



Main Features

- Directly integrated in the pipe
- Excellent cleaning behaviour
- Wetted parts 1.4435 / 1.4404 (316L) or 1.4571 (316Ti)
- Compatible to SIP and CIP processes
- Easy and fast installation

Applications

- Food & Beverage
- Laboratory & Medical

Description

This in-line diaphragm seals are used to design hygienic process connections for pressure gauges and protect the pressure gauges from high temperatures and aggressive process fluids.

In-line diaphragm seals with hygienic process connections ensure efficient cleaning processes and avoid pollutions and developing of bacterias in hygienic production processes.

Diaphragm seals can be mounted to mechanical pressure gauges, switches or transmitters directly or with a flexible capillary. The filling fluid of the measuring system has to be chosen compatible to the application. For hygienic applications a choice of FDA conform filling fluids is available.

Process connection	SMS 1146
Pressure ranges	0 ... 1 bar to 0 ... 40 bar (see table below)
Body material	Stainless Steel 1.4435 (AISI 316L) or 1.4571 (AISI 316Ti)
Diaphragm	Stainless Steel 1.4435 or 1.4404 (AISI 316L)
Surface roughness	Wetted parts Ra ≤ 0.8 µm Option 1359: electropolished, Ra ≤ 0.5 µm (except welding)
Working temperature	-20 ... 225 °C (depending on the filling fluid)
Filling fluids	LRS1: Vaseline (-15 ... +150 °C, FDA conform) LRS10: Vaseline (-20 ... +225 °C, FDA conform) Other filling fluids on request
Gaskets	Not included

Ordering code / Minimum pressure ranges

Code	DN	Pressure gauges ⁽¹⁾		Transmitters ⁽²⁾	P max. ⁽³⁾
		NS 50-63 mm	NS 100-150-160 mm		
1521 ⁽⁴⁾	1"	0 ... 1.6 bar	0 ... 2.5 bar	0 ... 1 bar	40 bar
1523 ⁽⁵⁾	1 ½"	0 ... 1.6 bar	0 ... 2.5 bar	0 ... 1 bar	40 bar
1524 ⁽⁵⁾	2"	0 ... 1.6 bar	0 ... 1.6 bar	0 ... 1 bar	40 bar
1525 ⁽⁵⁾	2 ½"	0 ... 1.6 bar	0 ... 1.6 bar	0 ... 1 bar	40 bar
1526 ⁽⁴⁾	3"	0 ... 1.6 bar	0 ... 1.6 bar	0 ... 1 bar	40 bar

⁽¹⁾ and corresponding compound pressure ranges

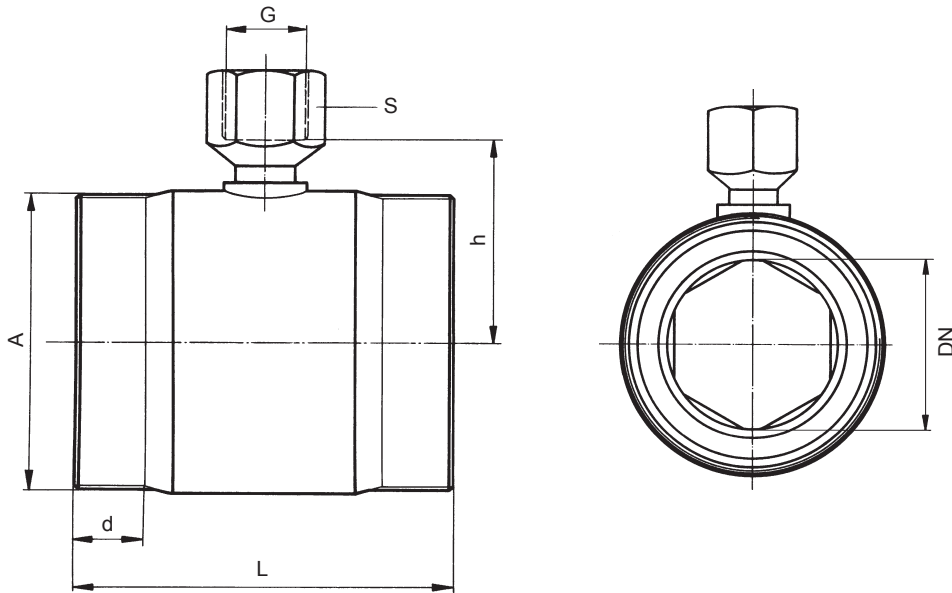
⁽²⁾ lower pressure ranges on request

⁽³⁾ depending on the used fixing elements (not part of the delivery)

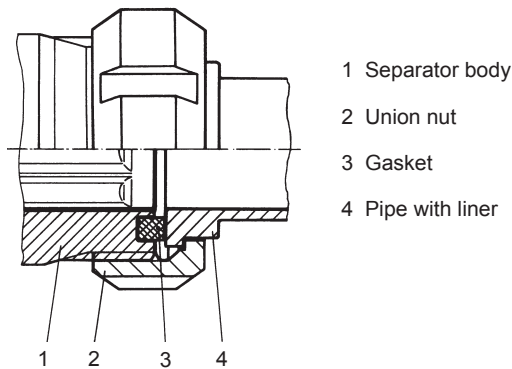
⁽⁴⁾ body material 1.4435 (AISI 316L)

⁽⁵⁾ body material 1.4571 (AISI 316Ti).

Dimensions



Connection example



Dimension chart

DN	A	L	h	G	d	S	Weight kg	Inner shape
1"	40 x 1/6	120	31	G 1/2	13	27	1.0	4-sided
1 1/2"	60 x 1/6	120	41	G 1/2	18	27	2.0	6-sided
2"	70 x 1/6	100	46	G 1/2	18	27	1.9	6-sided
2 1/2"	85 x 1/6	100	54	G 1/2	22	27	2.5	8-sided
3"	98 x 1/6	100	60	G 1/2	22	27	3.0	8-sided

Ordering example

MEX 5 - D 3 0 . B22 / 1521 - 1359 - LRS1

In-line diaphragm seal, DN 1" ←

Option: Electropolished, Ra ≤ 0.5 μm (except welding) ←

Filling fluid LRS1: Vaseline (-15 ... +150 °C, FDA conform) ←