Diaphragm Seals Flange type with extension tube

Flange connection according to DIN EN, ASME or JIS
Membrane flush welded

MDM 7515v
MDM 7525v

Standard Version

Information on applications, properties, metrological influences such as temperature, level difference, floating time and others, can be found in model overview 7000. Furthermore, you will also find indications on other chemical seal versions.

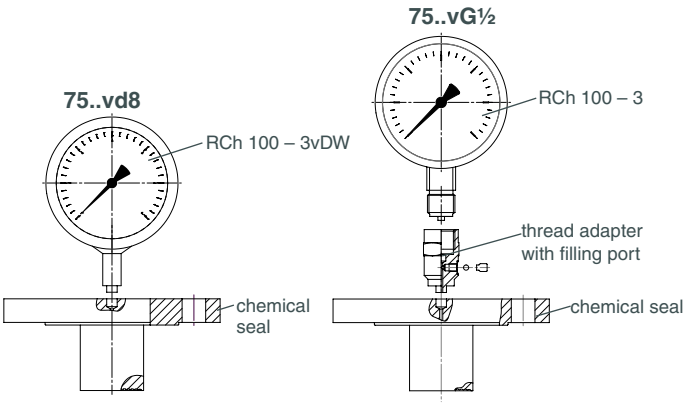
Application
Diaphragm seals of the type series 75.. are suitable for aggressive, contaminated and hot media.
Numerous common pressure gauges of our supply programme can be equipped with these chemical seals, but also pressure switches, pressure transmitters and pressure transducers, depending on the nominal size of the chemical seal up to PN 40 resp. Class 300.

Construction
The diaphragm is welded free of dead space to the process side of the chemical seal.

Model 75..vd8 has an orifice d8 as instrument connection for welding to a pressure gauge with process connection d8x5, e.g. RCh 100 – 3vDW, cooling element or capillary line.
Leakage cannot occur at the welded connection of pressure gauge / upper part and the filling port, which is not accessible from the outside.
The parts can be easily cleaned externally.

Model 75..vG½ has a measuring instrument adapter with female thread for direct mounting to measuring instruments with male thread. The screwed connections pressure gauge / adapter and the filling port must not be loosened or opened at any time, or else filling fluid will leak and the measuring unit loses its efficiency.

NACE resp. Sour Gas Application
The material we use complies with the NACE MR 0175 standards (NACE 0103 upon request). Only material with test certification is used.



Chemical Seal and Process Connection
Stainless steel 1.4404 (316 L)

Instrument Connection
75..vd8 : for welding to measuring instrument, capillary line or cooling element with welding connection (recommended for media temperatures higher than 100 °C (212 °F))
75..vG ½ : G ½ female

Diaphragm
Stainless steel 1.4435 (316 L) flush welded with chemical seal,
He-leak detection up to 10^{-9} mbar l/s
Effective diaphragm diameter dM, see tables on page 3

Sealing Face
DIN EN 1092-1 Form B, sealing face B1, flange stamped B, Raised Face (RF) for ASME B 16.5

Nominal Pressure
See tables on page 3

Minimum Span Pressure Gauges

See tables on page 3

t_K-Value (mbar/10K) (Temperature Coefficient of the Chemical Seal)

See tables on page 3 (for silicone oil FA 1)

Accessories

Capillary line, cooling elements: see data sheet 7002
Process connection pieces and sealings do not belong to the standard supply programme, but are available upon request.

Construction / Filling / Certificates

Information on mounting, filling and certificates are available upon request.

Ordering Infomation Chemical Seals

Please note our detailed ordering information
- in model overview 7000
- in the check lists for pressure measuring instruments with chemical seals and
- in the data sheets of the requested pressure measuring instrument and add the information for the respective chemical seal:

- Model: e.g. MDM 7515vd8, MDM 7525vG½
- Nominal case size: e.g. NPS 2", DN 25
- Nominal pressure: e.g. Class 300, PN 40
- Extension tube length (TuL), extension tube diameter (TuD) see tables on page 3

The reference temperature is +20 °C (+68 °F). Please indicate, if a working temperature (tA) deviating from +20 °C (+68 °F) max. is required (dial inscription tA...).

Example: Pressure gauge....,
Chemical seal: MDM 7515vd8, DN 50,
PN 40, TuL 100, TuD 76, tA +80 °C

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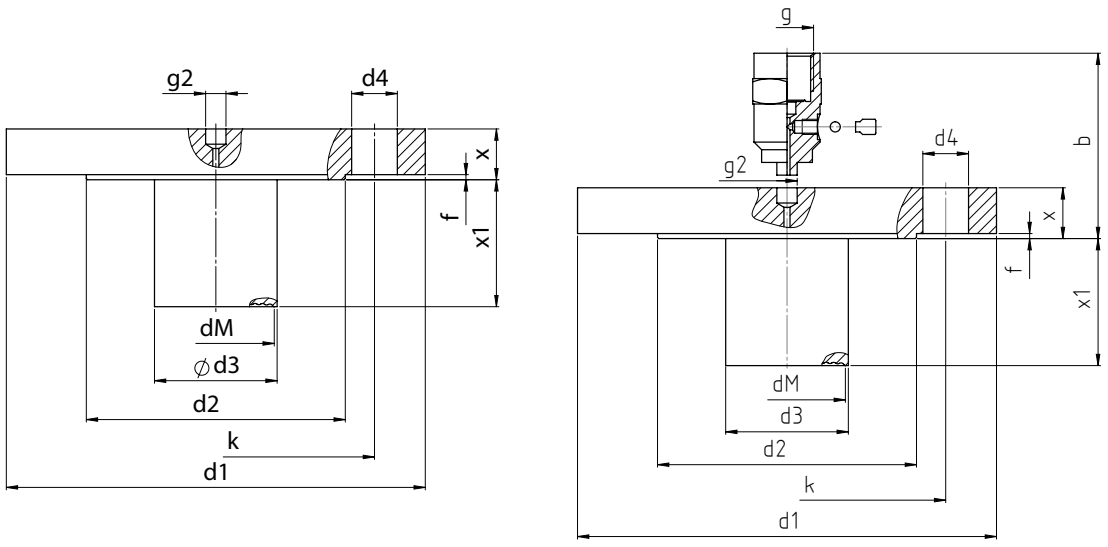
Ordering Information, Further Options

Basic Models:	Diaphragm Seals					MDM 75..v
Instrument connection:	orifice d8 for direct welding to measuring instrument, with cooling element or with capillary line					**75..vd8**
	G ½ female (½" BSP) option: G ¼ female (¼" BSP)					**75..vG ½**
Chemical seal: Flange: stainless steel 1.4404 (316 L)		**Flange**	**Extension tube**	**Sealing Face**	**Diaphragm**	
	Standard					
	Stainless steel 316 L	stainless steel 316 L	stainless steel 316 L	stainless steel 316 L	stainless steel 316 L	**Stainless steel 316 L**
	Option wetted parts special material (lining)					
	Tantalum	stainless steel 316 L	Tantalum	Tantalum	Tantalum	**Stainless steel 316 L / Tantalum**
	Options flange stainless steel, wetted parts special material					
	Hastelloy C276	stainless steel 316 L	Hastelloy C276	Hastelloy C276	Hastelloy C276	**Stainless steel 316 L / Hastelloy C276**
	Monel 400	stainless steel 316 L	Monel 400	Monel 400	Monel 400	**Stainless steel 316 L / Monel 400**
	Options solid made of special material					
	Titanium	Titanium	Titanium	Titanium	Titanium	**Titanium**
	Options wetted parts stainless steel, diaphragm special material					
	Tantalum	stainless steel 316 L	stainless steel 316 L	stainless steel 316 L	Tantalum	**Stainless steel 316 L / Diaphragm Tantalum**
	Hastelloy C276	stainless steel 316 L	stainless steel 316 L	stainless steel 316 L	Hastelloy C276	**Stainless steel 316 L / Diaphragm Hastelloy C276**
	Monel 400	stainless steel 316 L	stainless steel 316 L	stainless steel 316 L	Monel 400	**Stainless steel 316 L / Diaphragm Monel 400**
Process connection:	according to DIN EN 1092-1 or ASME					
Further options:	**Form of sealing face** sealing face according to DIN EN 1092-1 Form B2, stamped B2, A, C, D, E, F, G, ASME RJF-circular groove					
	Other special materials upon request, e.g.					
	2.4617 Hastelloy B2 2.4610 Hastelloy C4 1.4462 Duplex					
	in the case configurations: solid made of special material flange stainless steel 316 L / wetted parts made of special material wetted parts stainless steel 316 L / diaphragm made of special material					
	Coating on extension tube, diaphragm and sealing face PFA ECTFE gold/rhodium (protection against hydrogen diffusion) PTC					
Special versions:	other instrument connections upon request, whereas we do not recommend NPT female threads					
	other material combinations upon request					
	versions according to other standards (such as JIS), other sealing faces, shapes and nominal case sizes upon request					
	special extension tube length or extension tube diameter upon request					
	calculation of the temperature related additional error for the whole pressure measuring unit					

Dimensional Data (mm), Weight (kg), Minimum Span (bar) and t_k-Value (mbar/10K)

Flange Connection Similar to DIN EN 1092-1 Form B1 / ASME B16.5



MDM 7515v DIN EN 1092-1

DN	PN	b	d1	d2	TuD d3	d4	dM	f	g2	g	k	x	TuL x1	Minimum span	t_k-value	Weight (approx.) vd8	Weight (approx.) vG½
50	25/40	63	165	102	48.3	4xØ18	46	3	d8	G½	125	20	50	0 – 1[1]	0.45	3.44	3.67
													100			3.76	3.99
													150			4.07	4.30
													200			4.37	4.60
80	10/16	63	200	138	76	8xØ18	72				160	20	50	0 – 0.6[1]	0.64	5.25	5.48
													100			5.81	6.04
													150			6.37	6.60
													200			6.92	7.15
	25/40	67										24	50			6.15	6.38
													100			6.71	6.94
													150			7.27	7.50
													200			7.82	8.05
100	10/16	63	220	158	94	8xØ18	80				180	20	50		0.54	6.25	6.48
													100			7.50	7.73
													150			8.75	8.98
													200			10.00	10.23
	25/40	67	235	162		8xØ22					190	24	50			8.15	8.38
													100			9.40	9.63
													150			10.70	10.93
													200			12.00	12.23

MDM 7525v ASME B16.5

NPS	Class	b	d1	d2	d3	d4	dM	f	g2	g	k	x	x1	Minimum span	t_k-value	Weight (approx.) vd8	Weight (approx.) vG½
2"	150	62.1	152.4	91.9	48.3	4xØ19.1	46	1.6	d8	G½	120.7	19.1	50	0 – 1[1]	0.45	3.84	4.07
													100			4.16	4.39
													150			4.47	4.70
													50			4.77	5.00
3"	150	66.9	190.5	127	76	4xø19.1	72				152.4	23.9	50	0 – 0.6[1]	0.64	6.01	6.24
													100			6.56	6.79
													150			7.12	7.35
													200			7.67	7.90
	300	71.4	209.6			8xø22.4					168.1	28.4	50			7.90	8.13
													100			8.46	8.69
													150			9.02	9.25
													200			9.57	9.80
4"	150	66.9	228.6	157.2	94	8xø19.1	80				190.5	23.9	50		0.54	8.63	8.86
													100			9.90	10.13
													150			11.15	11.38
													200			12.40	12.63
	300	74.8	254			8xø22.4					200.2	31.8	50			13.13	13.36
													100			14.40	14.63
													150			15.65	15.88
													200			16.91	17.14

[1] for Bourdon tube pressure gauges NCS 100
[2] for Bourdon tube pressure gauges RCh / RChG 100 – 3 without limit switch contact assembly