

## Threaded thermowell or for push-in/weld-in (fabricated)

### Version per DIN 43772 form 2, 3, 2G, 3G

### Models TW35-2, TW35-3, TW35-4, TW35-5

WIKA data sheet TW 95.35

#### Applications

- Chemical industry, process technology, apparatus construction
- For low and medium process loads

#### Special features

- Version per DIN 43772
- Model TW35-2: Form 2 (straight)
- Model TW35-3: Form 3 (tapered)
- Model TW35-4: Form 2G (straight)
- Model TW35-5: Form 3G (tapered)
- With integrated neck tube
- Model TW35-3, TW35-5: fast-response design

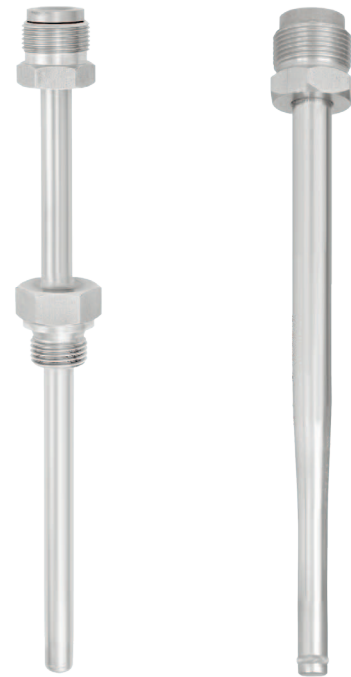


Fig. left: Threaded thermowell, model TW35-4 (Form 2G)  
 Fig. right: Push-in/weld-in thermowell, model TW35-3 (Form 3)

#### 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 TW35 series of fabricated threaded or weld-in thermowells are suitable for use with numerous electrical and mechanical thermometers from WIKA.

Due to their design to DIN 43772, these thermowells for low and medium process loads are suitable for use in the chemical industry, process technology and equipment manufacture.

## Standard version

### Thermowell materials

Stainless steel 1.4571

### Process connection

Male thread G ½ B, G 1 B, M20 x 1.5, ½ NPT or without thread for push-in/weld-in

### Connection to thermometer

M24 x 1.5 union nut

### Bore size

Ø 6.1 mm, Ø 7 mm, Ø 9 mm

### Insertion length $U_1$

To DIN 43772 or customer specification

### Overall length $L$

Model TW35-4: Insertion length  $U_1$  + 145 mm

Model TW35-5: Insertion length  $U_1$  + 147 mm

### Max. process temperature, process pressure

Depending on

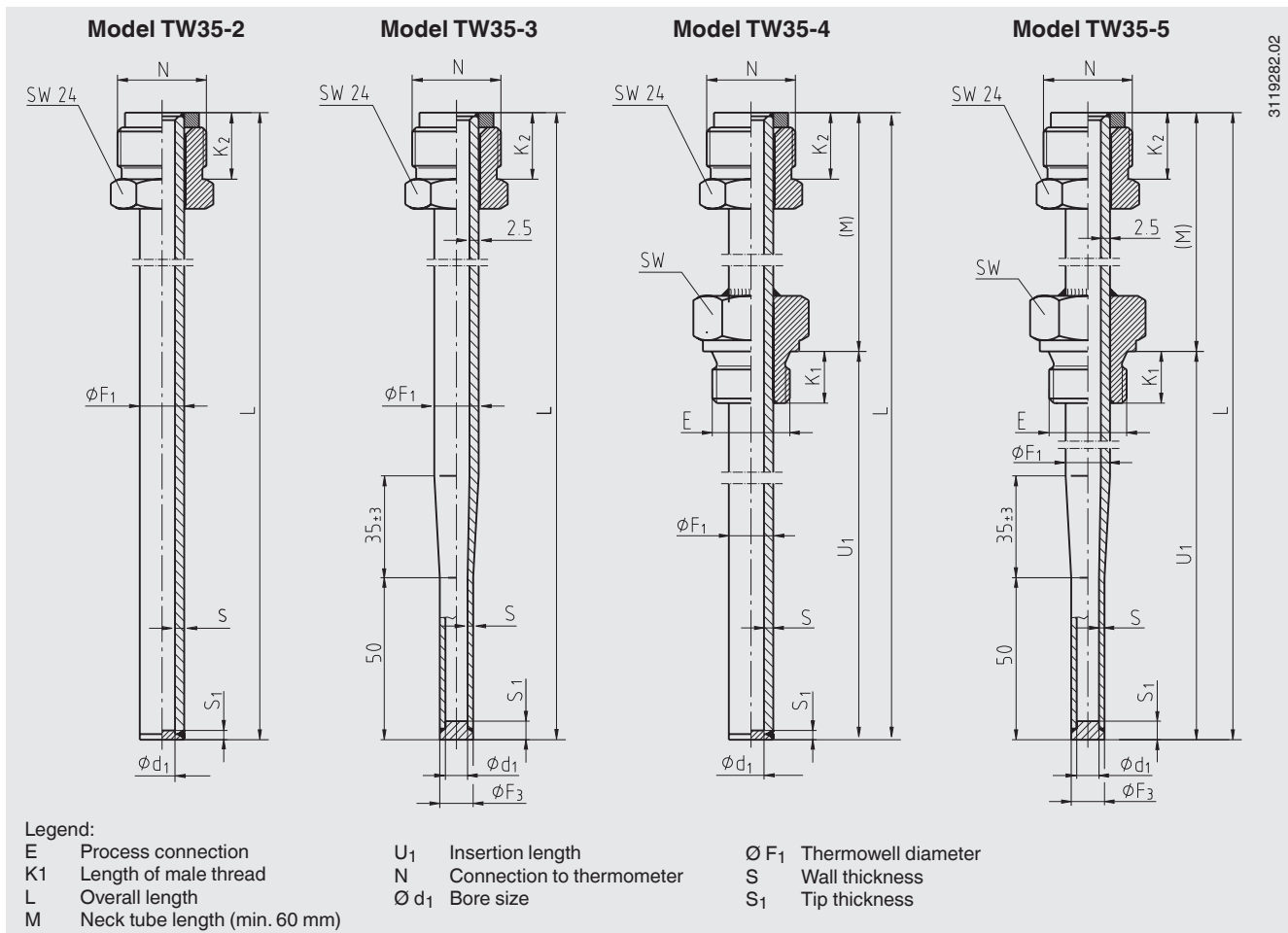
- Load diagram DIN 43772
- Thermowell design
  - Dimensions
  - Material
- Process conditions
  - Flow rate
  - Density of medium

## Options

- Other dimensions and materials
- Quality certificates
- Thermowell calculation to Dittrich/Klotter is recommended in critical applications as a WIKA engineering service.

For further information, see Technical Information IN 00.15 "Strength calculation for thermowells".

## Dimensions in mm



Dimensions in mm					Weight in kg
$\varnothing d_1$	$\varnothing F_1$	S	S <sub>1</sub>	E	L = 305 mm
7	11	2	3	G ½ B, G 1 B, M20 x 1.5, ½ NPT	0.23
7	12	2.5	3.5	G ½ B, G 1 B, M20 x 1.5, ½ NPT	0.35
9	14	2.5	3.5	G ½ B, G 1 B, M20 x 1.5, ½ NPT	0.23
6.1	12	2.5	5	G ½ B, G 1 B, M20 x 1.5, ½ NPT	0.23

### Suitable stem lengths of mechanical dial thermometers

Connection type	Stem length I <sub>1</sub>
S, 3, 4, 5	I <sub>1</sub> = L - 10 mm or I <sub>1</sub> = U <sub>1</sub> + M - 10 mm
2	I <sub>1</sub> = L - 30 mm or I <sub>1</sub> = U <sub>1</sub> + M - 30 mm

### Ordering information

Model / Thermowell form / Thermowell material / Process connection / Connection to thermometer / Insertion length U<sub>1</sub> / Total length L / Dimension of pipe / Assembly with thermometer / Certificates / Options

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