

"In line" Diaphragm Seal with flanged connection

04.400



Diaphragm seals are designed to isolate the sensing element of pressure gauges, pressure switches and electronic pressure transmitters from process liquids which may be corrosive, viscous, sedimentous and / or with a high temperature. The diaphragm welded to the upper body and leak proof tested, ensure separation of filling fluid from process medium. Diaphragm faced position permit an accurate and deeper cleaning. Process sizes are ANSI/UNI/DIN flanged to suit application in pharmaceutical, chemical, petrochemical, water treatment, paper and food process industries.

Functional and constructive characteristics.

Ranges: 0...1 / 0...40 bar as per flange rating.

Process temperature: -45...+150-C.

Accuracy*: (add to instrument accuracy) $\pm 0,5\%$ for direct mounting;
 $\pm 1\%$ for capillary mounting.

Instrument connection: AISI316 st.st. 1/2" BSPF.

Diaphragm: AISI316L st.st.

Wetted parts: AISI316 st.st.

Flange material: AISI316 st.st.

Flanged process connection, AISI 316 st.st.:

ANSI B16.5: 1/2"-3/4"-1"-1 1/2-2"; 150 \Rightarrow 600 RF; finishing 125 \Rightarrow 250 AARH;

UNI: DN15-20-25-40-50; PN10 \Rightarrow 40 form UNI2229 step seal; finishing Ra 12,5 μm max;

DIN: DN15-20-25-40-50; PN10 \Rightarrow 40 DIN2526 form C; finishing Rz 63 μm max.

Filling liquid: silicone oil type "A".

Capillary for remote mounting (max length 6 mt.):

- AISI304 st.st.;

- AISI304 st.st. covered with AISI304 st.st armour.

Special versions

High temperature version: max. 340-C (option E10).

Diaphragm: Hastelloy B2, Hastelloy C276, Tantalum, Titanium, Nickel, Monel 400, AISI316 L st.st. PTFE coated (1), Incoloy 825, Inconel 600.

Wetted parts: AISI316L, Hastelloy B2, Hastelloy C276, Tantalum, Titanium, Nickel, Monel 400, AISI316 PTFE coated (1), ASTM A182 gr. F51.

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

Filling liquids: special filling liquids available for special process conditions (see table FILLING LIQUIDS).

Capillary for remote mounting (max length 6 mt.):

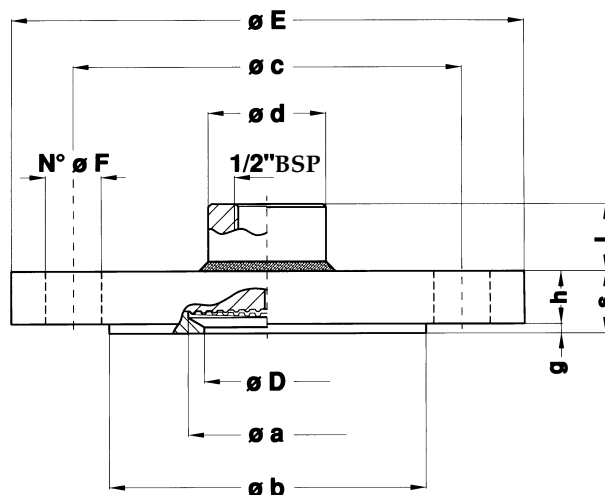
- AISI316 st.st.;

- AISI304 st.st. covered with AISI304 st.st armour PVC coated.

*at 20-C process temperature.

(1) max. temperature 150°C / 328°F, with PTFE coating.

DIAPHRAGM SEAL TYPE 400: DIMENSION



FLANGED CONNECTION AS PER ANSI: DIMENSIONS

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

(2) N° holes.

(3) bar ranges, for instruments with dial size 100.

(4) not available, when PTFE coated.

FLANGED CONNECTION AS PER UNI - DIN : DIMENSIONS

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

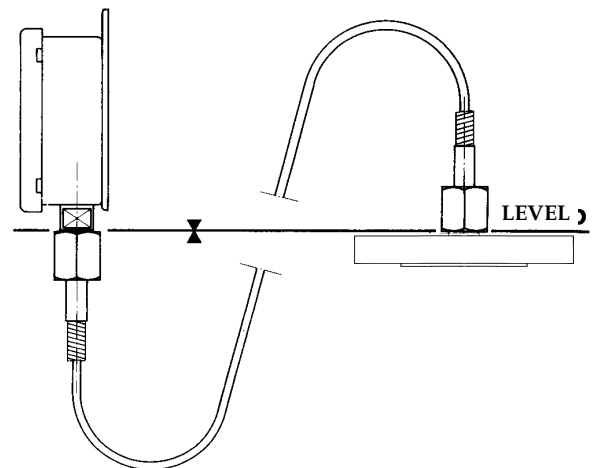
DIAPHRAGM SEAL TYPE 400: REMOTE MOUNTING

CAPILLARY TYPE -max.length6mt.

CAPILLARY TYPE	CODE
AISI304st.st.	1
AISI316st.st.covered withAISI304st.st.armour	4
AISI316st.st.covered withAISI304st.st.armour,PVCcoated	5
AISI304st.st.covered withAISI304st.st.armour	9

N.B.

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 a same level, instrument zeroing on installation is required.



HOW TO ORDER

04	04 - Diaphragm seals
400	400 - "in-line" diaphragm seal, flanged connection
	Process connection material 4-AISI316st.st. 5-AISI316Lst.st. 1 - HASTELLOYB2 9 - HASTELLOYC276
5	B- TANTALUM 2 - TITANIUM 7- NICKEL 6- MONEL 400 N-AISI316st.st.PTFEcoated S-ASTMA182gr.F51
	Diaphragm material 4-AISI316Lst.st. 8-AISI316Lst.st.PTFEcoated 1 - HASTELLOYB2 9 - HASTELLOYC276
9	B - TANTALUM 2- TITANIUM 7- NICKEL 6- MONEL 400 I- INCOLOY 825 J- INCONEL 600
BAA	Process connection see flanged connection table to code
41F	Instruments connection 41F - 1/2" BSPF
9	Capillary type (see table)
1000	Capillary length (mm)
RF1	RF1 - flangeshape and finishing as per UNI2229 Ra 12,5µm max; as per DIN 2526 form C, Rz 63µm. RF3 - flangeshape and finishing as per ANSIRF 125...250 AARH
C05	See options table

OPTIONS

DESCRIPTION	Code
Helium Test (1)	C05
High temperature version 340 °C (2)	E10
Dye penetrant test (1)	P04
"Fluorolube" filling	R15
st.st. adaptor 1/2" BSP M x 1/2" BSP F	R20
st.st. adaptor 1/2" BSP M x 1/4" NPT M	R21

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

(2) Not available with PTFE coating.

FILLING LIQUIDS

Liquid type	Limit of process temperature
Silicone oil type "A"	-45... +150 °C
Silicone oil type "B"	-20... +250 °C
Silicone oil type "C"	+20... +340 °C
"Fluorolube"	-60... +150 °C
Food oil	-20... +200 °C

