

# Diaphragm Seal

Compact type, high pressure connection, PN 1000

MDM 7952

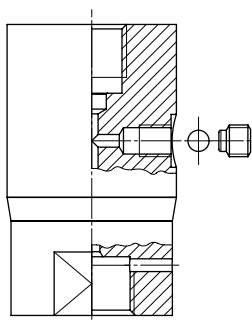
Information on applications, features, metrological influences such as temperature, level difference, floating time, etc., can be found in model overview 7000. Furthermore, you will find information on other chemical seal versions.

## Application

The diaphragm seal models MDM 7952 are specially designed for the use under high pressure. They are equipped with a high pressure connection on the process side. Despite the high permissible operating pressure, these chemical seals are extremely compact and thus also suitable for confined installation conditions. Diaphragm seals model MDM 7952 are often applied in chemical plants with critical process liquids under high pressure. Various special materials are available.

## Construction

Membrane, upper and lower part are welded. Due to the completely welded design, no additional seals are required in the chemical seal. The entire measuring system is completely evacuated, filled with a liquid specially suited for high pressures and then hermetically sealed.



Do not loosen any connection of the completed system, otherwise filling fluid will leak and the pressure measuring system will lose its functional capability.

## Standard Versions

### Process Connection

High pressure M 16x1.5 female

### Upper and Lower Part

Stainless steel 316L (1.4404), welded

### Diaphragm

Stainless steel 316L (1.4435), flush welded to upper and lower part, effective diaphragm diameter  $d_M = 21$  mm (0.83")

### Nominal Pressure

PN 1000

### Instrument Connection<sup>1)</sup>

G 1/4 female

### Filling Liquid

Glycerin (FN3)

### Pressure Ranges Measuring Instrument

Bourdon tube pressure gauge NCS 63 (2 1/2")

0 – 10 bar to 0 – 1000 bar (0 – 160 psi to 0 – 15000 psi)

corresponding pressure ranges for other measuring instruments upon request

<sup>1)</sup> diaphragm seals not mounted to a pressure measuring instrument are supplied with a filling port in the upper part of the chemical seal as standard

<sup>2)</sup> specification only required for chemical seals supplied unmounted



## Options

- Other filling fluid, according to the medium requirement
- Process connection:  
MDM 7952 (female thread):  
high pressure 1/16" – 18 UNF, 1/4" NPT, 1/2" NPT  
MDM 7952.1 (male thread):  
1/2" NPT, 1/4" NPT
- Special materials for lower part and diaphragm, or for the entire chemical seal, e.g. other stainless steel grades, Hastelloy C4 (2.4610) or C276 (2.4819)

## Special Versions Upon Request

- Other materials or material combinations
- Other instrument or process connections

## Ordering Information Chemical Seals

Please regard our detailed ordering information

- in model overview 7000
- in the checklists for pressure measuring instruments with chemical seal
- in the data sheet of the required pressure measuring instrument and add the information for the chemical seal model MDM 7952

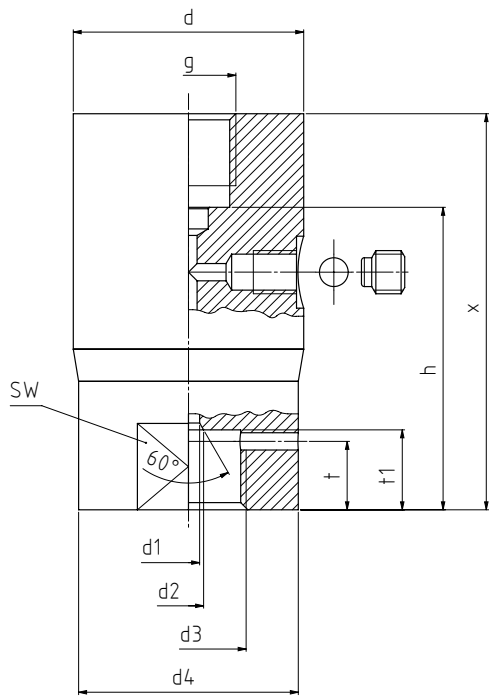
The reference temperature is +20 °C (+68 °F). Please specify if an operating temperature ( $t_A$ ) deviating from +20 °C (+68 °F) is required (dial inscription  $t_{A...}$ ).

<b>Model</b>	MDM 7952
<b>Process connection</b>	e.g. high pressure M 16x1.5 female
<b>Nominal pressure</b>	PN 1000
<b>Material</b>	e.g. stainless steel 316L (1.4404)
<b>Instrument connection<sup>2)</sup></b>	e.g. G 1/4 female
<b>Option, if necessary</b>	see above

### Example

MDM 7952, high pressure M 16x1.5, PN 1000, stainless steel 316L (1.4404), G 1/4 female

## Connection, Dimensional Data and Weight



**Dimensional Data (mm / inch) and Weight (kg / lb)**

d	d1	d2	d3	d4	g	h	t	t1	x <sup>±1</sup>	SW	approx. weight
32	2.4	4.3	high pressure	30	G $\frac{1}{4}$	42	9.5	11	55	27	0.25
<b>1.26</b>	<b>0.09</b>	<b>0.17</b>	M 16x1.5	<b>1.18</b>		<b>1.65</b>	<b>0.37</b>	<b>0.43</b>	<b>2.17</b>	<b>1.06</b>	<b>0.55</b>