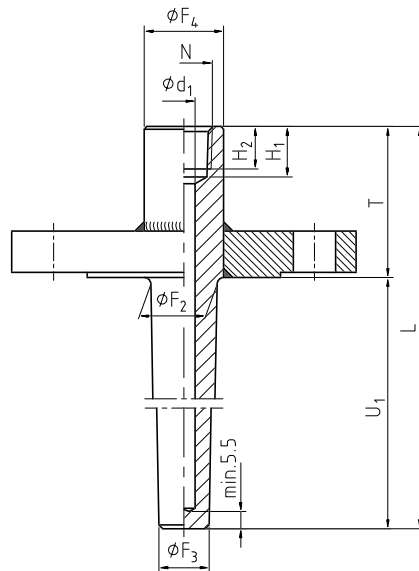
1) Ratings depends on below parameters:

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



## Dimensions

**OBSOLETE**



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### Legend:

- $H_1$  Bore depth for female thread
- $H_2$  Length of female thread
- L Total length
- N Instrument connection
- T Connection length
- $U_1$  Insertion length
- $\phi d_1$  Bore size
- $\phi F_2$  Root diameter of thermowell
- $\phi F_3$  Tip diameter of thermowell
- $\phi F_4$  Diameter at instrument connection

Nominal diameter	N	Dimensions in mm							Weight in kg (pressure rating 150 lbs)		additional weight with other flange in kg						
		$\phi d_1$	$\phi F_2$	$\phi F_3$	$\phi F_4$	$H_1$	$H_2$	T	$U_1 = 4''$	$U_1 = 22''$							
1"	G 1/2	6.6	22	16	30	19	15	2 1/4" (approx. 57 mm)	1.250	2.140	1"	300 lbs	0.510				
		8.5							1.220	2.040		600 lbs	0.690				
	1/2 NPT	6.6							1.250	2.140		900 - 1500 lbs	2.610				
		8.5							1.220	2.040							
1 1/2"	G 1/2	6.6	25	19					30	19	15	2 1/4" (approx. 57 mm)	1.990	3.230	1 1/2"	300 lbs	1.110
		8.5											1.960	3.130		600 lbs	1.660
	1/2 NPT	6.6											1.990	3.230		900 - 1500 lbs	4.100
		8.5											1.960	3.130			
2"	G 1/2	6.6	25	19	30	19	15	2 1/4" (approx. 57 mm)					2.860	4.100	2"	300 lbs	0.750
		8.5											2.830	4.000		600 lbs	1.700
	1/2 NPT	6.6											2.860	4.100		900 - 1500 lbs	7.500
		8.5											2.830	4.000			

## Suitable stem lengths of mechanical thermometers

### Dial thermometers

Design of connection	Stem length $l_1$
S/4/5	$l_1 = L - 10 \text{ mm}$ or $l_1 = U_1 + T - 10 \text{ mm}$
2	$l_1 = L - 30 \text{ mm}$ or $l_1 = U_1 + T - 30 \text{ mm}$

## Ordering information

State: Model / Material / Nominal diameter / Pressure rating / Sealing face / Instrument connection / Bore size / Insertion length  $U_1$  / Connection length / 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.

**WIKAI**

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