

Diaphragm Seals

Male Thread or Flange Connection
PN 250 (3,500 lb/sq.in)

Model **MDM 7211**

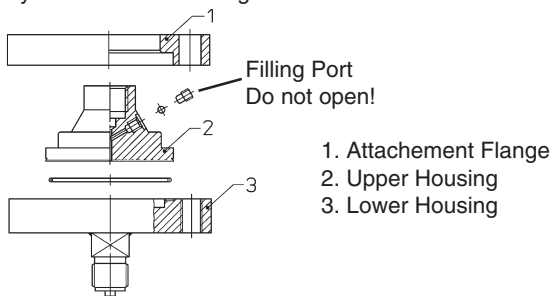
Application

Chemical seals model MDM 7211 are suitable for aggressive, thick or viscous fluids or hot media. Different materials can be combined, and different connection types and sizes. This way our diaphragm seals series MDM 72.. are available in suitable variations for innumerable applications and media. Pressure gauges can be attached, but also pressure switches or transmitters with pressure ranges between 160 and 250 bar (**2,000 to 3,500 psi**). For lower pressure ranges see data sheet 7210 (MDM 7210), and for higher pressure ranges see data sheet 7280 (MDM 7280).

Further details about advantages and performances of chemical seals and important explanations about the required ordering information are on general information leaflet 7000, where you will also find an overview of other chemical seal models.

Construction

The membrane is welded to the upper housing. The diaphragm seals are provided with a filling port in the upper part to simplify the filling of the complete measuring system after mounting and evacuation of the system. A special screw closes the filling port afterwards. This screw may not be opened. The lower housing with process connection (male thread connection or flange) and the upper housing are tied together by an attachment flange and 10 bolts M 12.



Standard Configuration

Upper Housing with Instrument Connection

316 stainless steel (1.4571), instrument connection 1/2" BSP female

Membrane

316 stainless steel (1.4435) welded to the upper housing; effective Ø of the membrane 64 mm (**2.52"**)

Pressure Ranges

Suitable for pressure gauges with ranges
0/160 bar and 0/250 bar (**2,000 psi to 3,500 psi**)

Lower Housing with Process Connection

Carbon steel zinc plated, process connection G 1/2 B (1/2" BSP male)

Gasket

Perbunan (NBR, "buna N")

Attachment Flange

Carbon steel zinc plated

Bolts

Carbon steel zinc plated

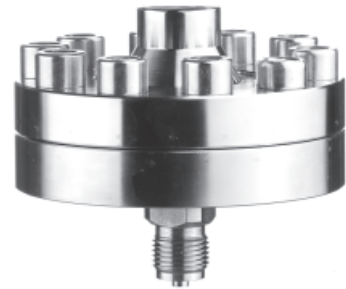
Filling Fluid

Silicone oil

Reference Temperature

+20 °C (**68 °F**).

Dimensional drawings see reverse side.



Optional Special Configurations

- Instrument connection 1/4" NPT, 1/2" NPT or 1/4" BSP female
- Process connection male thread 1/4" NPT, 1/2" NPT or others; flanges according to DIN EN or ASME
- Membrane tantalum, hastelloy B2 or C 276, Monel metal (400), titanium or others, welded to the upper housing
- Wetted parts: lower housing 316 stainl. steel (1.4571), gasket viton; lower housing hastelloy C4, membrane hastelloy C276, gasket viton; lower housing Monel metal, membrane monel metal, gasket viton; others upon request
- Attachment flange and bolts 316 stainl. steel (1.4571/1.4401)
- Other calibration temperatures than +20 °C (**+68 °F**)
[Please state the exact working conditions!
Max. 200 °C (**392 °F**) adjustable at the diaphragm seal. Use a cooling element or capillary line (see below) to keep away the temperature from the instrument, compare general info. 7000.]
- **Capillary line** between diaphragm seal and instrument
(To consider: A mounting device for the measuring instrument is required, such as a rear flange or a front flange for pressure gauges, or a gauge holder bracket. The allowed length and configuration has to be suitable to pressure range and filling fluid; details upon request.)
- **Cooling element** (strongly recommended for medium temperatures +100 °C [+212 °F] and up, in case that the diaphragm seal shall be mounted to the gauge without capillary line)
- Filling fluid glycerine, Halocarbon oil, or others

How to Order:

Please note the detailed information about how to order on our general information leaflet 7000 and on the data sheet for the measuring instrument that shall be attached.

Model code: **MDM 7211**

Instrument connection: **1/2" BSP female** (standard)

Material of wetted parts: **Carbon steel** zinc plated (standard), others see above

Process connection: **1/2" BSP male** (standard)
others see above

Material of attachment flange and screws: **Carbon steel** zinc plated (standard), others see above

Special options: see above



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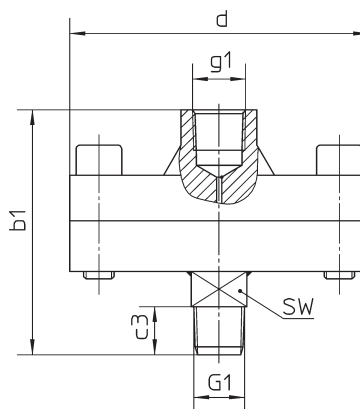
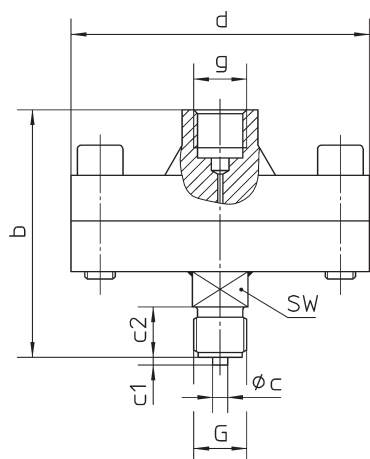


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Dimensional Data and Weight

Process connection male thread G ½ B (½" BSP), ½" NPT



Dimensions (mm / inches) and Weight (kg / lb)

d	b ^{±2}	b1 ^{±2}	c	c1	c2	c3	g	g1	G	G1	SW	Weight (approx.)
118	98	97	6	3	20	19	G ½ ½" BSP female	½" NPT female	G ½ B ½" BSP male	½" NPT male	22	3,000
4.65	3.86	3.82	0.24	0.12	0.79	0.75					0.87	6.60

DIN EN or ASME flanges upon request.