

## "in line" diaphragm seal



Diaphragm seals are designed to isolate the sensing element of pressure gauges and pressure switches from process fluids which may be corrosive, viscous, sedimentous and/or with a high temperature. The diaphragm is welded to the upper body, to ensure separation of filling fluid from process medium. The "in-line" diaphragm position enables deep cleaning of their surfaces. Flange clamping with metallic sealing guarantees the system against leakage at high process fluid temperatures and pressures.

### 4.R00 - MGS9/R

**Working pressure:** from 0...100 to 0...3000 psi (from 0...6 to 0...250 bar).

**Process 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.

**Bolts and lock ring:** AISI 304 st.st.

**Diaphragm:** welded to process connection,

**4** - AISI 316 L st.st.,

**9** - Hastelloy C276.

**Process connection:**

**4** - AISI 316 st.st.,

**5** - AISI 316L st.st.

**Process connection, welded type:**

**7RC** - saddle, for pipe size DN 2" ...4";

**7MS** - "in line", for pipe size 1/2" ...1";

**7MT** - "in line", for pipe size 1" 1/2...4".

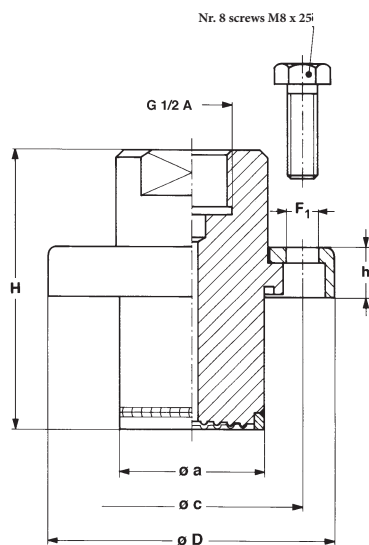
**Process connection, flanged type: (Mod. 7FL)**

- "in line", for flange size 1" 1/2 - 2" ; 150...900 RF;

- "in line", for flange size DN 40...50, PN 10...100 step seal. **Filling**

**liquid:** silicon oil.

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



h	H	a	c	D	F <sub>1</sub>
0.51" (13)	2.91" (74)	1.49" (38)	2.28" (58)	2.95" (75)	0.33" (8,5)

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 "4")

<b>D</b> - Direct	<b>9</b> - Capillary AISI304 st.st., AISI304 st.st. armoured, 36.37" max (6 mt max)
<b>I</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>C05</b> - Helium Test	<b>P04</b> - Dye penetrant test
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**"HOW TO ORDER" SEQUENCE**

Section/Model/Connection material/Diaphragm material/Process Connection/Instrument connection/Assembling/Options

4 R00 4,5 4,9 --- 41F - G 1/2 F D B...G  
1, 9, 6 C05, P04

