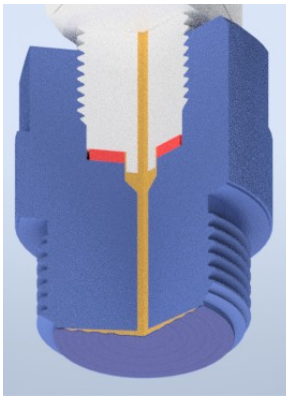
Diaphragm chemical seal type F – male thread

Threaded body with flushed diaphragm according DIN 3852

The diaphragm chemical seal prevents the measured fluid from entering the measuring device. It also serves a damping element to protect the gauge from pressure shocks.

It can be used with mechanical pressure gauges as well as with pressure transmitters



Material

- Diaphragm: SS 316L (1.4435), 316Ti on request (1.4571)
  Hastelloy C-276 or Tantalum
- Body: SS 316L (1.4404), 316Ti on request (1.4571)

Working temperature

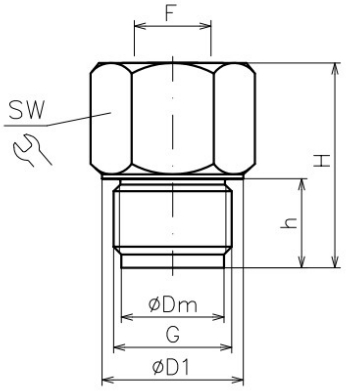
- Measured medium: -20 ... +100°C
  (with cooling tower up to 400°C)
- Ambient temperature -20 ... +60°C
- Other conditions on request

Process side sealing

- Cu or Al ring above the thread
- PTFE tape in the thread
- rubber o-ring in the groove (on request)

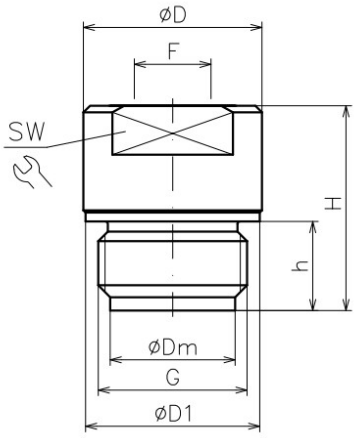
Basic types of chemical seals

BHV	PN	G	F	Dm	D	D1	OK/SW	H	h
typ	[bar]			[mm]					
F12	600	G 1/2”	G 1/4”	Ø 18	-	Ø 26	OK 27	40	15
F34	600	G 3/4”	G 1/4”	Ø 23	-	Ø 31,5	OK 32	42	17
		G 3/4”	G 1/2”	Ø 23	-	Ø 31,5	OK 32	47	17
F10	600	G 1”	G 1/4”	Ø 29,5	Ø 40	Ø 39	SW 36	45	19
		G 1”	G 1/2”	Ø 29,5	Ø 40	Ø 39	SW 36	49	19
F54	600	G 1 1/4”	G 1/4”	Ø 38	Ø 50	Ø 49	SW 41	48	20
		G 1 1/4”	G 1/2”	Ø 38	Ø 50	Ø 49	SW 41	50	20
F64	400	G 1 1/2”	G 1/4”	Ø 42	Ø 58	Ø 55	SW 50	50	22
		G 1 1/2”	G 1/2”	Ø 42	Ø 58	Ø 55	SW 50	52	22
F20	250	G 2”	G 1/2”	Ø 54	Ø 70	Ø 67	SW 60	54	24



Minimal recommended measuring span

Type of chemical seal	Nominal Bourdon tube size	
	DN 63	DN100
F12	100 bar	x
F34	10 bar	60 bar
F10	4,0 bar	16 bar
F54	1,0 bar	2,5 bar
F64	0,6 bar	1,6 bar
F20	0,6 bar	0,6 bar



Completion with measuring instrument

The most common assembly of the chemical seals is with a manometer or transmitter by direct connection (F thread). It can also be adapted for a variant with an extended neck or cooler or capillary line.

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