

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



PED 2014/68/EU

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 full 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 applications 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.

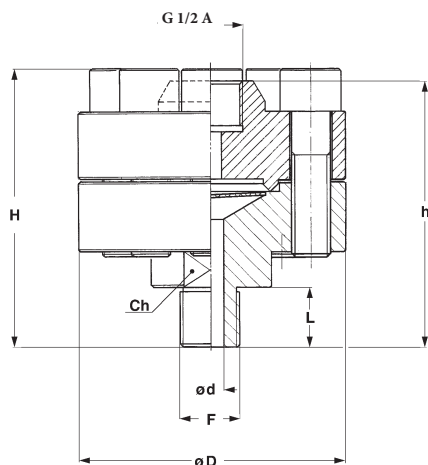
**Filling liquid:** silicon oil.

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

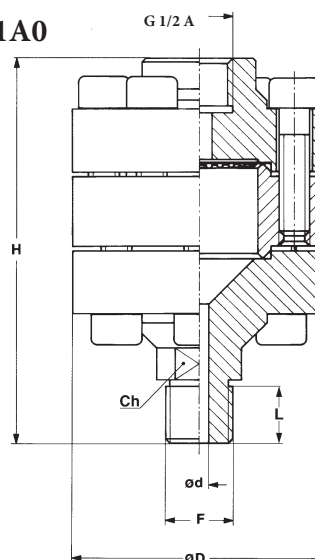
# back side diaphragm seal for high pressure, with threaded connection

# MGS9/1A

## MGS9/1AS



## MGS9/1A0



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)

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 ad fixed by an aluminium protection label. For applications with capillary: shoul diaphragm seal and instrument not be at the same level, instrument adjustment is required). (For use and installation, see data sheet "4")

<b>D</b> - Direct	<b>9</b> - Capillary AISI304 st.st., AISI304 st.st. armoured, 36.37" max (6 mt max)
<b>1</b> - Nude capillary AISI304, 36.37" max (6 mt max)	<b>6</b> - Capillary AISI316 st.st., AISI316 st.st. armoured, 36.37" max (6 mt max)

## FILLING FLUIDS and process fluid temperature

Fluid	Vacuum	Pressure	Fluid	Vacuum	Pressure
Standard silicon oil	-40...+122°F (-40...+100°C)	-40...+302°F (-40...+150°C)	<b>E</b> - Fluorinated liquid "E"	-40...+212°F (-40...+100°C)	-40...+302°F (-40...+150°C)
<b>B</b> - Silicon oil "B"	-40...+302°F (-40...+150°C)	-40...+482°F (-40...+250°C)	<b>F</b> - Silicon oil "C"	-130...+176°F (-90...+80°C)	-130...+302°F (-90...+150°C)
<b>C</b> - Silicon oil "C"	-14...+392°F (-10...+200°C)	-14...+662°F (-10...+350°C)	<b>G</b> - Mineral food oil "G"	-14...+302°F (-10...+150°C)	-14...+392°F (-10...+200°C)
<b>D</b> - Silicon oil "D"	-14...+392°F (-10...+200°C)	-14...+752°F (-10...+400°C)			

## OPTIONS

<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 B...G  
1A0 5 43M 1, 9, 6 R20...E30

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