



Diaphragm-Type Diaphragm Seals

Standard Welded Diaphragm Flanged Seal

Type L990.12

Diaphragm Seals

Application

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

Design

Internal welded diaphragm with threaded process connection; requires hydraulic fluid to transmit pressure to instrument

Process Connection

1/2" to 1 1/2" per ASME B16.5

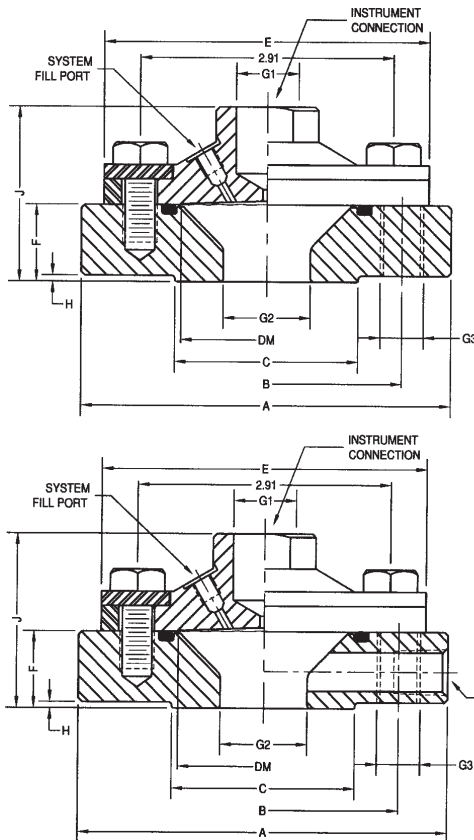
Instrument Connection

Capillary, 1/4" or 1/2" NPT-female

Suitable Pressure Ranges

15 psi to Class 1500

Available Options (connections, materials, flushing ports, etc.)
See Selection Guide (over)



DM: EFFECTIVE DIAPHRAGM DIAMETER
G1: INSTRUMENT CONNECTION
G2: PROCESS CONNECTION
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED

| G1 | G2 | G3 | A | B | C | DM | E | F | H | J | WEIGHT lbs |
|----------------------------|-----------|--------------|------|------|------|-----|------|------|------|------|---------------|
| 1/4" NPT OR 1/2" NPT | 1/2" 150# | 4x1/2"-13UNC | 3.50 | 2.38 | 1.38 | 2.1 | 3.74 | 1.10 | 0.06 | 2.20 | 4.3 |
| | 1/2" 300# | 4x1/2"-13UNC | 3.75 | 2.62 | | | | 1.10 | 0.06 | 2.20 | 4.3 |
| | 1/2" 600# | 4x1/2"-13UNC | 3.75 | 2.62 | | | | 1.26 | 0.25 | 2.36 | 4.4 |
| | 1" 150# | 4x1/2"-13UNC | 4.25 | 3.12 | 0.87 | | | 0.06 | 1.97 | 4.4 | |
| | 1" 300# | 4x5/8"-11UNC | 4.88 | 3.50 | 0.87 | | | 0.06 | 1.97 | 8.5 | |
| | 1" 600# | 4x5/8"-11UNC | 4.88 | 3.50 | 1.26 | | | 0.25 | 2.36 | 8.5 | |
| | 2" 150# | 4x5/8"-11UNC | 6.00 | 4.75 | 0.87 | | | 0.06 | 1.97 | 6.1 | |
| | 2" 300# | 6x0.75 | 6.50 | 5.00 | 0.89 | | | 0.06 | 1.99 | 8.5 | |
| | 2" 600# | 6x0.75 | 6.50 | 5.00 | 3.62 | | | 1.28 | 0.25 | 2.38 | 10.0 |

DWG.#2211696-5

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.

ACS L990.12
(ACS 99.01F)

Selection Guide - L990.12

990.12,1/4X1.0-150R,CS,CS-0,CS,SS,VI

Gasket Material (See note 9)

VI = Viton®
BN = Buna "N"
TF = Teflon®, virgin
AS = Stainless steel, silver-plated
NA = None (See note 8)

Diaphragm Material

SS = 316 stainless steel
MO = Monel® 400
HB = Hastelloy® B-2
HC = Hastelloy® C-276
PF = 316 stainless steel, Teflon® coated
TF = 316 stainless steel, virgin Teflon® lined
TA = Tantalum
TI = Titanium, grade 2 (See note 7)
NI = Nickel 200
IN = Inconel® 600
IC = Incoloy® 825
CA = Carpenter® 20
SA = 316 SS, gold-plated
VI = Viton® (See note 6)

Clamp & Support Material (Including bolts)

CS = Carbon Steel, zinc-plated
SS = Stainless steel
HS = High temperature stainless steel (See note 5)
NA = None (See note 4)

Flushing Connection (See note 3)

0 = None
1 = 1/8" NPT female
2 = 1/4" NPT female

Lower Housing Material

CS = Carbon steel, nickel-plated
SS = 316 stainless steel
MO = Monel® 400
HB = Hastelloy® B-2
HC = Hastelloy® C-276
CC = Carbon steel, nickel-plated Teflon® lined, carbon
CW = Carbon steel, nickel-plated Teflon® lined, virgin
SC = 316 stainless steel, Teflon® lined, carbon
SW = 316 stainless steel, Teflon® lined, white
TC = Carbon steel, nickel-plated, Teflon® coated
TS = 316 stainless steel, Teflon® coated
TA = Tantalum
TI = Titanium, grade 2
NI = Nickel 200
IN = Inconel® 600
IC = Incoloy® 825
CA = Carpenter® 20

Upper Housing Material

CS = Carbon steel, nickel-plated
SS = 316 stainless steel
TI = Titanium, grade 2

Flange Rating (Other facings available)

150R = 150#RF
300R = 300#RF
600R = 600#RF
15XR = 900#/1500#RF
XXXX = Other (Define flange connection on purchase order)

Process Connection (per ASME B16.5)

1.0 = 1" Pipe
1/2 = 1/2" Pipe
3/4 = 3/4" Pipe
1.5 = 1.5" Pipe
2.0 = 2" Pipe

Instrument Connection

1/4 = 1/4" NPT female
1/2 = 1/2" NPT female
CPL = Capillary connection (To weld capillary directly to seal, see note 2)

Diaphragm Seal Design
L990.12 = Welded Diaphragm (See note 1)

Notes

1. Includes previous type 990.12.602.
2. Capillary connection requires a stainless steel upper housing.
3. Available with solid lower housing only.
4. For all welded design 990.12.620 only.
5. Bolts only. Clamp ring, support ring are 316 stainless steel. Requires silver-plated stainless steel gasket.
6. Viton® diaphragm is available for clamped design only.
7. For titanium diaphragm welded to upper housing, a titanium upper housing is required.
8. For Teflon® lower housing and all welded design (990.12.620) only. All other lower housings require gaskets.
9. Standard material for stainless steel and carbon steel wetted parts is Viton® (400°F max.). Teflon® is standard for all other wetted parts (500°F max.). Silver-plated stainless steel gasket is used for high temperature applications (752°F max.).

Items in bold are available from stock (subject to prior sales). For optional items, consult factory for current lead-time.

Options not listed may be available, please consult factory.
Fill Fluid & Mounting options: Please reference data sheet ACS 99.MO

Ordering Information:

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice

03/07



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