

Fabricated, to Screw in Design to DIN 43 772 Form 5, 8 Model TW45-F, TW45-G

WIKA Data Sheet TW 95.45

Applications

- Petrochemical, On/Offshore, plant engineering
- For low and medium process loads

Special Features

- Design according to DIN 43 772
- Thermowell Model TW45-F: Form 5
Model TW45-G: Form 8

Description

Thermowell material

Stainless steel 1.4571 or Cu-alloy

Instrument connection

G ½ B, G ¾ B male

Instrument connection

Model TW45-F: G ½, G ¾ female
Model TW45-G: G ½ B, G ¾ B male

Bore size

Design according to DIN 43 772:
Ø 7 mm, Ø 9 mm, Ø 11 mm

Design similar to DIN 43 772, but with quick response time:
Ø 6.2 mm, Ø 8.2 mm, Ø 8.5 mm, Ø 10.2 mm

Insertion length U₁

Model TW45-F: 82, 142, 182, 232, 382 mm
Model TW45-G: 73, 110, 170, 260, 410 mm

Total length L

Insertion length U₁ + 28 mm

Maximum process temperature 1)

See load diagrams DIN 43 772
160 °C with thermowell material Cu-alloy



Fig. left: Thermowell to screw in Model TW45-F
Fig. right: Thermowell to screw in Model TW45-G

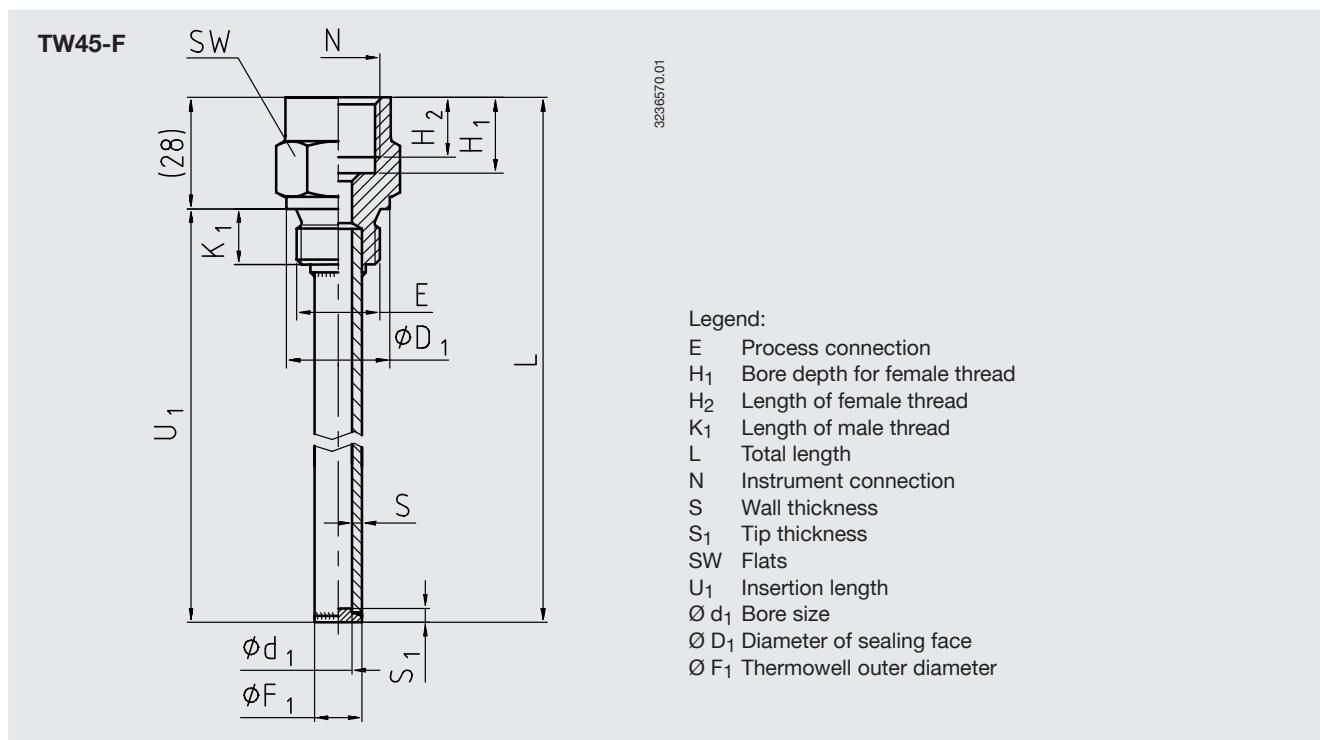
Optional extras

- Other 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



Legend:

- E Process connection
- H₁ Bore depth for female thread
- H₂ Length of female thread
- K₁ Length of male thread
- L Total length
- N Instrument connection
- S Wall thickness
- S₁ Tip thickness
- SW Flats
- U₁ Insertion length
- Ø d₁ Bore size
- Ø D₁ Diameter of sealing face
- Ø F₁ Thermowell outer diameter

Material	Dimensions in mm										Weight in kg			
	E	N	Ø d ₁	Ø D ₁	Ø F ₁	H ₁	H ₂	K ₁	S	S ₁	SW	U ₁ = 82 mm	U ₁ = 382 mm	
Stainless steel 1.4571	G ½ B		7	26	12	19	15	14	2.5	3.5	27	0.15	0.33	
			9		14				2.5	3.5		0.15	0.36	
			11		14				1.5	2.5		0.12	0.28	
			6.2		8				0.9	1		0.12	0.18	
			8.2		10				0.9	1		0.12	0.18	
			10.2		12				0.9	1		0.12	0.19	
	G ¾ B	G ¾	32	7	22	17	16	32	2.5	3.5	32	0.24	0.42	
				9					14	2.5		3.5	0.24	0.45
				11					14	1.5		2.5	0.22	0.37
				6.2					8	0.9		1	0.21	0.27
				8.2					10	0.9		1	0.21	0.27
				10.2					12	0.9		1	0.21	0.28
				7					12	2.5		3.5	0.20	0.38
				9					14	2.5		3.5	0.20	0.41
				11					14	1.5		2.5	0.18	0.33
				6.2					8	0.9		1	0.17	0.23
Cu-alloy	G ½ B	G ½	8.5	26	10	19	15	14	0.75	0.75	27	0.11	0.18	
			8.5	32	10	19	15	16	0.75	0.75	32	0.23	0.29	
	G ¾ B	G ½	8.5	26	10	19	15	14	0.75	0.75	27	0.11	0.18	
			8.5	32	10	19	15	16	0.75	0.75	32	0.23	0.29	

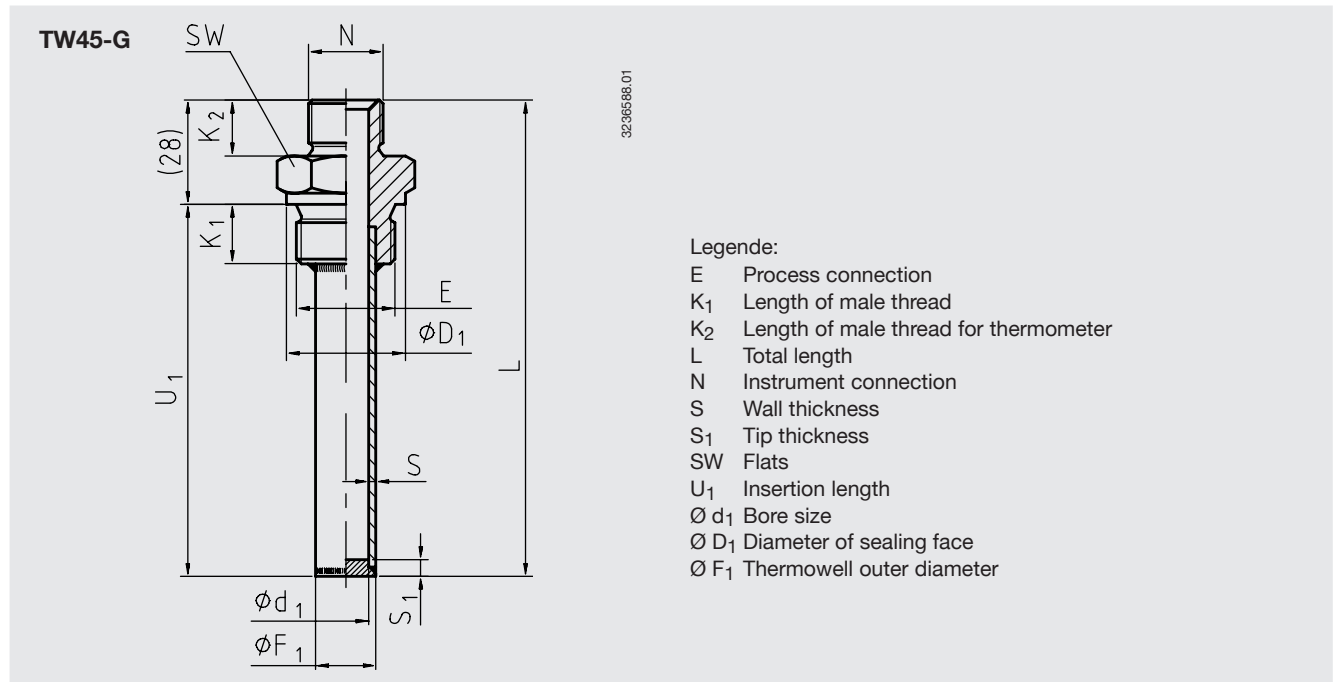
Suitable stem lengths for mechanical thermometers

Connection design	Stem length I ₁
S / 4 / 5	I ₁ = L - 10 mm or I ₁ = U ₁ + 18 mm
2	I ₁ = L - 30 mm or I ₁ = U ₁ - 2 mm

Suitable stem lengths for machine glass thermometers

Connection design	Stem length I ₁
E	I ₁ = L - 10 mm or I ₁ = U ₁ + 18 mm

Dimensions in mm



Material	Dimensions in mm										Weight in kg	
	E	N	Ø d ₁	Ø D ₁	Ø F ₁	K ₁	K ₂	S	S ₁	SW	U ₁ = 73 mm	U ₁ = 410 mm
Stainless steel 1.4571	G ½ B	G ½ B	7	26	12	14	12	2.5	3.5	27	0.14	0.34
			9		14			2.5	3.5		0.14	0.37
			11		14			1.5	2.5		0.12	0.30
			6.2		8			0.9	1		0.13	0.20
			8.2		10			0.9	1		0.13	0.20
			10.2		12			0.9	1		0.11	0.18
	G ¾ B	G ¾ B	7	32	12	16	14	2.5	3.5	32	0.22	0.43
			9		14			2.5	3.5		0.22	0.46
			11		14			1.5	2.5		0.20	0.39
			6.2		8			0.9	1		0.21	0.28
			8.2		10			0.9	1		0.21	0.28
			10.2		12			0.9	1		0.20	0.27

Suitable stem lengths for mechanical thermometers

Connection design	Stem length l ₁
3	l ₁ = L - 12 mm or l ₁ = U ₁ + 16 mm

Suitable stem lengths for machine glass thermometers

Connection design	Instrument connection	Stem length l ₁
3	G ½	l ₁ = L - 12 mm or l ₁ = U ₁ + 16 mm
	G ¾	l ₁ = L - 8 mm or l ₁ = U ₁ + 20 mm

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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