

diaphragm seal with threaded connection

Type 04.1B0 - 04.1BS

04.1B0-1BS



Diaphragm seals are designed to isolate the sensing element of pressure gauges, pressure switches and electronic pressure transmitter from process fluids which may be corrosive, viscous, sedimentous and/or with a high temperature. The diaphragm, welded for model 1B0 and mechanically clamped between the upper housing and intermediate ring for model 1BS, is leak proof tested to guarantee fill fluid separation from process fluid. This diaphragm seal can be cleaned by removing the lower housing. This construction feature and its compact design suits to many applications requiring frequent maintenance.

1B0 - without intermediate ring, with TIG welded diaphragm

Range: -1...0 / 0...40 bar.

Process temperature: -45°C...+150°C.

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

Instrument connection: AISI 316L st.st. 1/2" BSP F.

Diaphragm material:

- AISI 316L st.st.,
- Monel 400,
- Hastelloy C 276,
- Hastelloy B 2,
- Tantalum,
- Nickel.

Gaskets: PTFE up to 250°C; Buna S over 250 °C.

Process connection:

- AISI 316 st.st.
- AISI 316L st.st.
- AISI 316L st.st. PTFE coated (2)
- Monel 400,
- Hastelloy C 276,
- Hastelloy B 2,
- Nickel 201,
- Carbon steel.

Clamp nuts and bolts: AISI 304 st.st.

Filling liquids: see "FILLING LIQUIDS" table

Capillary (remote mounting): see "CAPILLARY TYPES" table

(1) at 20°C process temperature (or state temperature when ordering)

(2) Max temperature 150°C, with PTFE coating - 1/2" BSPM only

1BS - with intermediate ring

Range: -1...0 / 0...40 bar.

Process temperature: -45°C...+150°C.

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

Instrument connection: AISI 316L st.st. 1/2" BSP F.

Diaphragm material:

- AISI 316L st.st. PTFE coated,(2)
- Hastelloy C276 PTFE coated,(2)
- Tantalum PTFE coated,(2)
- Titanium.

Gaskets: PTFE up to 250°C; Buna S over 250 °C.

Process connection and intermediate ring:

- AISI 316 st.st.,
- AISI 316L st.st.,
- AISI 316L st.st.PTFE coated,(2)
- Titanium.

Clamp bolts: AISI 304 st.st.

Filling liquids: see "FILLING LIQUIDS" table

Capillary (remote mounting): see "CAPILLARY TYPES" table

FILLING LIQUIDS

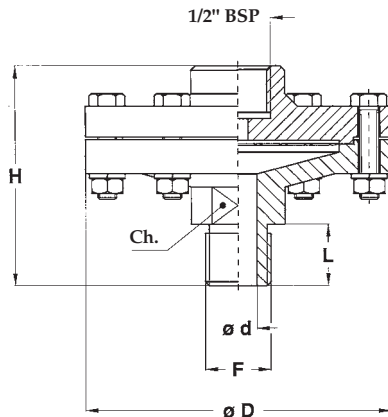
Liquid type	Limit of process temperature
Silicone oil type "A"	-45...+150 °C
Silicone oil type "B"	-20...+250 °C
Silicone oil type "C"	+20...+340 °C
"Fluorolube" type "E"	-60...+150 °C
"Fluorolube" type "F"	-20...+250 °C
Oil for food industry type "G"	-20...+120 °C

diaphragm seal

with threaded connection 04.1B0 - 04.1BS

04.1B0-1BS

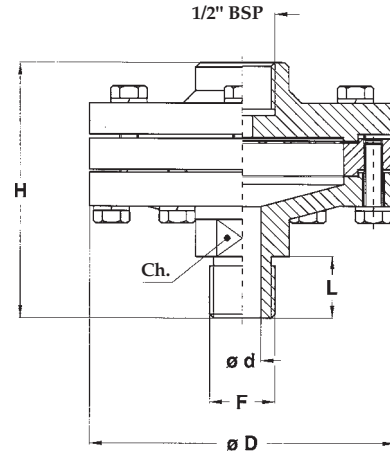
TYPES, DIMENSIONS AND WEIGHTS



04.1B0

F	D	d	ch	H	L	Weight
1/2" BSP M	98	12	25	71	20	1,300
1/2" NPT M	98	12	25	71	20	1,300

(dimensions : mm.)



04.1BS

F	D	d	ch	H	L	Weight
1/2" BSP M	98	12	25	84,5	20	1,780
1/2" NPT M *	98	12	25	84,5	20	1,780

(dimensions : mm.)

* Not available with PTFE coated bottom housing.

HOW TO ORDER

04	04	Diaphragm seals
1B0	1B0	Without intermediate ring, welded diaphragm
	1BS	With intermediate ring
		Process connection material
	4	AISI 316 st.st.
	5	AISI 316L st.st.
	6	MONEL 400
9	1	HASTELLOY B2
	9	HASTELLOY C276
	7	NICKEL
	P	TITANIUM
	N	AISI 316 st.st. PTFE coated
	3	Aq
		Diaphragm material
	4	AISI 316 L st.st.
	6	MONEL 400
	9	HASTELLOY C276
9	1	HASTELLOY B2
	B	TANTALUM
	7	NICKEL
	8	AISI 316 L st.st. PTFE coated
	E	HASTELLOY C 276 PTFE coated
	C	TANTALUM PTFE coated
	2	TITANIUM
43M	41M	1/2" BSP M
	43M	1/2" NPT M *
41F	41F	1/2" BSP F
1000	1000	Capillary length (mm.)
R15	R15	See "OPTIONS" table

* Not available with PTFE coated bottom housing.

OPTIONS

Description	Code
Helium Test	C05
High temperature version - max 340°C (1)	E10
NACE MR 01.75 version (2)	E30
"Fluorolube" type "E" filling	R15
Oil for food industry type "G" filling	R16
"Fluorolube" type "F" filling	R18
St. St. filling adapter 1/2" BSP M x 1/2" BSP F	R20
St. St. filling adapter 1/2" BSP M x 1/4" NPT M	R21
Without AISI 316L st.st. bottom housing	S10
Without instrument, alone	S20
Bottom housing with flushing connection 1/8" NPT AISI 316	T11

(1) Buna S gaskets and silicone oil type "C".

(2) Monel 400 diaphragm only.

(3) Intermediate ring with flushing conn. 1/4" NPT, contact our Technical Department.

CAPILLARY TYPE - max. length 6 mt.

CAPILLARY TYPE	CODE
AISI 304 st. st.	1
AISI 316 st. st. covered with AISI 304 st. st. armor	4
AISI 304 st. st. covered with AISI 304 st. st. armor, PVC coated	5
AISI 304 st. st. covered with AISI 304 st. st. armor	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 on installation is required. (For use and installation, see data sheet "04").



DRUCK & TEMPERATUR Leitenberger GmbH
 Postfach 64 • D-72136 Kirchentellinsfurt • Germany
 Tel.: 0 71 21 - 9 09 20 - 0 • Fax: 0 71 21 - 9 09 20 - 99
 E-Mail: dt-info@leitenberger.de
 INTERNET-Site: http://www.leitenberger.de