

back side diaphragm seals, with flanged connection

MGS9/3B



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 and pressure. An elastic diaphragm, mechanically clamped, fitted to a leak proof check, guarantees the separation of the process fluid from the transmission fill fluid.

4.3B0 - MGS9/3B

| Instrument type | Minimum range | Maximum range | Notes |
|--|---|--------------------------|-------------------------------------|
| Bourdon tube, DS 4", 6" (100...150 mm) | 0...10 psi (0...0,6 bar) | 0...580 psi (0...40 bar) | Vacuum and compound gauges included |
| Diaphragm differential pressure gauges | 0...100 InH ₂ O (0...250 mbar) | 0...360 psi (0...25 bar) | Max static pressure 60 bar |
| Diaphragm pressure switches | 0...15 psi (0...15 bar) | 0...580 psi (0...40 bar) | Vacuum and compound gauges included |
| Pressure transmitters | 0...40 InH ₂ O (0...100 mbar) | 0...580 psi (0...40 bar) | Max static pressure 60 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 304 st.st.

Diaphragm: AISI 316L st.st. (cod. **4**), Monel 400 (cod. **6**), Hastelloy C276 (cod. **9**), Tantalum (cod. **B**), Titanium (cod. **2**) and AISI 316L st.st. PTFE coated (cod. **8**)**.

Gaskets: PTFE (max. 250°C).

Threaded process connection: in AISI 316 st.st. (cod. **4**), AISI 316L st.st. (cod. **5**), AISI 316L st.st. PTFE coated (cod. **N**)**.

Dimensions : DN 15...50 and PN 6...40 EN 1092 step seal; 1/2"...2" class 150...600 RF as per ASME B16.5.

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

EN 1092 flanges finishing: type B1 (PN 2,5...40) = Ra 3,2...12,5 µm (cod. **RF7**); type B2 (PN 63...100) = Ra 0,8...3,2 µm (cod. **RF8**).

ASME flanges finishing: type RF = Ra 125...250 AARH (cod. **RF3**). **EN 1092 flanges finishing:** type B1 (PN 2,5...40) = Ra 3,2...12,5 µm (cod. **RF7**); type B2 (PN 63...100) = Ra 0,8...3,2 µm (cod. **RF8**).

ASME flanges finishing: type RF = Ra 125...250 AARH (cod. **RF3**).

Filling liquid: silicon oil.

Fixing bolts: AISI 304 st.st.

** max temperature +328°F (+150°C), with PTFE coating

ASSEMBLING

All diaphragm seals are mounted on the instruments and 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. (6 mt). (For use and installation, see data sheet "4")

| |
|---|
| D - Direct |
| T - Cooling extension |
| 1 - Nude capillary AISI304, 236" max (6 mt max) |
| 9 - Capillary AISI304 st.st., AISI304 st.st. armoured, 236" max (6 mt max) |
| 6 - Capillary AISI316 st.st., AISI316 st.st. armoured, 236" max max (6 mt max) |

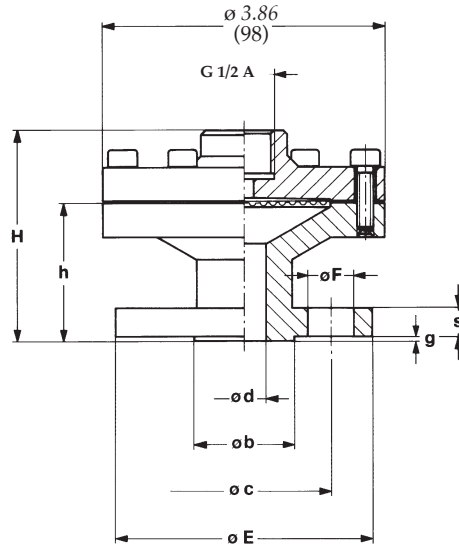
OPTIONS

| |
|--|
| B - Silicon liquid "B", process fluid temp. -4°F...+482°F (-20°C...+250°C) |
| C - Silicon liquid "C", process fluid temp. +68°F...+644°F (+20°C...+340°C) |
| E - Fluorinated liquid "E", process fluid temp. -76°F...+302°F (-60°C...+150°C) |
| C05 - Helium Test (1) |
| TS4 - Washing plug (1) |
| E30 - Nace version bMR0103 (2) - MR0175 (ISO 15156) (3) |

(1) available only on some executions: contact our Technical Department.

(2) Monel 400 or Hastelloy C diaphragm.

(3) Hastelloy C process connection and diaphragm.



EN 1092 STANDARD

dimensions : mm

| DN (1) | PN-bar | Code | h | H | E | b | d | g | c | s | F | N (2) |
|--------|--------|------|----|----|-----|-----|----|---|-----|----|----|-------|
| 15 | 6 | OOO | 46 | 71 | 80 | 40 | 15 | 2 | 55 | 10 | 11 | 4 |
| 15 | 10÷16 | OQO | 50 | 75 | 95 | 45 | 15 | 2 | 65 | 12 | 14 | 4 |
| 15 | 25÷40 | OS0 | 52 | 77 | 95 | 45 | 15 | 2 | 65 | 14 | 14 | 4 |
| 25 | 6 | QOO | 48 | 73 | 100 | 60 | 25 | 2 | 75 | 12 | 11 | 4 |
| 25 | 10÷16 | QQO | 52 | 77 | 115 | 68 | 25 | 2 | 85 | 14 | 14 | 4 |
| 25 | 25÷40 | QS0 | 54 | 79 | 115 | 68 | 25 | 2 | 85 | 16 | 14 | 4 |
| 50 | 6 | TOO | 50 | 75 | 140 | 90 | 50 | 3 | 110 | 11 | 14 | 4 |
| 50 | 10÷16 | TQO | 58 | 83 | 165 | 102 | 50 | 3 | 125 | 15 | 18 | 4 |
| 50 | 25÷40 | TS0 | 60 | 85 | 165 | 102 | 50 | 3 | 125 | 17 | 18 | 4 |

1) DN 20, 40 and over are available

2) N°holes.

ASME STANDARDS

dimensions : inches

| DN (1) | Classe | Code | h | H | E | b | d | g | c | s | F | N (2) |
|--------|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1/2" | 150 | 4AA | 1.89" | 2.87" | 3.50" | 1.37" | 0.59" | 0.06" | 2.37" | 0.39" | 0.62" | 4 |
| 1/2" | 300 | 4BA | 2.11" | 3.09" | 3.74" | 1.37" | 0.59" | 0.06" | 2.62" | 0.51" | 0.62" | 4 |
| 1/2" | 600 | 4DA | 2.35" | 3.33" | 3.74" | 1.37" | 0.59" | 0.24" | 2.62" | 0.57" | 0.62" | 4 |
| 1" | 150 | 6AA | 2.01" | 2.99" | 4.25" | 2" | 0.98" | 0.06" | 3.12" | 0.51" | 0.62" | 4 |
| 1" | 300 | 6BA | 2.36" | 3.35" | 4.88" | 2" | 0.98" | 0.06" | 3.5" | 0.62" | 0.74" | 4 |
| 1" | 600 | 6DA | 2.61" | 3.59" | 4.88" | 2" | 0.98" | 0.24" | 3.5" | 0.68" | 0.74" | 4 |
| 2" | 150 | BAA | 2.18" | 3.17" | 6" | 3.62" | 1.96" | 0.06" | 4.74" | 0.68" | 0.74" | 4 |
| 2" | 300 | BBA | 2.36" | 3.34" | 6.49" | 3.62" | 1.96" | 0.06" | 5" | 0.82" | 0.74" | 8 |
| 2" | 600 | BDA | 2.72" | 3.71" | 6.49" | 3.62" | 1.96" | 0.24" | 5" | 1" | 0.74" | 8 |

1) 3/4", 1"1/2 and over are available

2) N°holes.

"HOW TO ORDER" SEQUENCE

| Section | Model material | Connection material | Diaphragm | Process connection | Flange finishing | Instrument connection | Assembling | Options |
|---------|----------------|---------------------|--------------------|------------------------|------------------|-----------------------|-----------------|---------|
| 4 | 3B0 | 4, 5, N | 4, 6, 9 B, 2, 8 | OOO...TS0 4AA...BDA | RF3...RF8 | 41F - G 1/2 F | D, T 1, 9, 6 | B...E30 |