

Solid Machined, with Flange in Full Penetration Welded Construction Model SI410F

WIKA Data Sheet TW 90.70

Applications

- Petrochemical, On/Offshore, plant engineering
- For high process loads

Special Features

- Extra heavy construction
- Connection flange - well in full penetration welded construction
- Certificated to ASME Sec. IX

Description

Thermowell material

Stainless steel 316 L (1.4404) , 316 Ti (1.4571)

Nominal diameter

to ASME: 1", 1½", 2"

Pressure rating

to ASME: 150 lbs, 300 lbs, 600 lbs, 900/1500 lbs

Instrument connection

½" NPT female

Bore size

Ø 6.6 mm / Ø 8.5 mm

Insertion length U₁

Inch	4,	7,	10,	13,	16,	22
Approx. mm	100,	180,	255,	330,	450,	560

Total length L

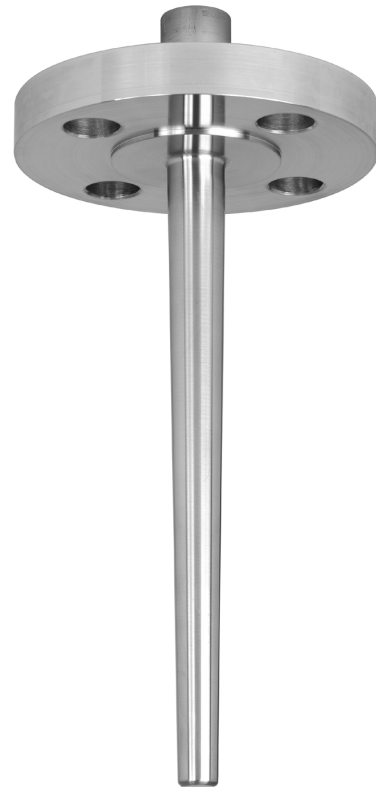
Insertion length U₁ + connection length T

Maximum process temperature 1)

600 °C for thermowell material 316 Ti (1.4571)

Maximum process pressure (static) 1)

Depend on pressure rating of flange



Thermowell with flange Model SI410F

Optional extras

- Other dimensions and materials
- Quality certificates
- Wake frequency calculations according to ASME PTC 19.3 are recommended in critical applications. WIKA offer this as an engineering service.

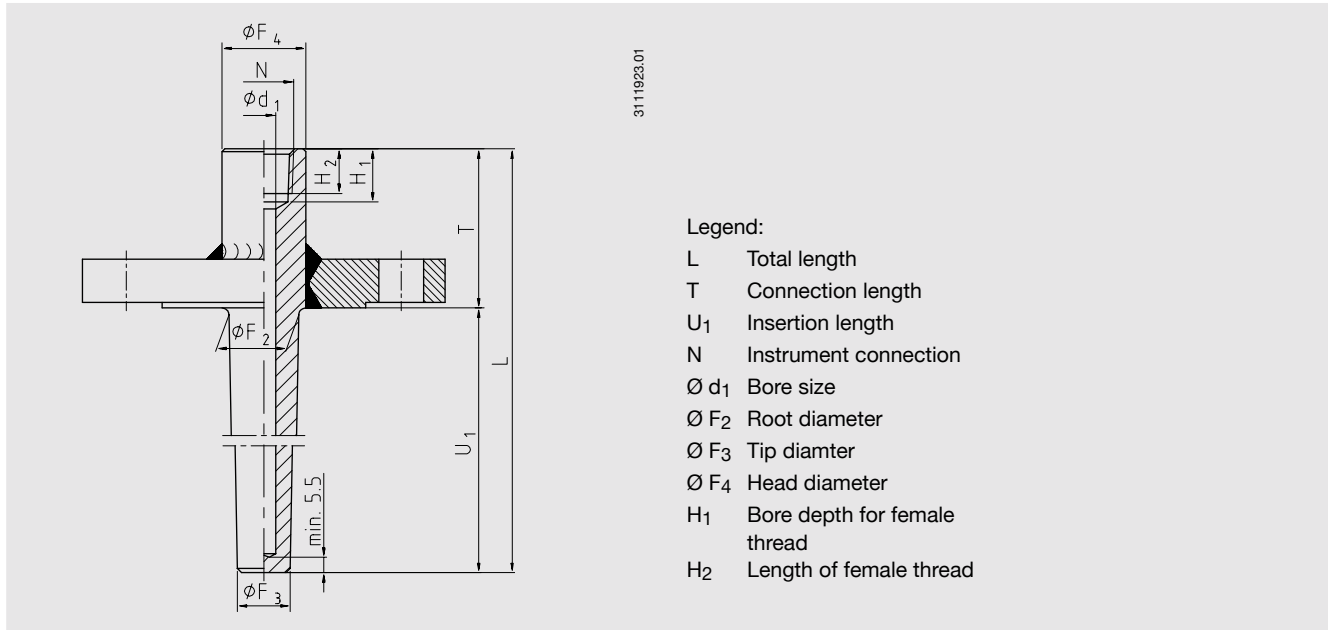
Following process data are necessary for the calculation:

- Process pressure (in bar or psi)
- Process temperature (in °C or °F)
- Flow rate (in m/s)
- Density (in kg/m³)
- 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 in mm



- Legend:
- L Total length
 - T Connection length
 - U₁ Insertion length
 - N Instrument connection
 - Ø d₁ Bore size
 - Ø F₂ Root diameter
 - Ø F₃ Tip diameter
 - Ø F₄ Head diameter
 - H₁ Bore depth for female thread
 - H₂ Length of female thread

DN	PN in lbs	Dimensions in mm							Weight in kg		
		T	Ø F ₂	Ø F ₃	Ø d ₁	Ø F ₄	H ₁	H ₂	U ₁ =4"	U ₁ =13"	U ₁ =22"
1"	150	2 1/4" (ca. 57 mm)	22	16					1.4	1.9	2.3
	300								2.1	2.6	3
	600								2.3	2.8	3.2
	1500								4.3	4.8	5.2
1 1/2"	150	2 1/4" (ca. 57 mm)	25	19	6.6 or 8.5	30	19	15	1.8	2.4	3
	300								3.3	3.9	4.5
	600								4	4.7	5.3
	1500								6.4	7.1	7.7
2"	150	2 1/4" (ca. 57 mm)	25	19	6.6 or 8.5	30	19	15	2.5	3.1	3.7
	300								3.7	4.3	4.9
	600								4.2	4.9	5.5
	1500								11	11.6	12.3

Suitable stem lengths of mechanical thermometers

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

Ordering information

Model / Material / Flange / Instrument connection / Bore size / 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.



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