

“INSIDE TYPE” DIAPHRAGM SEAL, WITH FLANGED CONNECTION

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Diaphragm seals are designed to isolate the sensing element of pressure gauges, pressure switches and electronic pressure transmitters from process fluids which may be corrosive, viscous, sedimentous and/or with high temperature.

The diaphragm is welded to the upper body and leak proof tested, ensure separation of filling fluid from process medium. The diaphragm position inside the body allows precise reading whilst maintaining a big sealing surface area. Process sizes are ANSI / UNI / DIN flanged to suit application in pharmaceutical, chemical, petrochemical, water treatment, paper and food industries.

Constructive and functional characteristics:

Pressure range: -1...0/0...40 bar as per flange rating.

Working temperature: -45°C...+150°C.

Accuracy (20°C): (add to instrument accuracy) ±0,5% for direct mounting, ±1% for capillary mounting

Instrument connection: AISI 316 st.st 1/2" BSPF.

Diaphragm: AISI 316 L st. st.

Wetted parts: AISI 316 L st. st.

Flange material: AISI 316 L st. st.

Flanged process connection, AISI 316 st.st:

ANSI B16.5: ½" - ¾" - 1" - 1" ½ - 2"; 150...600 RF; finishing 125...250 AARH.

UNI: DN 15- 20 -25 -40 -50; PN 10...40 form UNI 2229 step seal; finishing Ra 12.5 µm max.

DIN: DN 15 - 20 - 25 - 40 - 50; DIN 2526 form C; finishing Rz 63 µm max.

Filling liquid: silicone oil type "A".

Capillary for remote mounting: AISI 304 st.st.

AISI 304 st.st. covered with AISI 304 st.st armour.

Special versions

High temperature version (option E10): 340° C (644°F)

Diaphragm:

Tantalum,

Hastelloy B2,

Hastelloy C276,

Titanium,

Monel 400,

Nickel,

AISI 316L st.st PTFE coated (max. temperature 150°C / 328°F).

Incoloy 825,

Incone 600

Wetted parts:

AISI 316L st.st,

AISI 304 st.st,

Hastelloy B2,

Hastelloy C276,

Tantalum

Titanium

Nickel.

Monel 400.

AISI 316 PTFE coated (Fluid temperature 150°C max.).

ASTM A182 gr. F51.



Process connection: special flange finishing or shapes, contact Technical service.

Filling fluids: Special filling fluids are available for special process conditions (see table FILLING FLUIDS)

Capillary (remote mounting):

AISI 304 st.st.

AISI 304 st.st covered with AISI 304 armour P.V.C coated.

FILLING LIQUIDS

Liquid type	Limit of process temperature
Silicone oil type "A"	-45°C .. +150°C
Silicone oil type "B"	-20°C .. +250°C
Silicone oil type "C"	+20°C .. +340°C
Fluorolube type "E"	-60°C .. +150°C
Fluorolube type "F"	-20°C .. +250°C
Food oil type "G"	-20°C .. +120°C

This publication does not try to establish the bases of a contract and the company keeps the right to modify without previous notice the design and the specifications of the instruments, in accordance with his politics of continued development.

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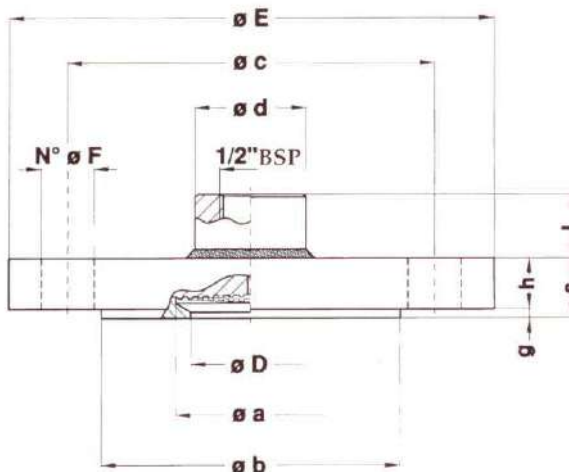
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DIMENSIONS IN mm



FLANGED CONNECTION AS PER ANSI

DN	PN-psi ⁽¹⁾	D	E	c	b	a	d	g	h	s	L	N ⁽²⁾	F	Ranges ⁽³⁾
1/2"	150	15	89	60,3	34,9	30,5	26	1,5	17	18,5	16,5	4	16	6÷10 ⁽⁴⁾
1/2"	300	15	95	66,7	34,9	30,5	26	1,5	17	18,5	16,5	4	16	6÷25
1/2"	600	15	95	66,7	34,9	30,5	26	6,5	17	23,5	16,5	4	16	6÷40
3/4"	150	20	98,5	69,8	42,9	37	28	1,5	17	18,5	16,5	4	16	2,5÷10
3/4"	300	20	117,5	82,5	42,9	37	28	1,5	17	18,5	16,5	4	19	2,5÷25
3/4"	600	20	117,5	82,5	42,9	37	28	6,5	17	23,5	16,5	4	19	2,5÷40
1"	150	25	108	79,4	50,8	37	28	1,5	18	19,5	16,5	4	16	2,5÷10
1"	300	25	124	88,9	50,8	51	38	1,5	18	19,5	24,5	4	19	1÷25
1"	600	25	124	88,9	50,8	51	38	6,5	18	24,5	24,5	4	19	1÷40
1 1/2"	150	40	127	98,4	73	51	38	1,5	18	19,5	24,5	4	16	1÷10
1 1/2"	300	40	155,5	114,3	73	51	38	1,5	20,5	22	22	4	22	1÷25
1 1/2"	600	40	155,5	114,3	73	51	38	6,5	22,5	29	15	4	22	1÷40
2"	150	50	152,5	120,6	92,1	51	38	1,5	19	20,5	23,5	4	19	1÷10
2"	300	50	165	127	92,1	51	38	1,5	22,5	24	20	8	19	1÷25
2"	600	50	165	127	92,1	51	38	6,5	25,5	32	12	8	19	1÷40

1. Suitable for 150% of flange rating at 20...30°C and 100% of flange rating at 340°.
2. N° of holes.
3. Bar ranges, for instruments with dial size ≤ 100.
4. Not available, when PTFE coated.

FLANGED CONNECTION AS PER UNI-DIN

DN	PN-bar ⁽¹⁾	D	E	c	b	a	d	g	h	s	L	N ⁽²⁾	F	Ranges ⁽³⁾
15	10 .. 40	15	95	65	45	37	28	2	17	19	16,5	4	14	2,5..40
20	10 .. 40	20	105	75	58	37	28	2	17	19	16,5	4	14	2,5..40
25	10 .. 40	25	115	85	68	51	38	2	17	19	24,5	4	14	1..40
40	10 .. 40	40	150	110	88	51	38	3	16	19	24,5	4	18	1..40
50	10 .. 40	50	165	125	102	51	38	3	17	20	23,5	4	18	1..40

1. Suitable for 150% of flange rating at 20...30°C and 100% of flange rating at 350°C.
2. N° of holes.
3. Bar ranges, for instruments with dial size ≤ 100.

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