

Thermowell, solid machined to weld-in or with flange

Version per DIN 43772 form 4, 4F

Models TW55-6, TW55-7

WIKA data sheet TW 95.55

Applications

- Chemical industry, process technology, apparatus construction
- For high process loads

Special features

- Version per DIN 43772
- Thermowell form Model TW55-6: form 4 to weld-in
Model TW55-7: form 4F with flange
- For highly corrosion-resistant coating (model TW55-7)

Description

Thermowell material

Stainless steel 1.4571, 316/316L
Steel 1.0460, 1.5415, 1.7335, 1.7380

Process connection

- Thermowell outer diameter (head diameter)
Ø 18 mm, 24 mm, 26 mm, 32 mm ...
- Flanges to valid national or international standards like
e.g. EN 1092-1, DIN 2527, ASME

Connection to the thermometer

M14 x 1.5, M18 x 1.5, G ½, G ¾ female

Bore size

Ø 3.5 mm, Ø 7 mm, Ø 9 mm, Ø 11 mm

Insertion length U_1 , cone length U and overall length L

Version combinations see table on page 3

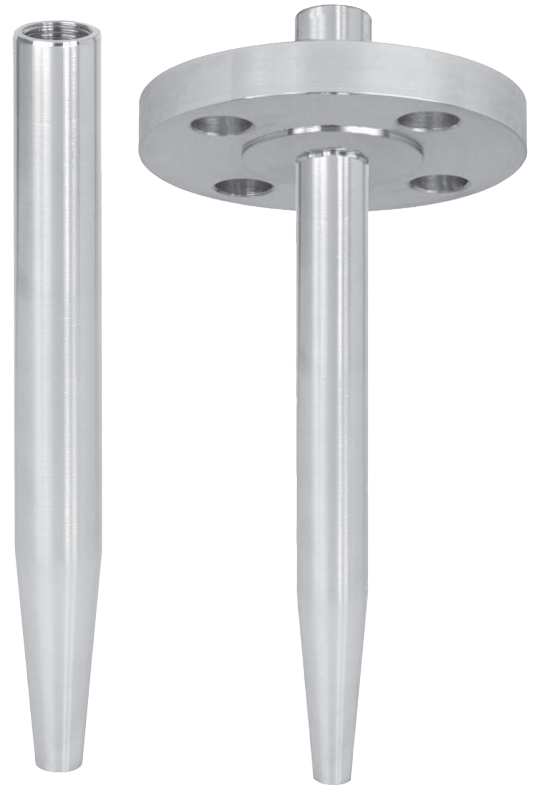


Fig. left: weld-in thermowell, model TW55-6

Fig. right: thermowell with flange, model TW55-7

Coating

- PFA
Coat thickness min. 0.4 mm (standard) or
min. 0.6 mm (option)
- E-CTFE (Halar®)
Coat thickness min. 0.6 mm

Maximum process pressure

dependent on the flange pressure rating
Weld-in thermowells see DIN 43772

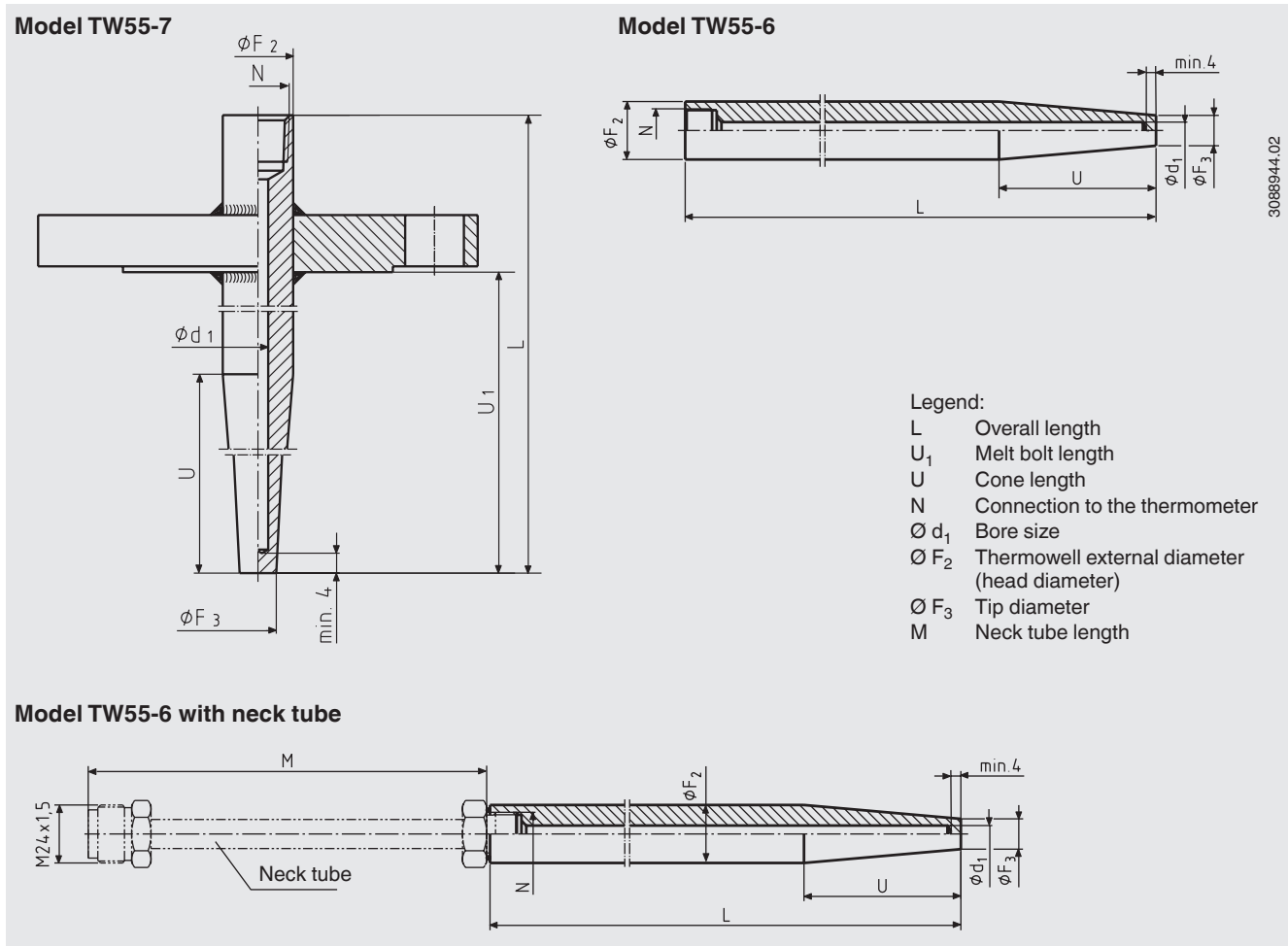
- 1) Rating depends on the parameters below:
- Process medium
 - Process pressure
 - Process temperature (dependent on the selected coating)
 - Flow rate
 - Design of thermowell (dimensions, material)

Options

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

Please find further information in our separate Technical Information IN 00.15 "Strength calculation for thermowells"

Dimensions in mm



Standard lengths model TW55-7

Dimensions in mm			Weight in kg	
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 ¹⁾	275	340	2.3	4.2

Standard lengths model TW55-6

Dimensions in mm		Weight in kg
L	U	
110	65	0.24
110	73	0.23
140	65	0.34
170	133	0.34
200	65	0.54
200	125	0.45
260	125	0.65
410 ²⁾	275	0.92

Standard connection thread

Dimensions in mm					
N	Ø d 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

1) Not with bore size Ø d₁ = 3.5 mm

2) Standard of the neck tube length M = 165 mm

Suitable stem lengths

■ Dial indicating thermometers

Connection type	Stem length l ₁	
	without neck tube	with neck tube
S / 4 / 5	l ₁ = L - 10 mm	-
2	l ₁ = L - 30 mm	-
3	-	l ₁ = L + M - 10 mm ²⁾

2) Standard of the neck tube length M = 165 mm

■ Machine glass thermometer

Connection type	Stem length l ₁	
	without neck tube	with neck tube
E	l ₁ = L - 10 mm	-
3	-	l ₁ = L + M - 10 mm ²⁾

Version combinations insertion length U₁, cone length U and overall length L in mm

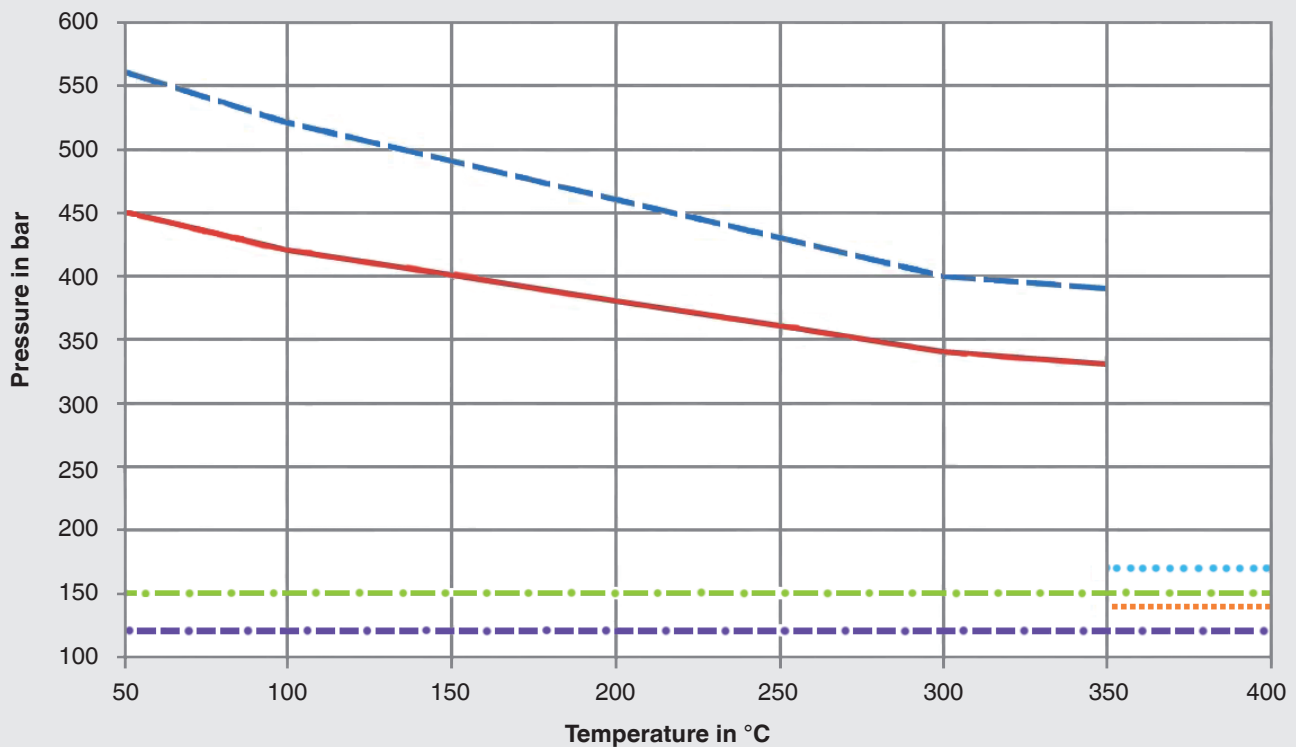
Thermowell Model	Melt bolt length U ₁	Cone length U	Overall length L
TW55-6 (form 4 to weld-in)	-	65, 73, 125, 133, 275	110, 140, 170, 200, 260, 410
TW55-7 (form 4F with flange)	130, 190, 340	65, 125, 275	200, 260, 410

Sealing face 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

Pressure-temperature-diagram 1)

Thermowell model TW55 made of stainless steel 1.4571



Legend:

	water 3 m/s	U = 65 mm	with ID Ø 3.5 mm
	water 3 m/s	U = 125 mm	with ID Ø 7 mm
	air 60 m/s	U = 65 mm	with ID Ø 3.5 mm
	air 60 m/s	U = 125 mm	with ID Ø 7 mm
	vapour 60 m/s	U = 65 mm	with ID Ø 3.5 mm
	vapour 60 m/s	U = 125 mm	with ID Ø 7 mm

1) Rating depends on the parameters below:

- Process medium
- Process pressure
- Process temperature (dependent on the selected coating)
- Flow rate
- Design of thermowell (dimensions, material)

Ordering information

Model / Thermowell form / Thermowell material / Head diameter / Connection to the thermometer / Bore / Nominal width / Pressure rating / Sealing face / Insertion length U_1 / Cone length U / Overall length L / Coating / Assembly with resistance thermometer or thermocouple / Certificates / Options

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We reserve the right to make modifications to the specifications and materials.



WIKAL Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. (+49) 9372/132-0
Fax (+49) 9372/132-406
E-mail info@wika.de
www.wika.de