

# back side diaphragm seal for high pressure, with threaded connection

# MGS9/1A



Diaphragm seals are designed to isolate the sensing element of pressure gauges, pressure switches and electronic pressure transmitter from process fluids which may be corrosive, viscous, sedimentous and/or with a high temperature. The diaphragm is mechanically clamped between the upper housing and intermediate ring and is leak proof tested to guarantee fill fluid separation from process fluid. Model MGS9/1A0 is cleaned by removing the lower housing from the intermediate ring. Both models are without sealing gaskets. This construction feature and its compact design suits many application that require frequent maintenance, for model MGS9/1A0.

## 4.1AS - MGS9/1AS

**Working pressure:** from 0...6000 to 0...8000 psi; (from 0...400 bar to 0...600 bar).

**Working temperature:** -49...+302 °F (-45°C...+150°C).

**Accuracy\*:** (add to instrument accuracy) ±0,5% for direct mounting; ±1% for capillary mounting.

**Instrument connection:** AISI 316 st. st.

**Diaphragm:** metallic seal,

4 - AISI 316L st.st.,

9 - Hastelloy C276,

6 - Monel 400.

**Process connection:**

4 - AISI 316 st.st.,

5 - AISI 316 L st.st.

**Clamp bolts:** high tensile carbon steel.

**Filling liquid:** silicon oil.

## 4.1A0 - MGS9/1A0

**Working pressure:** from 0...1000 to 0...6000 psi; (from 0...60 bar to 0...400 bar).

**Working temperature:** -49...+302 °F (-45°C...+150°C).

**Accuracy\*:** (add to instrument accuracy) ±0,5% for direct mounting; ±1% for capillary mounting.

**Instrument connection:** AISI 316 st. st.

**Diaphragm:** metallic seal,

4 - AISI 316L st.st.,

9 - Hastelloy C276,

6 - Monel 400.

**Intermediate ring:** AISI 316 st.st.

**Process connection:**

4 - AISI 316 st.st.,

5 - AISI 316 L st.st.

**Clamp bolts:** stainless steel.

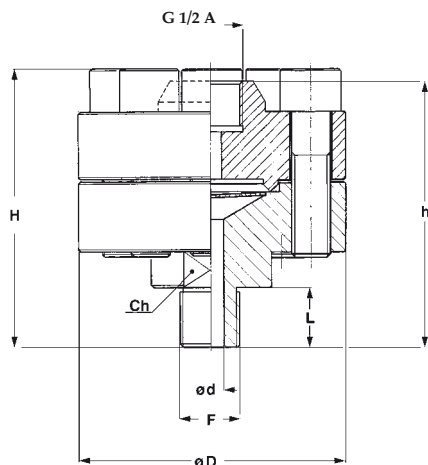
**Filling liquid:** silicon oil.

\* at 68°F (20 °C) process temperature (or state temperature when ordering)

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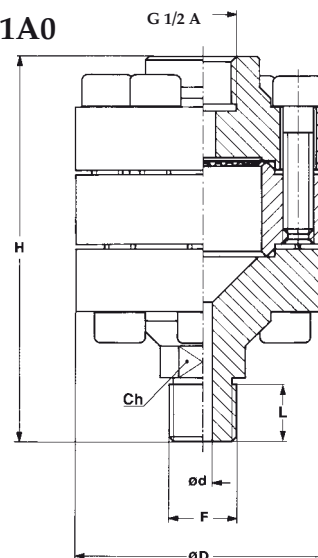
# MGS9/1A

## MGS9/1AS



F	d	H	h	L	D	Ch
<b>41M</b> - G 1/2 B	0.27"	3.66"	3.50"	0.78"	3.50"	1.41"
<b>43M</b> - 1/2 NPT	(7)	(93)	(89)	(20)	(89)	(36)

## MGS9/1A0



F	d	H	L	D	Ch
<b>41M</b> - G 1/2 B	0.23"	4.78"	0.78"	3.14"	0.86"
<b>43M</b> - 1/2 NPT	(6)	(121,5)	(20)	(80)	(22)

dimensions : inches (mm)

## ASSEMBLING

All diaphragm seals are mounted on the instruments and fixed by an aluminium protection label. For applications with capillary: should diaphragm seal and instrument not be at the same level, instrument adjustment is required. (For use and installation, see data sheet "MGS9")

<b>D</b> - Direct
<b>T</b> - Cooling extension
<b>1</b> - Capillary AISI304 st.st., 236" max (6 mt max)
<b>9</b> - Capillary AISI304 st.st., covered with AISI304 st.st. armour, 236" max (6 mt max)
<b>6</b> - Capillary AISI316 st.st., covered with AISI316 st.st. armour, 236" max (6 mt max)

## OPTIONS

Model
<b>B</b> - Silicon liquid "B" for process fluid temperature from -40°F to +482°F (from -40°C to +250°C)
<b>C</b> - Silicon liquid "C" for process fluid temperature from -14°F to +662°F (from -10°C to +350°C)
<b>E</b> - Fluorinated liquid "E" for process fluid temperature from -40°F to +302°F (from -40°C to +150°C)
<b>R20</b> - Adaptor G 1/2 A M/F
<b>R22</b> - Adaptor G 1/2 A M x 1/2 - 14 NPT F
<b>R21</b> - Adaptor G 1/2 A M x 1/4 - 18 NPT F
<b>T11</b> - Washing plug
<b>C05</b> - Helium Test
<b>E30</b> - Nace version MR0103 (1) - MR0175 (ISO 15156) (2)

(1) Stainless steel process connection and Monel 400 or Hastelloy C276 diaphragm. (2) Wetted parts hastelloy C276

## "HOW TO ORDER" SEQUENCE

Section/Model/Connection material/Diaphragm material/Process Connection/Instrument connection/Assembling/Options  
 4 1AS 4 4, 9, 6 41M 41F - G 1/2 F D, T B...E30  
 1A0 5 43M 1, 9, 6