

Sealings for pressure measuring instruments

Applications

- Sealing of process connections with parallel threads

Special features

- Large selection of materials and sizes
- Versions: Flat sealing ring per EN 837-1 (and similar), sealing ring and edge sealing ring
- For process connections with/without centring spigot



Sealings of different materials and sizes

Description

The model contact sealings sit between the stationary surfaces of a parallel screw connection. On reaching the prescribed tightening torque, the screw connection is sealed axially by the resulting surface pressure.

The sealings are used for the sealing of threaded connections at measuring locations and connection elements in apparatus and pipeline construction (e.g. valves, cocks, syphons, connection adapters, overpressure protectors).

Sealings prevent the accidental leakage of gaseous or liquid media into the environment.

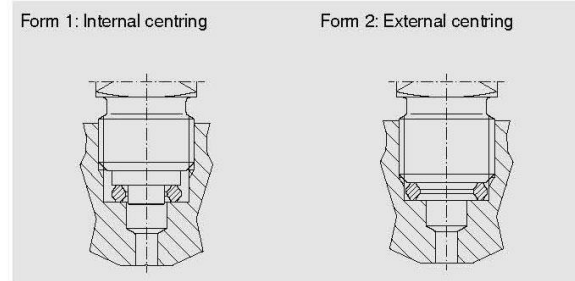
It is recommended that, on each disassembly, the sealing is checked for damage or deformation and, if necessary, it is replaced.

Type	Art. No.
257.01	102616
257.02 A	102617
257.02	102618
257.02-ES	102619
257.03	102620
257.03-ES	139319
257.038	102621

Design forms

- **Form 1**
For internal centring using centring spigot per EN 837-1
- **Form 2**
For external centring in the threaded hole, intended for threaded spigots without centring spigots and without sealing lug

Installation example



Sealing

In addition to the proper sealing function, the sealing enables the easy alignment of instruments and instrumentation accessories to a desired position.

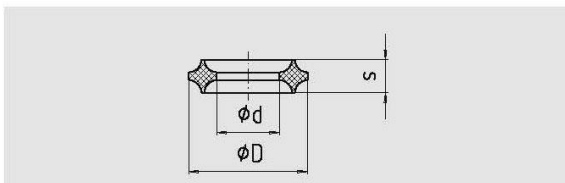
Traditional flat gaskets have the disadvantage that either the instrument or the valve does not end up in the desired reading direction or operating position, or that no sealing is achieved in the ideal position.


Sealings avoid the unscrewing, repeated changing and placing of other flat sealings in different thicknesses, which is otherwise needed.

With the sealing it is possible, once the tightness has been achieved, to turn the part being aligned approximately 1 more rotation to the desired position.

Sealings from stainless steel, as a result of their higher strength and specific form, achieve a high pressure tightness, even at low tightening torques. The version in stainless steel can then only be turned approximately another 1/2 rotation.

Dimensions in mm



Version	For thread	Material	Dimensions in mm			Form	Order number
			D +0.2	d -0.2	s		
	G 1/8	Cu	8 + 0.1	4.1 + 0.1	2.7	1	102616
	G 1/4, M12 x 1.5	Al	9.3	5.4	3.2	1	on request
	G 1/4, M12 x 1.5	Cu	9.3	5.4	3.2	1	on request
	G 1/4, M12 x 1.5	1.4571	9.3	5.4	3.2	1	102619
	G 3/8, G 1/2, M20 x 1.5	Cu	14.8	8	4.2	1	102621
	G 3/8, G 1/2, M20 x 1.5	1.4571	14.8	8	4.2	1	139319
	G 1/4	Al	11	5.5	3.2	2	102617
	G 1/4	Cu	11	5.5	3.2	2	102618
	M12 x 1.5	Cu	9.8	5.5	3.2	2	on request
	G 1/2	Cu	18.2	11	4.2	2	102620

Applicable at temperatures -20 °C...+60 °C / Internal test temperature -25 °C...+65 °C

		Aluminium	Copper	Stainless steel
Material		Al 99.5	CuTeP	X 6 CrNiMoTi 17 12 2
Material No. / Norm		3.0255 / DIN 1712-3 EN AW-1050A / EN 573-3	2.1546 / DIN 17666 CW118C / EN 12164	1.4571 / EN 10088-3
Manufacturing Process		pressed	turned	turned
Heat treatment or condition		360 °C / 2 h / forming gas Furnace cooling	525 °C / 1 h / forming gas Remove furnace insert and cool in it	1020...1120 °C Bright annealing
Hardness		20...25 HB1/2,5	45...60 HB1/5	120...160 HV 2
Surface		metallic bright		
Sealing behavior at rotation	90°	250 bar	450 bar	1500 bar
	180°	350 bar	700 bar	1500 bar
	360°	450 bar	1000 bar	-
Δ d2 in % after		360° rotation approx. 14 %	400° rotation approx. 15 %	270° rotation approx. 9 %

PTFE seals have reached their maximum tightening torque when the joint is tight.

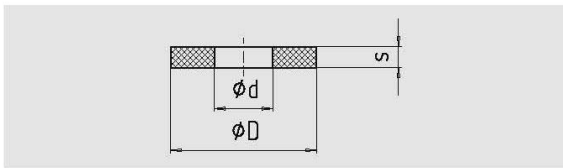
Flat sealing rings per EN 837-1 (and similar)


The dimensions of the sealing rings are harmonised with the EN 837-1 connection standard. The sealing rings are available in copper (Cu), nickel (Ni), asbestos-free Novapress 300 sealing material (NP uni) and plastic (PTFE).

The PTFE flat sealing ring with 0.5 mm thickness is suitable for the mounting of diaphragm pressure gauges with threaded connections and for the option "wetted parts from PTFE". If metal sealings are used, there is a risk of the PTFE lining being damaged.

The 2.0 mm thick PTFE sealing ring is mainly used for instruments and diaphragm seals for the food industry, with which the wetted parts are generally from stainless steel.

Dimensions in mm



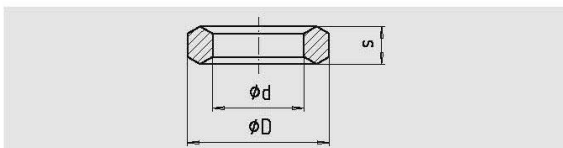
Version	For thread	Material	Dimensions in mm			Order number
			D	d	s	
	G 1/4 ¹⁾	Cu	9.5	5.2	1.5	139107
	G 1/4 ¹⁾	NP uni	9.5	5.2	1.5	on request
	G 1/2 ¹⁾	Cu	17.5	6.2	2	122120
	G 1/2	NP uni	17.5	6.2	2.5	on request
	G 1/2 ¹⁾	Ni	17.5	6.2	2	on request
	G 1/4	PTFE	9.5	5.2	0.5	133875
	G 1/2	PTFE	17.5	6.2	0.5	on request
	G 1/2	PTFE	17.5	7	2	122117


1) corresponds to EN 837-1

Edge sealing rings

Edge sealing rings are commonly used in conjunction with solderless compression fittings with compression rings and are included in the scope of delivery. The edge sealing rings offered here are mainly intended as replacement parts.

Dimensions in mm



Version	For thread	Material	Dimensions in mm			Order number
			D	d	s	
	G 1/4	St	11.3	6	4.5	on request
	G 1/2	St	18.5	12	5	on request
	G 1/2	1.4571	18.5	12	5	on request