

# Diaphragm Seals

Female Thread, PN 600

MDM  
7280v...

## Standard Version

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

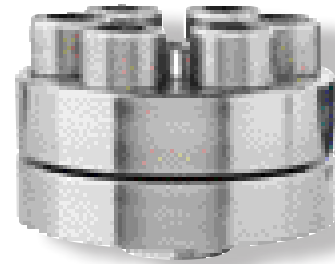
### Construction

The diaphragm is welded to the upper part. The lower part with process connection and the upper part are connected by 6 screws M 20.

Bourdon tube pressure gauges, pressure switches, pressure transmitters, pressure transducers and other pressure measuring instruments can be provided with diaphragm seals of this type series.

**Model 7280vG $\frac{1}{2}$**  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, or else filling fluid will leak and the measuring unit loses its efficiency.

**Model 7280vd8** has an orifice d8 for the connection of measuring instruments for welding to a pressure gauge with process connection d8x5, e.g. RCh 100-3vDW, cooling element or capillary line. Leakage can not occur at the welded connection of pressure gauge / upper part and the filling port, which is not accessible externally. The parts can be cleaned externally.



### Nominal Pressure

PN 600

### Screws

made of galvanised steel, 6 screws M20

### Sealing

turned on, metallic

### Minimum Span Pressure Gauges:

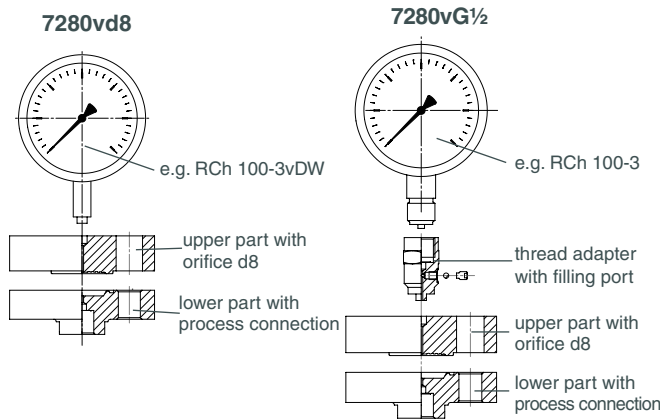
0-400 bar (0-5,000 psi) and 0-600 bar (0-10,000 psi)  
for other measuring instruments: upon request

### $t_k$ -value (mbar/10K) (temperature coefficient of the chemical seal):

0.8 mbar / 10K (for silicone oil FA1)

### Special Options among others:

- Other instrument connections upon request, whereas we do not recommend NPT-female threads
- Other material combinations (process connection, diaphragm) than on page 2 upon request
- Calculation of the temperature-related additional error for the whole measuring system



### Upper Part

1.4435 (316 L stainless steel) resp. 1.4404 (316 L stainless steel)

### Instrument Connection

7280vG $\frac{1}{2}$ : G  $\frac{1}{2}$  female

7280vd8: orifice d8

### Diaphragm

1.4435 (316 L stainless steel) welded to upper part,  
He-leak detection up to  $10^{-9}$  mbar l/s  
Effective diaphragm diameter  $d_M = 38$  mm (1.5")

### Lower Part with Process Connection

316 L (stainless steel), female thread G  $\frac{1}{2}$   
Material and connection options, see page 2

### Accessories:

Capillary line, cooling elements: see data sheet 7002  
Other accessories: available upon request

### Construction / Filling / Certificates:

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

### Ordering Information Chemical Seals:

See page 2

The reference temperature is  $+20$  °C ( $+68$  °F).

Please specify, if a  $+20$  °C ( $+68$  °F) deviating working temperature ( $t_A$ ) is required (dial inscription  $t_A$ ...).



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**7280**

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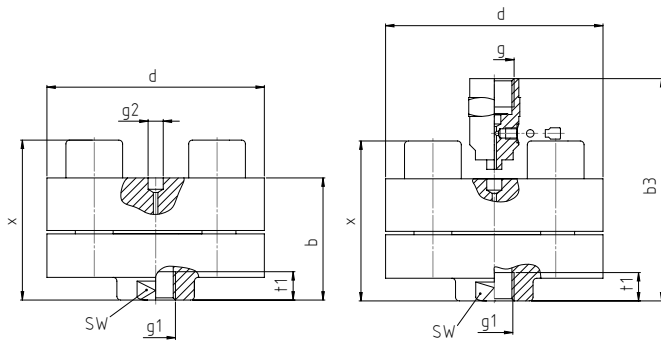
## Further Options regarding Ordering Information

Basic Models:		Diaphragm seal, PN 600	MDM 7280v		
<b>Instrument Connection:</b>	G ½ female		7280vG ½		
	option: G ¼ female		7280vG ¼		
	orifice d8 for direct welding to measuring instrument, cooling element or capillary line		7280vd8		
<b>Chemical Seal:</b>		<b>Lower Part</b>	<b>Diaphragm</b>		
		with process connection			
	Upper part:	<b>Standard</b>			
	1.4435 (316 L stainless steel)	<b>316 L stainless steel</b>	316 L stainless steel	1.4435 (316 L stainless steel)	<b>316 L stainless steel, PN 600</b>
	resp. 1.4404 (316 L stainless steel)	<b>Options</b>			
		<b>Monel</b>	Monel 400 2.4360	Monel 400 2.4360	<b>Monel, PN 600</b>
		<b>Hastelloy</b>	Hastelloy C4 2.4610	Hastelloy C276 2.4819	<b>Hastelloy, PN 600</b>
	<b>Titanium</b>	Titanium 3.7035	Titanium 3.7035	<b>Titanium</b> (see page 3 for drawing)	
<b>Process Connection</b>					
<b>Female Thread:</b>	standard thread	G½ female	<b>G½ female</b>		
	options:	female thread ½", 1" or 2" NPT (G1 or G2 upon request) male thread ½" NPT or G½B (with adapter); 1" or 2" NPT, G1B or G2B upon request	<b>½", 1", 2" NPT each female ½" NPT, G½B 1" NPT, 2" NPT, G1B or G2B</b>		
		others upon request			
<b>Further options:</b>	diaphragm made of	1.4571 Stainless steel	<i>(order at present still in clear text)</i>		
		1.4539 Uranus B6			
		1.4462 Duplex			
		2.4610 Hastelloy C4			
		2.4819 Hastelloy C276			
		2.4856 Inconel 625			
		2.4360 Monel 400			
		2.4068 Nickel			
		– Tantalum (≤ 250 °C/ 482 °F)			
	screws made of	stainless steel			
<b>Examples:</b>			<b>MDM 7280vG ½, PN 600, G ½ female</b>		

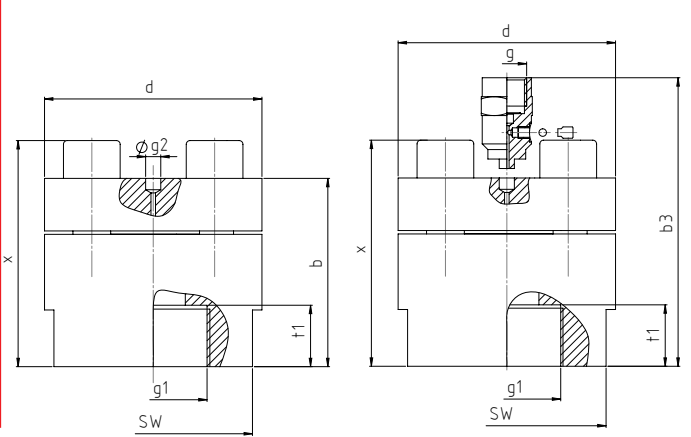
# Dimensional Data and Weights

## Female Thread Connections

G 1/2 (1/2" BSP), 1/2" NPT



1" NPT, 2" NPT



### Dimensional data (mm / inches) and weights (kg / lb)

g1	b	b3	t1	d	g	g2	SW	x	(approx.) weight	
									vd8x5	vG 1/2
G 1/2	65 2.56	108 4.25	19 .75	115 4.53	G 1/2	d8	36 1.42	85 3.35	3.53	3.66
1/2" BSP									7.78	8.07
1" NPT	100 3.94	143 5.63	32 1.26				105 4.13	120 4.72	6.25	6.38
2" NPT									13.78	14.07
									6.05	6.18
									13.34	13.62

