Model 100N

Diaphragm Seals for Flanged In-Line Process Connections Standard Pressure Rating with Metal Lower Housings Complete with Clean-out Option

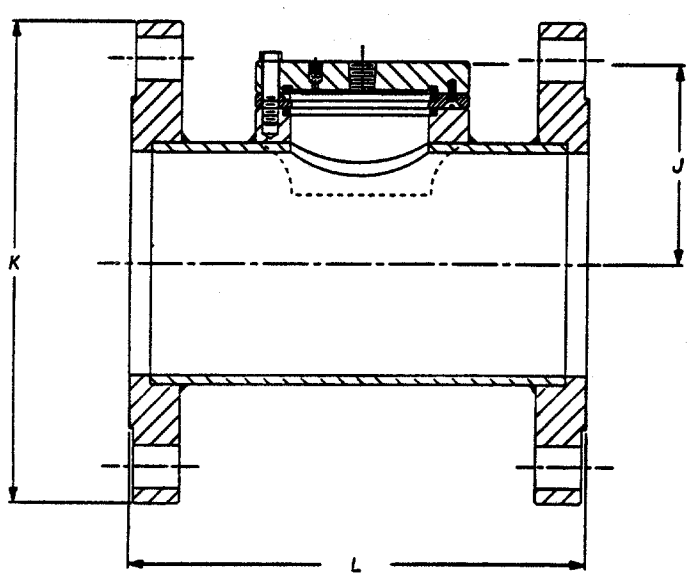
Process Connection Sizes
1" through 3"
All Pipe Schedules and Flange Sizes per ASME/ANSI B36.10 or B36.19 and B16.5

Pressure Ratings
Conforms to Pipe Schedule and Flange Ratings as calculated by ASME B31.1 Equation "4" or per ASME/ANSI B16.5 flange ratings @ 100°F (38°C) - whichever is lower (See Notes 3, 4, 5 and 8)

Dimensional Data
Process Connection Size

	1"-150#	2"-150#	3"-150#
J	2.12 (54)	3.00 (76)	3.75 (95)
K	4.25 (108)	6.00 (152)	7.50 (191)
L(9)	7.00 (178)	9.00 (229)	11.00 (279)

( ) Dimensions in millimeters



Standard Features and Options
This flanged in-line seal has a replaceable diaphragm clamped between o-rings. The 100N Series Seals utilize a diaphragm that is field replaceable. This configuration allows for the use of metal as well as elastomer diaphragm materials. Recommended for applications that require a continuous flow of process across the diaphragm to insure that pressure sensing is not inhibited by solids buildup. The 100N Series Seals utilize a "Clean-out" feature which is a separate diaphragm clamping ring that permits removal of the lower housing for inspection, or cleaning of the diaphragm without loss of fill fluid. The displacement capability of this series of diaphragm seal is 0.09 cubic inches. The Seal-off feature is optional.

Offerings
Lower Materials: All metallic
Upper Materials: Carbon Steel or 316 Stainless Steel
Diaphragm Materials: All metallic and elastomers
O-Rings: Buna-N, Teflon, Viton
Bolting: Carbon Steel or 300 Series Stainless Steel (See Notes 3, 4, 5 and 8)

CONTROL ENGINEERING DATA

CATALOG NUMBERS AS RECEIVED FOR THE 100N SERIES MUST CONTAIN FIFTEEN (15) CHARACTERS

A9CS 6 M 1 BNB C 0 C 0 N

(15) FILL LIQUID
N = (Standard)

(14) TEFLON COATINGS (See Note 10)
0 = None (Standard)
A = Teflon Coated Diaphragm Only

(13) BOLTING
C = Carbon Steel Grade 5 (See Note 3)
S = 300 Series Stainless Steel (See Note 4)
H = 300 Series Stainless Steel (Hi-Strength) (See Note 5)

(12) FUTURE OPTIONS
0 = Not Applicable

(11) UPPER HOUSING MATERIAL
C = Carbon Steel (Standard)
S = 316 Stainless Steel

(10) O-RING MATERIAL
B = Buna "N" (Standard)
T = Teflon-Virgin (See Note 2)
V = Viton

(8-9) SEAL DIAPHRAGM MATERIAL
BN = Buna "N"
C2 = Carpenter 20 CB-3
HB = Hastelloy B3
HC = Hastelloy C-276
I6 = Inconel 600
KF = Kel-F
M5 = Monel 400
N2 = Nickel 200
SL = 316L Stainless Steel (See Note 1)
TA = Tantalum
TI = Titanium - Grade 2
TF = Teflon-Virgin
VI = Viton

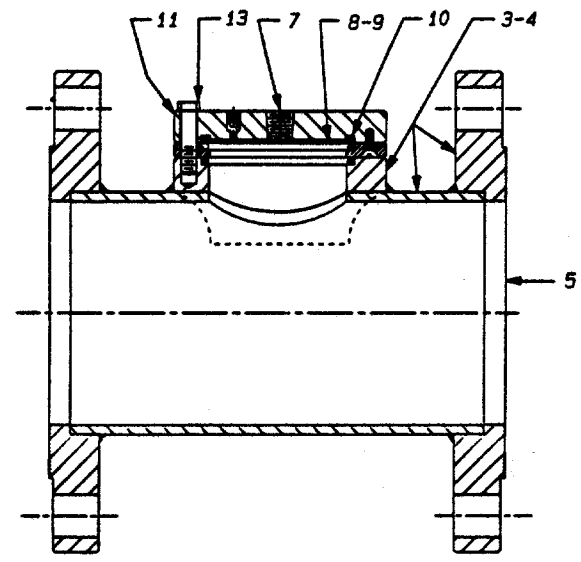
(7) SEAL INSTRUMENT CONNECTION
1 = 1/4" NPTF with bleed
2 = 1/2" NPTF with bleed

(6) SEAL PRESSURE RATING AND PIPE SCHEDULE @ 100°F (38°C) (See Notes 3, 4, 5 and 8)
M = 150#RF Schedule 5
N = 150#RF Schedule 40
P = 150#RF Schedule 80
R = 300#RF Schedule 40
S = 300#RF Schedule 80
T = 600#RF Schedule 40

(5) SEAL PROCESS CONNECTION (See Note 8)
6 = 1"
9 = 2"
B = 3"

(3-4) LOWER HOUSING MATERIAL (WETTED)(See Note 6)
C2 = Carpenter 20 CB-3
CS = Carbon Steel
HB = Hastelloy B3
HC = Hastelloy C-276
I6 = Inconel 600
M4 = Monel 400
N2 = Nickel 200
S4 = 304 Stainless Steel
S6 = 316 Stainless Steel
SF = 304L Stainless Steel
SL = 316L Stainless Steel
TI = Titanium - Grade 4

(1-2) DIAPHRAGM SEAL DESIGN
A9 = 100N- Flanged In-Line



Notes:
1. Standard diaphragm material is 316L Stainless Steel for seals with lower housing manufactured of CS, S4, S6, SL and SF.
2. Teflon o-rings cannot be used on seals with flange ratings 600# (4.14 MPa) or higher and/or with pipe schedules greater than 40.
3. Using Grade 5 bolts will maintain the pressure rating calculated from pipe size and schedule specified in Options 5 and 6 or Flange Rating, whichever is lower.
4. When using 300 Series Stainless Steel bolts, the maximum pressure rating calculated will be reduced by 50% when the flange rating is 600# (4.14 MPa) or higher and when the pipe schedule is greater than 40 as specified in Option 6.
5. Flange ratings above 600# (4.14 MPa) and/or pipe schedules greater than 40 will be supplied with high-strength stainless steel bolts to maintain the flange rating and/or pipe schedule rating when Stainless Steel bolts are required..
6. The clean-out ring is the same material as the lower housing.
7. N.A.C.E. - Non-welded diaphragm seals with 316 Stainless Steel, Hastelloy C-276 or Monel wetted materials of construction will meet the requirements of N.A.C.E. International Document MR-0175-1995.
8. Refer to Miscellaneous Data Section for ASME B31.1 Equation "4."
9. End-to-end dimension "L" conforms to ASME B16.5 straight tee dimensions for all pipe sizes 1-1/2" and larger. For pipe sizes less than 1", dimension "L" is 7.00" (178 mm).
10. Teflon-S® Coating (FEP grade).