

Weld-in thermowell (solid-machined) Model TW25

WIKA data sheet TW 95.25

Applications

- Petrochemical industry, on-/offshore, plant construction
- For high process loads

Special features

- Variable welding diameters
- International standard
- Possible thermowell forms:
 - Model TW25-A: tapered
 - Model TW25-B: straight
 - Model TW25-C: stepped
 - "Quill Tip" version (with open tip)



Weld-in thermowell, model TW25

Description

Each thermowell is an important component of any temperature measurement point. It is used to separate the process from the surrounding area, thus protecting the environment and operating personnel and keeps aggressive media, high pressures and flow rates from the temperature sensor itself and thereby enables the thermometer to be exchanged during operation.

Based on the almost limitless application possibilities, there are a large number of variants, such as thermowell designs or materials. The type of process connection and the basic method of manufacture are important design differentiation criteria. A basic differentiation can be made between threaded and weld-in thermowells, and those with flange connections.

Furthermore, one can differentiate between fabricated and solid-machined thermowells. Fabricated thermowells are constructed from a tube, that is closed at the tip by a welded solid tip. Solid-machined thermowells are manufactured from barstock.

The TW25 series of solid-machined weld-in thermowells are suitable for use with numerous electrical and mechanical thermometers from WIKA.

Due to the heavy-duty design, these international design thermowells are the first choice for use the chemical and petrochemical industries and in plant construction.

Standard version

Thermowell materials

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

Process connection

Welding diameter to customer specification
from 25.4 ... 49.5 mm

Connection to thermometer

½ NPT, G ½ (female)

“Quill Tip” version with weld-in connection ½" and ¾"

Bore size

Ø 6.6 mm, Ø 8.5 mm

Insertion length U

To customer specification

Connection length H

To customer specification (standard 45 mm)

Max. process temperature, process pressure

Depending on

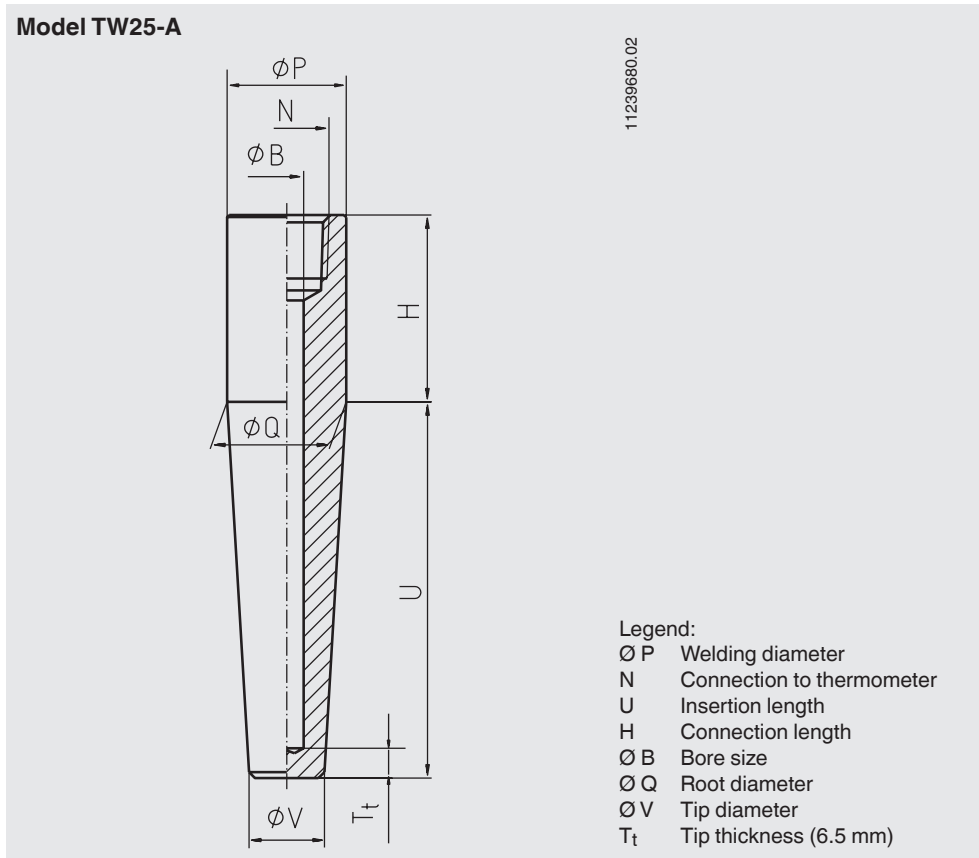
- Thermowell design
 - Dimensions
 - Material
- Process conditions
 - Flow rate
 - Density of medium

Options

- Other dimensions and materials
- “Quill Tip” version
- Quality certificates
- Wake frequency calculation to ASME PTC 19.3 TW-2016 is recommended in critical applications as a WIKA engineering service

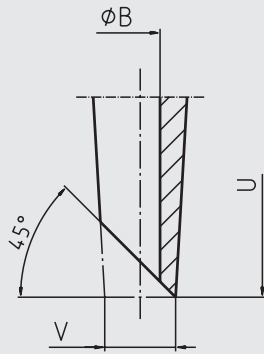
For further information see Technical information IN 00.15
“Wake frequency calculation”.

Dimensions in mm

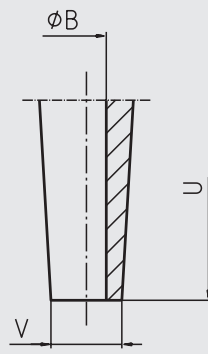


“Quill Tip” version

Standard



Option: straight



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Tapered thermowell form

Dimensions in mm					Weight in kg (for H = 45 mm)	
ϕP	N	ϕQ	ϕV	ϕB	U = 100 mm	U = 560 mm
25.4	½ NPT, G ½	25.4	19	6.6 or 8.5	0.4	1.5
35.0	½ NPT, G ½	35.0	19	6.6 or 8.5	0.7	2.8
49.5	½ NPT, G ½	49.5	19	6.6 or 8.5	1.4	4.9

Suitable stem lengths (dial thermometers)

Connection type	Stem length l_1
S, 4, 5	$l_1 = U + H - 10 \text{ mm}$
2	$l_1 = U + H - 30 \text{ mm}$

Ordering information

Model / Thermowell form / Head diameter / Connection to thermometer / Insertion length U / Connection length H / Thermowell material / Bore diameter ϕB / Root diameter ϕQ / Tip diameter ϕV / Assembly with thermometer / Certificates / Options

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