



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. Diaphragm faced position permit an accurate and deeper cleaning. Process sizes are ASME/UNI/DIN flanged to suit application in pharmaceutical, chemical, petrochemical, water treatment, paper and food process industries.

## 4.500 - MGS9/5

**Working pressure:** from 0...15 to 0...6000 psi (from 0...1 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.

**Diaphragm, welded to process connection:** AISI 316 L st.st, Monel 400, Hastelloy B2, Hastelloy C276.

**Flanged process connection:** AISI 316 st.s.

**Full-cover version:** wetted parts covered with Hastelloy C, Monel 400, Tantalum.

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

**Dimensions :** DN 25...100 e PN 2,5...100 EN 1092-1 step seal type B; 1"...4" class 150...2500 as per ASME B16.5 type RF.

**Finishing:** EN tipo B1 (PN 2,5...40): Ra 3,2...12,5 µm;  
EN tipo B2 (PN 63...100): Ra 0,8...3,2 µm;  
ASME tipo RF: Ra 125...250 AARH.

**Filling liquid:** silicon oil.

## 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). (For use and installation, see data sheet "4")

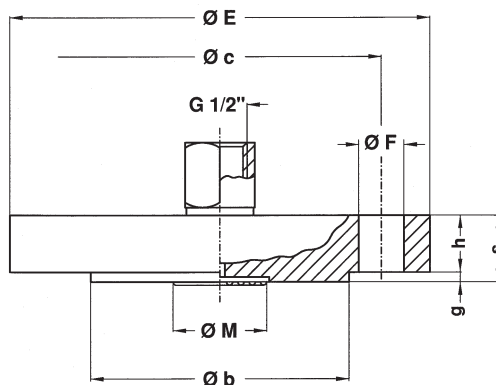
Direct	Nude capillary AISI304, 36.37" max (6 mt max)
Cooling extension (O.t. ≥ 100°C)	Capillary AISI304 st.st., AISI304 st.st. armoured, 36.37" max (6 mt max)
Adaptor G 1/2 M/F with filling screw	Capillary AISI316 st.st., AISI316 st.st. armoured, 36.37" max (6 mt max)
Adaptor G 1/2 M x 1/4 - 18 NPT F with filling screw	

## OPTIONS

Silicon liquid "C" for process fluid temperature from -20°F to +716°F (from -5°C to +380°C)	NACE MR0103/MR0175 (ISO 15156) (2)
Fluorinated liquid "E" for process fluid temperature from -76°F to +302°F (from -60°C +150°C)	Helium Test (1)
Mineral food liquid "G" for process fluid temperature -4°F to +248°F (from -20°C +120°C)	Dye penetrant test (1)

(1) Available for some excutions pls. consult our technical dep. to check their feasibility.

(2) With Monel 400 or Hastelloy C diaphragm only.



**UNI-DIN STANDARDS**

dimensions : mm

DN (1)	PN-bar (1)	E	c	b	g	h	s	N (2)	F	M	Ranges (3)
25	2,5...6	100	75	60	2	12	14	4	11	30	0...6
25	10...16/25...40	115	85	68	2	16	18	4	14	30	0...6
25	63...100	140	100	68	2	22	24	4	18	30	0...6
40	2,5...6	130	100	80	2	12	14	4	14	40	0...2,5
40	10...16/25...40	150	110	88	2	16	18	4	18	40	0...2,5
40	63...100	170	125	88	2	24	26	4	22	40	0...2,5
50	2,5...6	140	110	90	2	12	14	4	14	50	0...1
50	10...16	165	125	102	2	16	18	4	18	50	0...1
50	25...40	165	125	102	2	18	20	4	18	50	0...1
50	63	180	135	102	2	24	26	4	22	50	0...1
50	100	195	145	102	2	26	28	4	26	50	0...1
80	2,5...6	190	150	128	2	14	16	4	18	65	0...1
80	10...16	200	160	138	2	18	20	8	18	65	0...1
80	25...40	200	160	138	2	22	24	8	18	65	0...1
80	63	215	170	138	2	26	28	8	22	65	0...1
80	100	230	180	138	2	30	32	8	26	65	0...1

**ASME STANDARDS**

dimensions : inches

DN (1)	Class (1)	E	c	b	g	h	s	N (2)	F	M	Ranges (3)
1"	150	4,33"	3,13"	2"	0,08"	0,50"	0,58"	4	0,63"	1,18"	0...6
1"	300	4,92"	3,5"	2"	0,08"	0,63"	0,7"	4	0,75"	1,18"	0...6
1"	600	4,92"	3,5"	2"	0,28"	0,69"	0,96"	4	0,75"	1,18"	0...6
1"	900...1500	5,91"	4"	2"	0,28"	1,13"	1,4"	4	1"	1,18"	0...6
1" 1/2	150	4,92"	3,87"	2,87"	0,08"	0,63"	0,7"	4	0,63"	1,57"	0...2,5
1" 1/2	300	6,1"	4,5"	2,87"	0,08"	0,75"	0,83"	4	0,87"	1,57"	0...2,5
1" 1/2	600	6,1"	4,5"	2,87"	0,28"	0,88"	1,15"	4	0,87"	1,57"	0...2,5
1" 1/2	900...1500	7,09"	4,87"	2,87"	0,28"	1,25"	1,53"	4	1,12"	1,57"	0...2,5
2"	150	5,91"	4,75"	3,63"	0,08"	0,69"	0,77"	4	0,75"	1,97"	0...1
2"	300	6,5"	5"	3,63"	0,08"	0,81"	0,89"	8	0,75"	1,97"	0...1
2"	600	6,5"	5"	3,63"	0,28"	1"	1,28"	8	0,75"	1,97"	0...1
2"	900...1500	8,46"	6,5"	3,63"	0,28"	1,5"	1,78"	8	1"	1,97"	0...1
3"	150	7,48"	6"	5"	0,08"	0,88"	0,96"	4	0,75"	2,56"	0...1
3"	300	8,27"	6,63"	5"	0,08"	1,06"	1,14"	8	0,87"	2,56"	0...1
3"	600	8,27"	6,63"	5"	0,28"	1,25"	1,53"	8	0,87"	2,56"	0...1
3"	900	9,45"	7,5"	5"	0,28"	1,5"	1,78"	8	1"	2,56"	0...1
3"	1500	9,45"	8"	5"	0,28"	1,88"	2,15"	8	1,26"	2,56"	0...1

(1) Other dimensions available on request: pls. refer to Technical Service.

(3) Minimum range available in bar of DS 4...6" (DN 100...150mm) instrument.

(2) N° holes .

**"HOW TO ORDER" SEQUENCE**

Section / Model/Connection material / Diaphragm material /Process Connection / Instrument connection / Assembling / Options  
**4 500**