Thermowells

for food-, biotechnics-, and pharmaceutical industry
for stems with union nut

SL1/SL11/SL12
SL3/SL6

Application

Thermowells are amongst others applied to protect thermometer stems against process-related chemical and / or mechanical loads.
Furthermore a thermowell, which remains at the measuring point, enables the unproblematic dismounting of the thermometer for maintenance or repair.

SL3

SL6

SL1/ SL11/ SL12

Standard Versions

For thermometer stems with union nut, our models A3 and B3

Construction Type
Fabricated, that means process connection welded to thermowell, for low to medium loads by the process (flows, pressures, temperatures and vibrations).

Process Connection

SL1	Clamp-connection	ISO 2852, for tubes according to ISO 2037 and BS 4825
SL11	Clamp-connection	DIN 32 676, Series A, for tubes according to DIN 11 850
SL12	Tri-Clamp-connection	Tri-Clamp, for tubes according to BS 4825 and O.D.-Tube, ASME BPE and ISO 1127
SL3	Conical coupling / groove nut	DIN 11 851
SL6	Varivent® for	Varinline®-case

Details see reverse side

Connection to Thermometer Stem N
Male thread G ½ B (½" BSP)

Internal Diameter d1
Ø 11 mm suitable for stem-Ø dF 10 mm
Ø 13 mm suitable for stem-Ø dF 12 mm (only for gas thermometers)

Installation Length U1
60 mm to 200 mm

Total Length L (Standard)
Calculation see reverse side

Material
1.4435[1)] (316 stainless steel)
wetted surface electropolished
Ra< 0.8 µm
thermowell end and shapes polished

Process Temperature / Process Pressure
Maximum allowed process temperature: 400 °C
Maximum allowed process pressure: see reverse side

Concrete process conditions (medium, flow rate, pressure, temperature) and the thermowell version (dimension, material) could cause a reduction of the above mentioned maximum allowed values, see **load diagrams DIN 43 772**.
We can make a **thermowell calculation** for your concrete field of application (see special version and options) upon request.

[1)] remainders of 1.4571

Special Versions and Options among others

- Other installation lengths up to 400 mm
- Thermowells for stem diameter 6 and 8 mm upon request
- Other nominal sizes upon request
- Other process connections upon request
- EHEDG-Hygiene Certificate for SL6, 3A-Certificates for SL1/SL11/ SL12 and SL3

Ordering Information

Model	**SL1, SL11, SL12, SL3** or **SL6**
Process connection nominal diameter	**DN**
Connection to thermometer stem N	**G ½ B**
Internal-Ø d1	**11** or **13 mm**
Installation length	**U1**
Material	**1.4435**

Example: SL6, DN 50, G ½ B, d1=13, U1=100, 1.4435

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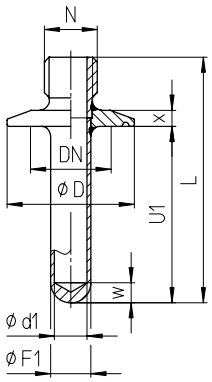
Dimensions, Lengths, corresponding Thermometer Stems

Dimensional Data (mm)

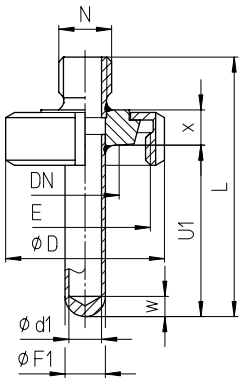
SL1 / SL11 / SL12

Prozcess Connection: Clamp / Tri-Clamp					
DN		NPS	PN[1]	D	x
SL1 Clamp ISO 2852	SL11 DIN 32 676 DIN 32676 Series A for tubes acc. to DIN 11850	SL12 Tri-Clamp for tubes acc. to BS 4825-3	bar	mm	mm
17.2 21.3	20		25	34	6.4
25 33.7 38	25 32 40	1" 1½"	25	50.5	6.4
40 51	50	2"	25	64	6.4



SL3

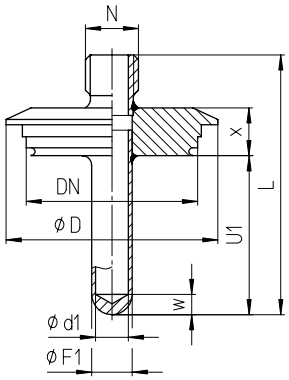
Process Connection: DN 11 851 Conical Coupling / Groove Nut				
DN	PN[1]	E	D	x
20	25	Rd 44 x 1/6	54	12
25	25	Rd 52 x 1/6	63	14
32	25	Rd 58 x 1/6	70	14
40	25	Rd 65 x 1/6	78	14
50	25	Rd 78 x 1/6	92	15



SL6

Process Connection: Varivent® for Varinline®-case			
DN	PN	D	x
50	25[1]	66	17
68	16[2]	84	17

[1] PN is being determined by the thermowell
[2] PN is being determined by the process connection



SL1 / SL11 / SL12 / SL3 / SL6

Tube Dimensions		
F1	d1	w
13	11	6.5
16	13	8

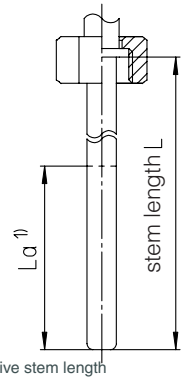
Thermowell total length, thermometer stem length, installation length

Calculation

- Thermowell total length:
  Thermowell length L = U1 + 21 + x
- Thermometer stem length:
  Stem length L = L (thermowell) - w
- Thermowell total length when stem is existent:
  Thermowell length L = L (stem) + w
- Installation length when stem is existent:
  Installation U1 = L (stem) -21 mm - x + w

Corresponding thermometer stem

Models A3 / B3
union nut
Form 5 DIN EN 13 190



1) La= active stem length
The active stem length La can be seen on the thermometer data sheets.

Technical changes, replacement of materials and errors excepted.