

Diaphragm seal MD 80

Flange version



- Flush, laser-welded diaphragm
- For DIN and ASME flange connections
- Numerous special materials and coatings (option)
- With bottom instrument connection as cell design (option)



Application For use with Bourdon tube pressure gauges, pressure transducers or pressure switches. For corrosive, highly viscous, polluted, crystallising or hot media. Typical applications areas:

- Chemical industry
- Petrochemistry
- Refineries
- Power plant engineering

Technical specifications

Type
MD 80

Process connection
Stainless steel 316 L,
Flange connection as per EN 1092-1 type B 1
DN 25 to 100 or ASME B 16.5 DN 1" to 4"

Diaphragm
Stainless steel 316 L

Instrument connection
Welded connection

Pressure transmission liquid
Paraffin oil (FM 09), FDA-listed

Pressure ranges
See price list section

Nominal pressure
PN 40
Class 150 to 300

Options

- Process connection**
- Special materials/coatings
 - Other sealing surfaces
 - Cell design

- Diaphragm**
- Special materials: Hastelloy, Monel, nickel, Inconel, Incoloy, platinum, titanium, tantalum, zirconium, other chrome-nickel-steel alloys
 - Coatings/linings:
PFA (up to 200 °C), ECTFE (up to 150 °C)
PTFE (up to 150 °C, up to 100 bar)
Silver (up to 150 °C), gold (up to 200 °C)

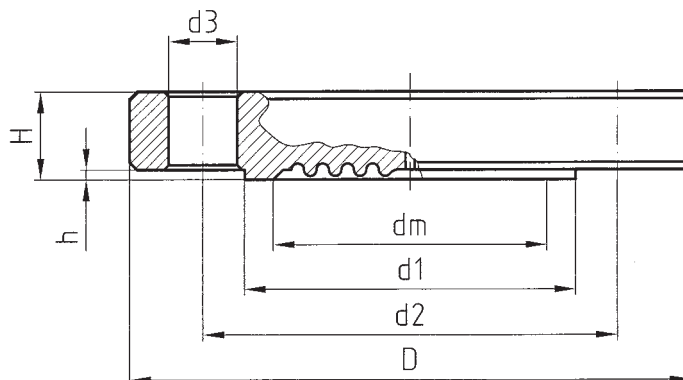
Miscellaneous

- Higher nominal pressures
- Cell design
- Adapter for instrument connection G $\frac{1}{4}$ B/G $\frac{1}{2}$ B
- Cooling element (> 100 °C)
- Capillary tube (back or bottom)
- Other filling liquids
- Customer-specific flanges
- Other nominal diameters

See page 419 for prices.

Diaphragm seal MD 80

Types and dimensions (mm)



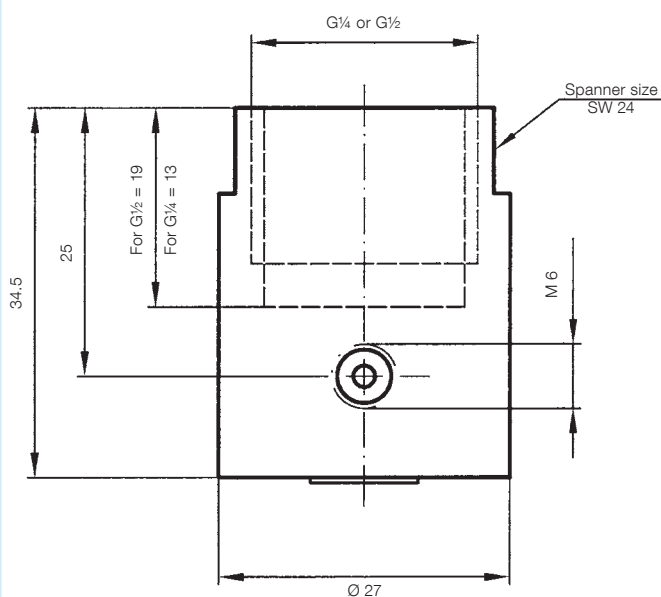
Flange connection as per EN 1092-1 type B 1

DN	PN	D	d1	d2	d3	H	h	dm
25	40	115	68	85	4x14	18	3	28
40	40	150	88	110	4x18	18	3	48
50	40	165	102	125	4x18	18	3	48
80	40	200	138	160	8x18	24	3	48
100	40	235	162	190	8x22	24	3	48

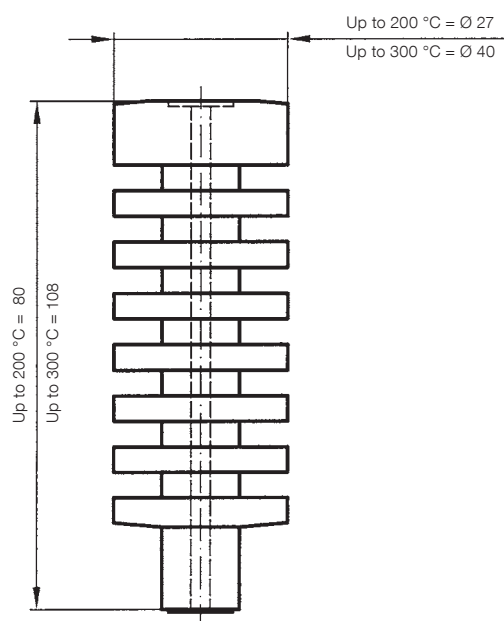
Flange connection as per ASME B 16.5

DN	CL	D	d1	d2	d3	H	h	dm
1"	150	108	50.8	79.4	4x15.9	14.3	1.6	28
	300	123.9	50.8	88.9	4x19.1	17.5	1.6	28
1½"	150	127	73.2	98.6	4x15.9	17.5	1.6	36
	300	155.6	73.2	114.3	4x22.4	22.4	1.6	36
2"	150	152.4	92.1	120.7	4x19.1	19.1	1.6	48
	300	165.1	92.1	127	8x19.1	25.4	1.6	48
3"	150	190.5	127	152.4	4x19.1	23.9	1.6	48
	300	209.6	127	168.3	8x22.4	31.8	1.6	48
4"	150	228.6	157.2	190.5	8x19.1	23.9	1.6	48
	300	254	157.2	200.1	8x22.3	31.7	1.6	48

Adapter for instrument connection G¼/G½ with filling port



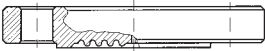

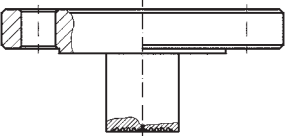
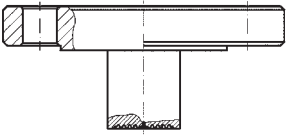
Cooling element, can be welded at both ends



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Diaphragm seals MD 80/81

DG: M

	MD 80 flange version, flange connection as per EN 1092-1 type B 1							
	Nominal diameter DN	Nominal pressure PN	Minimum range* (in bar) at nominal size				Part no.	Price €
			63	100	160	DMU		
	25	40	4	4	4	0.6	31333W	
	40	40	4	4	4	0.6	31336W	
	50	40	0.6	0.6	0.6	0.6	31339W	
	80	40	0.6	0.6	0.6	0.6	31385W	
100	40	0.6	0.6	0.6	0.6	31388W		
	MD 80 flange version, flange connection as per ASME B 16.5							
	Nominal diameter DN	Nominal pressure PN	Minimum range* (in bar) at nominal size				Part no.	Price €
			63	100	160	DMU		
	1"	150	4	4	4	1	31393W	
		300	4	4	4	1	31394W	
	1½"	150	4	4	4	1	31396W	
		300	4	4	4	1	31397W	
	2"	150	0.6	0.6	0.6	0.6	31399W	
		300	0.6	0.6	0.6	0.6	31400W	
	3"	150	0.6	0.6	0.6	0.6	31402W	
		300	0.6	0.6	0.6	0.6	31403W	
	4"	150	0.6	0.6	0.6	0.6	31405W	
		300	0.6	0.6	0.6	0.6	31406W	
	MD 81 tubus flange version, tubus length 50 mm, flange connection as per EN 1092-1 type B 1							
	Nominal diameter DN	Nominal pressure PN	Minimum range* (in bar) at nominal size				Part no.	Price €
			63	100	160	DMU		
	50	40	1	2.5	---	1	31917W	
80	40	0.6	0.6	1	1	31921W		
100	40	0.6	0.6	1	1	31924W		
	MD 81 tubus flange version, tubus length 50 mm, flange connection as per ASME B 16.5							
	Nominal diameter DN	Nominal pressure PN	Minimum range* (in bar) at nominal size				Part no.	Price €
			63	100	160	DMU		
	1"	150	4	4	---	1	31938W	
2"	150	1	2.5	---	1	31929W		
3"	150	0.6	0.6	1	1	31931W		
Extra charges €								
		Nominal diameter DN						
Tubus length	50/2"	80/3"		100				
100 mm								
150 mm								

* Valid for standard pressure transmission liquid with direct mounting (without capillary tube) at a room temperature and temperature of the medium of 20 °C.



See page 420/424 for extra charges for options, mounting and accessories.

Extra charges for diaphragm seals MD 80/81

DG: M

Type of sealing surface		MD 80	MD 81
		Extra charges €	Extra charges €
Groove, type D EN 1092-1 (for stainless steel)			
Tongue, type C EN 1092-1 (for stainless steel)			
Groove, type RJF ASME B 16.5			
Capillary connection			
Capillary connection back			
Capillary connection bottom			
Special materials for wetted parts*	Nominal diameter		
Hastelloy C276	DN 25		
	DN 40		
	DN 50		
	DN 80		
	DN 100		
Tantalum	DN 25		
	DN 40		
	DN 50		
	DN 80		
	DN 100		
Monel 400, nickel, Inconel, platinum, titanium			
Coatings*			
PFA (up to 200 °C)	DN 25		
	DN 40		
	DN 50		
	DN 80		
	DN 100		
ECTFE (up to 150 °C)	DN 25		
	DN 40		
	DN 50		
	DN 80		
	DN 100		
PTFE, silver, gold	All nominal diameters		

* Please enquire for special materials for groove or tongue version.