

Solid machined, with Flange Model SD400F

WIKA Data Sheet TW 90.51

Applications

- Chemical engineering, process engineering, apparatus engineering
- For high process loads

Special Features

- Design to DIN 43 772 Form 4F

Description

Thermowell material

Stainless steel 1.4571

Process connection

Flanges to valid national or international standards like EN 1092-1, DIN 2527, ASME B16.5

Instrument connection

Female thread M14x1.5 / M18x1.5 / G½ / G¾

Bore size ²⁾

Ø 3.5 mm, Ø 7 mm, Ø 9 mm, Ø 11 mm

Insertion length U_1 ²⁾

130, 190, 340 mm

Total length L ²⁾

200, 260, 410 mm

Maximum process temperature ¹⁾

600 °C for thermowell material 1.4571

Maximum process pressure (static) ¹⁾

depend on pressure rating of flange



Thermowell with flange Model SD400F

1) Ratings depends on below parameters:

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

2) Combinations of design see overleaf

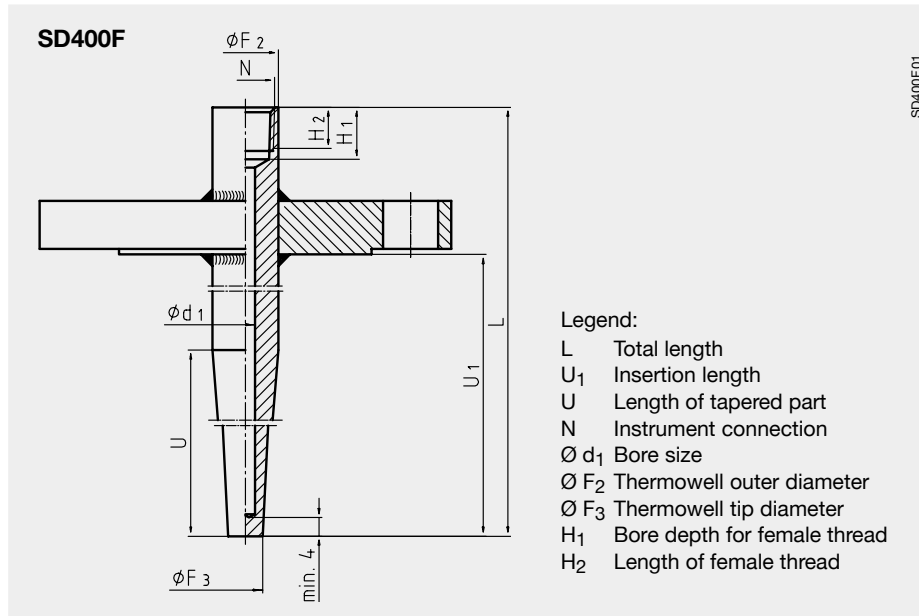
Optional extras

- 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/m³)
- Dimensions and material of thermowell

Dimensions in mm



Legend:

- L Total length
- U₁ Insertion length
- U Length of tapered part
- N Instrument connection
- Ø d₁ Bore size
- Ø F₂ Thermowell outer diameter
- Ø F₃ Thermowell tip diameter
- H₁ Bore depth for female thread
- H₂ Length of female thread

Standard instrument connections

| Dimensions in mm | | | | | |
|------------------|-----------------|------------------|------------------|----------------|----------------|
| N | Ød ₁ | Ø F ₂ | Ø F ₃ | H ₁ | H ₂ |
| M14 x 1.5 | 3.5 | 18 | 9 | 16 | 13 |
| M18 x 1.5 | 7 | 24 | 12.5 | 16 | 13 |
| G ½ | 7 | 26 | 12.5 | 19 | 15 |
| G ½ | 9 | 26 | 15 | 19 | 15 |
| G ¾ | 11 | 32 | 17 | 22 | 17 |

Standard length

| Dimensions in mm | | | Weight in kg ³⁾ | |
|--------------------------|-----|----------------|----------------------------|--------------|
| L | U | U ₁ | DN 25, PN 40 | DN 50, PN 40 |
| 200 | 65 | 130 | 1.9 | 3.8 |
| 260 | 125 | 190 | 2.1 | 4.0 |
| 410 ⁴⁾ | 275 | 340 | 2.3 | 4.2 |

³⁾ For version with N = M18 x 1.5 / Ø d₁ = 7mm / Ø F₂ = 24mm

⁴⁾ Not with bore size Ø d₁ = 3.5 mm

⁵⁾ Standard neck length M = 165 mm

Suitable stem lengths of mechanical thermometers

| Dial thermometers Design of connection | Stem length l ₁ | |
|---|----------------------------|---|
| | without neck | with neck |
| S / 4 / 5 | l ₁ = L - 10 mm | - |
| 2 | l ₁ = L - 30 mm | - |
| 3 | - | l ₁ = U ₁ + M - 10 mm ⁵⁾ |

Ordering information

Model / Material / Flange / Instrument connection / Bore size / Total length L / Insertion length U₁ / Optional extras required

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

