

Solid Machined, with Threaded Flange in Screwed and Welded Construction Model TW10-S, TW10-B

WIKA Data Sheet TW 95.11

Applications

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

Special Features

- Flanged connection thermowell with screwed and welded construction
- Model TW10-S: Non-wetted weld connection (standard)
- Model TW10-B: Additional, process-side weld (seal weld)
- Available thermowell style: tapered, straight and stepped

Description

Thermowell material

Stainless steel 304/304L, 316/316L, A105, 1.4571, special materials

Flange

Threaded flange acc. to ASME B16.5

Instrument connection

½ NPT, G ½ female

Bore size

Ø 6.6 mm, Ø 8.5 mm

Insertion length U

To customer specification

Connection length H

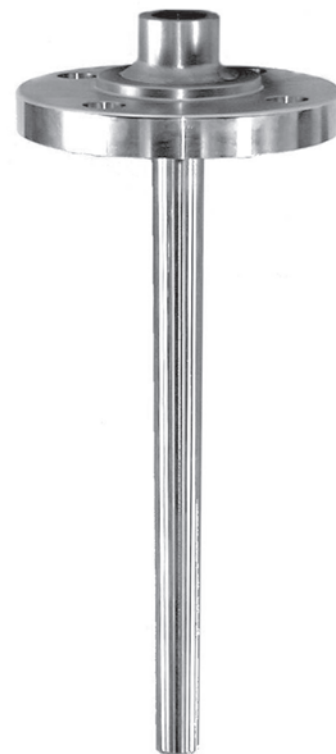
To customer specification (standard 57, 83, 102 mm)

Maximum process temperature 1)

Dependent upon thermowell material

Maximum process pressure

Dependent upon pressure rating of flange



Flanged Thermowell Model TW10-S

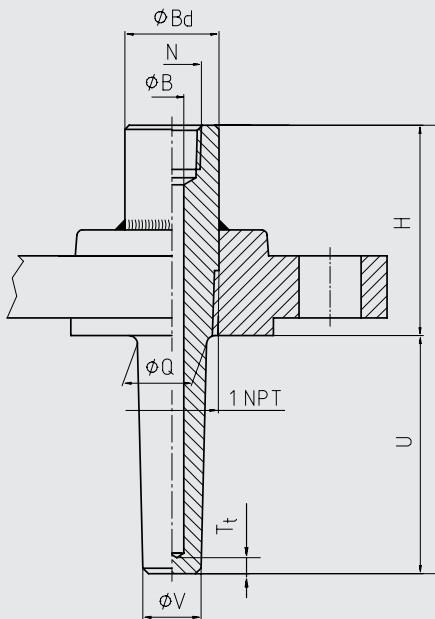
Optional extras

- Other flanges, dimensions and materials
- Quality certificates
- Wake frequency calculations in accordance with ASME PTC 19.3 are recommended in critical applications. WIKA offer this as an engineering service. Please find further information in our separate technical information sheet, IN 00.15 "Strength calculation for thermowells"

1) Rating depends on the parameters below:

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

Dimensions in mm



35104/28.02

Legend :

- H Connection length ¹⁾
- U Insertion length ¹⁾
- N Instrument connection
- Ø B Bore size
- Ø Q Root diameter
- Ø V Tip diameter
- Ø Bd Bar diameter
- T_t Tip thickness (6.5 mm)

1) Due to the design of 1" NPT thread, the insertion length U and connection length H may vary, within a tolerance of ± 5 mm, from the nominal size given. A flush/tight fit with the flange sealing face cannot be guaranteed.

Model TW10-S-A

DN	PN in lbs	Dimensions in mm				Weight in kg			
		H	Ø Q	Ø V	Ø B	Ø Bd	U = 4"	U = 13"	U = 22"
1"	150						1.4	1.9	2.3
	300	2¼" (ca. 57 mm)					2.1	2.6	3
	600		22	16			2.3	2.8	3.2
	1500	3¼" (ca. 83 mm)					4.3	4.8	5.2
	2500						5.6	6.1	6.5
1½"	150	2¼" (ca. 57 mm)					2	2.6	3.2
	300						3.3	3.9	4.5
	600	3¼" (ca. 83 mm)					4	4.7	5.3
	1500						6.4	7.1	7.7
	2500	4" (ca. 102 mm)			6,6 or 8,5	34	12	12.6	13.3
2"	150	2¼" (ca. 57 mm)					2.8	3.4	4
	300						3.7	4.3	4.9
	600	3¼" (ca. 83 mm)	25	19			4.6	5.3	5.9
	1500	4" (ca. 102 mm)					11	11.6	12.3
	2500	4¼" (ca. 108 mm)					17	17.6	18.3
2½"	150	2¼" (ca. 57 mm)					4	4.6	5.2
	300						5.2	5.9	6.5
	600	3¼" (ca. 83 mm)					6.3	7	7.6
	1500	4" (ca. 102 mm)					15	15.6	16.3
	2500	4¼" (ca. 108 mm)					23.1	23.7	24.4

Suitable stem lengths for mechanical thermometers

Connection design	Stem length I ₁
S / 4 / 5	I ₁ = U + H - 10 mm
2	I ₁ = U + H - 30 mm

Sealing surface roughness

Flange standard	AARH in μinch	Ra in μm	Rz in μm
ASME Stock finish	125-250	3.2 - 6.3	-
B 16.5 Smooth finish	< 125	< 3.2	-
RTJ	< 63	< 1.6	-
Tongue/Groove	< 125	< 3.2	-
EN 1092 Form B1	-	3.2 - 12.5	12.5 - 50
Form B2	-	0.8 - 3.2	3.2 - 12.5
DIN 2527 Form C	-	-	40 - 160
Form E	-	-	< 16

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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