

# Thermowells

## Solid Machined, with Flange

### Thermometers

per WIKA Standard • Model SW400F

#### Application

The thermowells model SW400F 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 1.4571

##### Flange

per DIN 2527 with sealing face Form C per DIN 2526

##### Nominal diameter

DN 25, DN 40, DN 50

##### Pressure rating

PN 16-40, PN 64-100

##### Instrument connection

Female thread G ½, ½ NPT

##### Bore size

Ø 6.2 mm, Ø 8.2 mm, Ø 10.2 mm

##### Insertion length $U_1$

160, 250, 300, 400, 500 mm

##### Total length L

Insertion length + connection length

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

600 °C with thermowell material stainless steel 1.4571

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

150 bar with thermowell material stainless steel 1.4571

#### Optional extras

- Other dimensions and materials
- Coating of wetted parts
- Armour plating with STELLIT®
- Quality certificates
- Wake frequency calculations according to Dittrich / Klotter or to ASME / ANSI PTC 19.3 are recommended in critical applications. WIKA offer this as an engineering service.

Following process data are necessary for the calculation:

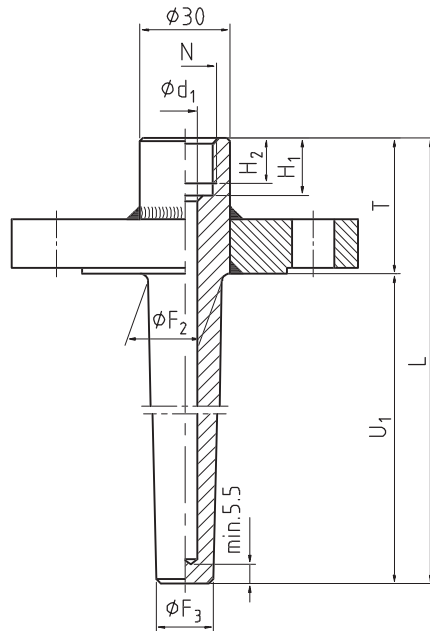
- Process pressure (in bar or psi)
- Process temperature (in °C or °F)
- Flow rate (in m/s)
- Density (in kg/m<sup>3</sup>)
- Dimensions and material of thermowell



1) Ratings depends on below parameters:

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

## Dimensions



3336 306.01

## Legend:

- H<sub>1</sub> Bore depth for female thread
- H<sub>2</sub> Length of female thread
- L Total length
- N Instrument connection
- T Connection length
- U<sub>1</sub> Insertion length
- Ø d<sub>1</sub> Bore size
- Ø F<sub>2</sub> Root diameter of thermowell
- Ø F<sub>3</sub> Tip diameter of thermowell

Dimensions in mm							Weight in kg (flange DN25 PN16-40)	
N	Ø d <sub>1</sub>	Ø F <sub>2</sub>	Ø F <sub>3</sub>	H <sub>1</sub>	H <sub>2</sub>	T	U <sub>1</sub> = 160 mm	U <sub>1</sub> = 500 mm
G ½	6.2	25	19	19	15	45	1.820	2.760
	8.2						1.790	2.670
	10.2						1.750	2.550
½ NPT	6.2	25	19	-	-	45	1.820	2.760
	8.2						1.790	2.670
	10.2						1.750	2.550

additional weight with other flange in kg		
DN25	PN64-100	1.230
DN40	PN16-40	0.820
	PN64-100	2.640
DN50	PN16-40	1.620
	PN64-100	4.300

## Suitable stem lengths of mechanical thermometers

### Dial thermometers

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

## Ordering information

State: Model / Material / Nominal diameter / Pressure rating / Sealing face / Instrument connection / Bore size / Insertion length U<sub>1</sub> / 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.



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