

back side diaphragm seal  
for high pressure,  
with threaded connection  
Type 04.1AS - 04.1A0

# 04.1AS-1A0



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 is mechanically clamped between the upper housing and intermediate ring and is leak proof tested to guarantee fill fluid separation from process fluid. Model 1A0 is cleaned by removing the lower housing from the intermediate ring. Both models are without sealing gaskets. This construction feature and its compact design suits many application that require frequent maintenance.

## 04.1AS

### Functional and constructive characteristics

**Ranges:** 0/400...0/600 bar.

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

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

**Instrument connection:** AISI 304 st. st. 1/2" BSPF.

**Diaphragm:** AISI 316L st.st., metallic seal.

**Process connection:** AISI 316 st.st. 1/2" NPTM ANSI B1.20.1 or 1/2" BSPM.

**Filling liquid:** silicone oil type "A".

**Clamp bolts:** zinc plated high tensile carbon steel.

**Capillary (remote mounting):** AISI 304 st.st.  $\varnothing 3 \times 1$  or AISI 304 st.st. covered with AISI 304 st. st. armour  $\varnothing 6$  (max. length 6 mt.).

### Special Versions

**Diaphragm:** Hastelloy C276, Monel 400.

**Process connection material:** AISI 316 L st.st.

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

**Capillary (remote mounting):** AISI 316 st.st. covered with AISI 304 st. st. armour  $\varnothing 6$ ; AISI 304 st.st. covered with AISI 304 st. st. armour  $\varnothing 6$ , PVC coated.

## 04.1A0

### Functional and constructive characteristics

**Ranges:** 0/60...0/400 bar.

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

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

**Instrument connection:** AISI 304 st. st. 1/2" BSPF.

**Diaphragm:** AISI 316L st.st., metallic seal.

**Process connection:** AISI 316 st.st. 1/2" NPTM ANSI B1.20.1 or 1/2" BSPM.

**Filling liquid:** silicone oil type "A".

**Intermediate ring:** AISI 316 st.st.

**Clamp bolts:** AISI 304 st.st.

**Capillary (remote mounting):** AISI 304 st.st.  $\varnothing 3 \times 1$  or AISI 304 st.st. covered with AISI 304 st. st. armour  $\varnothing 6$  (max. length 6 mt.).

### Special Versions

**High temperature version:** (option E10) with BUNA S gasket and silicone oil type "C".

**Diaphragm:** Hastelloy C276, Monel 400.

**Process connection material:** AISI 316 L st.st., Monel 400, Hastelloy C276.

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

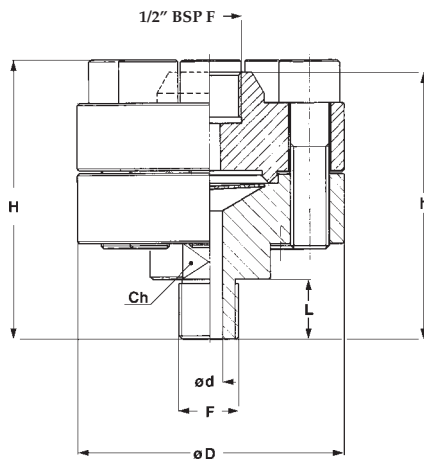
**Capillary (remote mounting):** AISI 316 st.st. covered with AISI 304 st. st. armour  $\varnothing 6$ ; AISI 304 st.st. covered with AISI 304 st. st. armour  $\varnothing 6$ , PVC coated.

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

back side diaphragm seal  
for high pressure, with threaded connection  
04.1AS - 04.1A0

04.1AS-1A0

## MODEL 04.1AS: DIMENSIONS (mm)



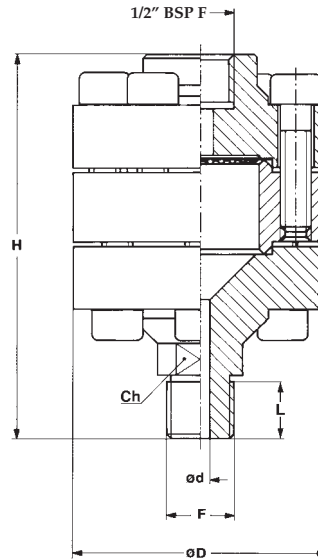
F	Code	d	H	h	L	D	Ch
1/2" BSP M	41M	7	93	89	20	89	36
1/2" NPT M	43M	7	93	89	20	89	36

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

## HOW TO ORDER

	DESCRIPTION & CODE
04	04 - diaphragm seals
1A0	1A0 - PN 400 bar 1AS - PN 600 bar
5	Process connection material 4 - AISI 316 st.st. 5 - AISI 316 L st.st. 6 - MONEL 400
6	Diaphragm material 4 - AISI 316 L st.st. 6 - MONEL 400 9 - HASTELLOY C 276
41M	Process connection 41M - 1/2" BSP M 43M - 1/2" NPT M
41F	Instrument connection 41F - 1/2" BSP F
0	Capillary type 0 - without capillary
1000	capillary length (mm.)
R15	see options table

## MODEL 04.1A0: DIMENSIONS (mm)



F	Code	d	H	L	D	Ch
1/2" BSP M	41M	6	121,5	20	80	22
1/2" NPT M	43M	6	121,5	20	80	22

## REMOTE MOUNTING

CAPILLARY TYPE - max length 6 mt.	CODE
AISI 304 st.st.	1
AISI 316 st.st. covered with AISI 304 st.st. armour	4
AISI 316 st.st. covered with AISI 304 st.st. armour, PVC coated	5
AISI 304 st.st. covered with AISI 304 st.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 on installation is required. (For use and installation, see data sheet "04").

## OPTIONS

Description	Code
Helium Test	C05
High temperature version 340°C (1)	E10
NACE MR 01.75 version	E30
"Fluorolube" filling	R15
AISI adaptor 1/2" BSP M x 1/2" BSP F	R20
AISI adaptor 1/2" BSP M x 1/4" NPT M	R21
Without instrument, alone (2)	S20

(1) Model 04.1A0 only.

(2) To be ordered with options R20 or R21.



**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