

Diaphragm-Type Diaphragm Seals

Type L990.26

WIKA Datasheet L990.26

Applications

Process industry diaphragm seal to combine with pressure transmitters and Bourdon tube pressure gauges. Intended for corrosive, contaminated, hot or viscous pressure media.

Standard Features

Design

Flange with integral diaphragm, which requires hydraulic fluid to transmit pressure to instrument.

Process Connection

½" to 1" per ASME/ANSI B16.5 (Diaphragm recessed)

Instrument Connection

Capillary, ¼" or ½" NPT-female

Suitable Pressure Ranges

200 in H₂O to class 300, depending on flange and diaphragm size and process conditions

Available Options (connections, materials, etc.)

See Selection Guide (over)

Volumetric Data

Displacement typically for 1.3" SS diaphragm

$\Delta V = 0.51 \text{ cm}^3$ [0.0311 in³]

Total cavity volume max $V_0 = 0.7 \text{ cm}^3$ [0.0427 in³]

Displacement typically for 1.6" SS diaphragm

$\Delta V = 0.83 \text{ cm}^3$ [0.0506 in³]

Total cavity volume max $V_0 = 1.3 \text{ cm}^3$ [0.0793 in³]

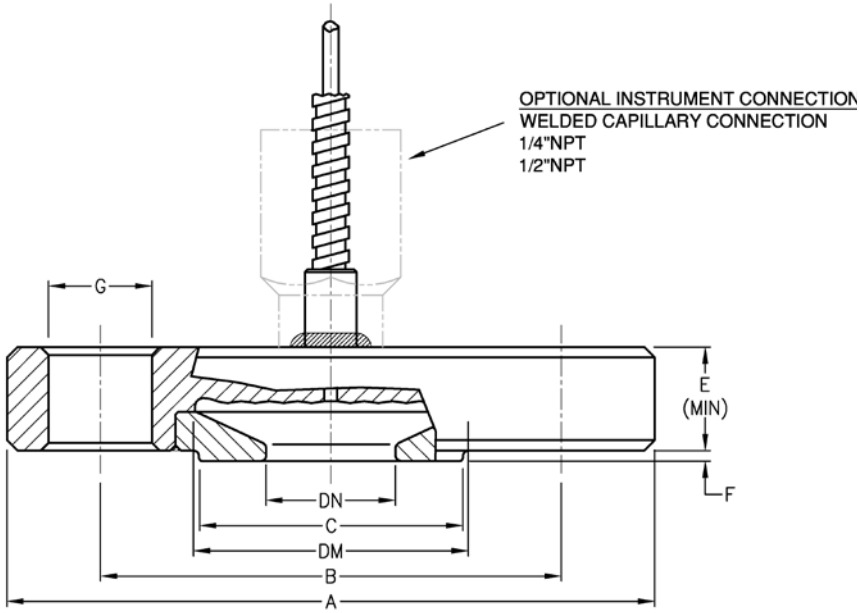
Displacement typically for 2.1" SS diaphragm

$\Delta V = 1.37 \text{ cm}^3$ [0.0836 in³]

Total cavity volume max $V_0 = 2.4 \text{ cm}^3$ [0.1464 in³]



Flange-Type Diaphragm Seal, Type L990.26



X = Number of Bolt Holes
 DN = Nominal Pipe Size
 DM = Effective Diaphragm Diameter
 CLASS = Flange Rating Per ASME B16.5
 All Dimensions in inches unless otherwise noted

| SIZE | CLASS | A | B | C | DM | E | F | G | X | WEIGHT |
|------|-------|------|------|------|-----|------|------|------|---|--------|
| DN | | | | | | | | | | lbs |
| 1/2" | 150 | 3.50 | 2.38 | 1.38 | 1.3 | 0.85 | 0.06 | 0.62 | 4 | 2.2 |
| | 300 | 3.75 | 2.62 | 1.38 | 1.6 | 0.85 | 0.06 | 0.62 | 4 | 2.2 |
| 3/4" | 150 | 3.88 | 2.75 | 1.69 | 1.6 | 0.85 | 0.06 | 0.62 | 4 | 2.4 |
| | 300 | 4.62 | 3.25 | 1.69 | 1.6 | 0.85 | 0.06 | 0.62 | 4 | 3.5 |
| 1" | 150 | 4.25 | 3.12 | 2.00 | 2.1 | 0.85 | 0.06 | 0.62 | 4 | 3.1 |
| | 300 | 4.88 | 3.50 | 2.00 | 2.1 | 0.85 | 0.06 | 0.62 | 4 | 3.7 |

DWG.#2396102-5

To determine the effects of temperature and response time in a specific application, contact the factory for an **Application Questionnaire**. The information provided will allow WIKA Technical Support to accurately model your application parameters using state-of-the-art computer simulation techniques.

L990.26 Selection Guide

| Field no. | Code | Description-One Piece, Recessed Welded Seal, Flanged | Field no. | Code | Description-One Piece, Recessed Welded Seal, Flanged |
|-----------|---|--|---------------------------------|--|--|
| 1 | Instrument Connection | | Material of Wetted Parts | | |
| | N4F | 1/2" NPT female - (see note 6) | SS | Stainless steel 316L (1.4435) | |
| | N2F | 1/4" NPT female - (see note 6) | HB | Hastelloy B2 (2.4617) | |
| | CPL | Capillary (Axial weld-in) connection - (see note 1) | HC | Hastelloy C276 (2.4819) | |
| 2 | Process Connection (according to ASME B16.5) | | MO | Monel 400 (2.4360) | |
| | 50 | 1/2" flange | IN | Inconel 600 (2.4816) | |
| | 75 | 3/4" flange | IC | Incoloy 825 (2.4858) | |
| | 10 | 1" flange | TA | Tantalum lined - (see note 2) | |
| 3 | Flange Rating | | NI | Nickel 200 (2.4066) | |
| | -150 | 150# | TI | Titanium Grade 2 (3.7035) - (see note 3) | |
| | -300 | 300# | CA | Carpenter 20 (2.4660) | |
| | -600 | 600# | TF | Stainless steel with black foil PTFE - (see note 2) | |
| 4 | Flange Faces | | DP | Duplex 2205 (1.4462) | |
| | R | RF = Raised Face (125-250 RMS) | S4 | Stainless steel 304L (1.4304) | |
| | S | RFSF = Raised Face Smooth Finish | Options (see note 4) | | |
| | | | XMT | Material Certificate 3.1 EN10204 (metal only) | |
| | | | XNC | Wetted parts NACE (MR0175/MR0103 Year 2009) compliant | |
| | | | CE4 | 4" Cooling element - (see note 1, 5) | |
| | | | CE8 | 8" Cooling element - (see note 1, 5) | |

Notes:

- 1) Axial weld-in connections and cooling elements are only available on 316L stainless steel flange housings.
- 2) These lower housing materials are only offered in smooth finish facings (RFSF) and are not offered with flushing ports.
- 3) All titanium design, only threaded instrument connections available.
- 4) List options in alphabetical order at the end of the configuration code.
- 5) Cooling elements are welded to the diaphragm seal.
- 6) Threaded instrument connections on this model come with M6 fill ports as standard.

Order Sample

| | | | | | | | |
|------------------|--------------|------------------------------|---------------------------|----------------------|---------------------|---------------------------------|----------------|
| | <i>MODEL</i> | <i>INSTRUMENT CONNECTION</i> | <i>PROCESS CONNECTION</i> | <i>FLANGE RATING</i> | <i>FLANGE FACES</i> | <i>MATERIAL OF WETTED PARTS</i> | <i>OPTIONS</i> |
| L990.26 | N4FX | 10 | -150 | R | SS | | |
| Field no. | 1 | 2 | 3 | 4 | 5 | 6 | |

Ordering information

Pressure gauge model / Nominal size / Scale range / Size of connection / Optional extras required.
 Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.
 Modifications may take place and materials specified may be replaced by others without prior notice.



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