

Model 400A

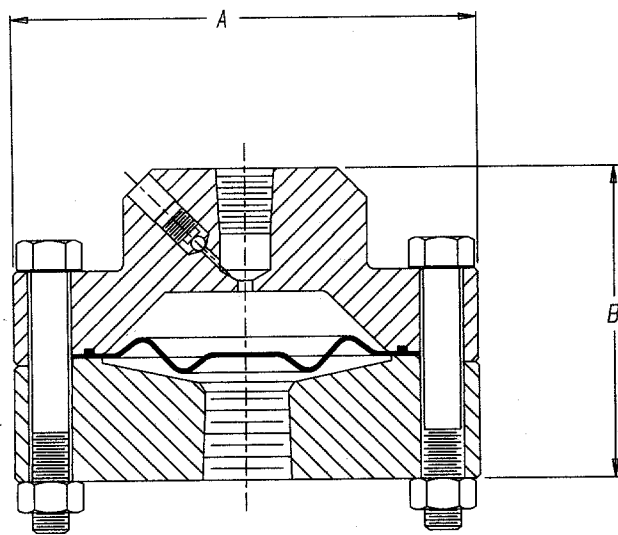
Diaphragm Seals for Threaded Off-Line Process Connections Standard Pressure Rating with Metal Lower Housing

Process Connection Sizes
1/4" NPTF through 1-1/2" NPTF
Maximum Working Pressure
750, 1500 PSIG (5.18, 10.35 MPa)
@ 100°F (38°C)
(See Notes 1, 2, 3 and 6)

Dimensional Data
Process Connection Size

1/8" - 1/4"		3/8" - 1"		1-1/4" - 1-1/2"	
A	B	A	B	A	B
4.00"	2.69"	4.00"	2.75"	4.00"	2.81"
(102)	(68)	(102)	(70)	(102)	(48)

() Dimensions in millimeters



Standard Features and Options

This threaded connection, off-line seal has a replaceable Viton diaphragm. The 400A Series Seals are designed to utilize a diaphragm that is field replaceable. The displacement capability of this series of diaphragm seal is 0.90 cubic inches with a 3.00" diameter diaphragm. The standard pressure rating is 1500 PSIG (10.35 MPa) when Stainless Steel bolting is not required (See Note 2). The seal off feature is standard and flushing ports are optional.

Offerings

Lower Materials: All metallic

Upper Materials: Carbon Steel or 316 Stainless Steel

Diaphragm Material: Viton

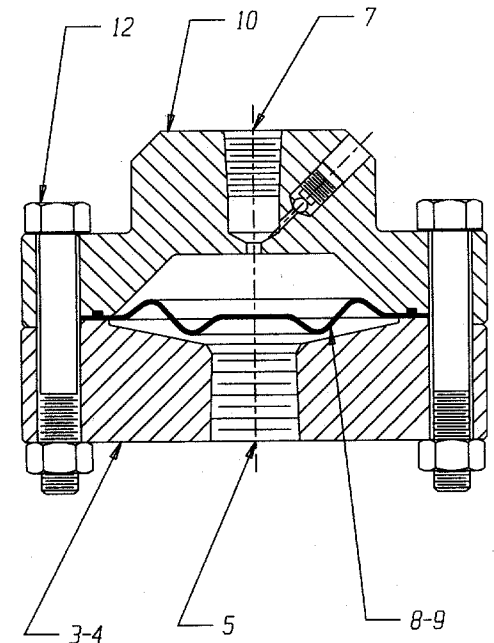
Bolting: Carbon Steel or 300 Series Stainless Steel (See Notes 1, 2, 3 and 6)

CONTROL ENGINEERING DATA

E1S6 4 X 1 VIC 0 C N

- (13) FILL LIQUID
N = (Standard)
- (12) BOLTING
C = Carbon Steel, Grade 5 (See Note 1)
S = 300 Series Stainless Steel (See Note 2)
H = 300 Series Stainless Steel (Hi-Strength) (See Note 3)
- (11) FLUSH CONNECTION (Not Shown)
0 = None (Standard)
1 = 1/8" NPTF
2 = 1/4" NPTF
3 = 1/4" NPTF-DUAL
- (10) UPPER HOUSING MATERIAL
C = Carbon Steel (Standard)
S = 316 Stainless Steel
- (8-9) SEAL DIAPHRAGM MATERIAL
VI = Viton
- (7) SEAL INSTRUMENT CONNECTION
1 = 1/4" NPTF w/Bleed
2 = 1/2" NPTF w/Bleed
- (6) SEAL PRESSURE RATING @ 100°F (38°C)
H = 750 PSIG (5.18 MPa) (See Note 2)
X = 1500 PSIG (10.35 MPa) (See Notes 1 and 3)
- (5) SEAL PROCESS CONNECTION (See Note 7)
2 = 1/4" NPTF
3 = 3/8" NPTF
4 = 1/2" NPTF
5 = 3/4" NPTF
6 = 1" NPTF
7 = 1-1/4" NPTF
8 = 1-1/2" NPTF
- (3-4) LOWER HOUSING MATERIAL (WETTED)
C2 = Carpenter 20 CB-3
CS = Carbon Steel
HB = Hastelloy B3
HC = Hastelloy C-276
I6 = Inconel 600
M4 = Monel 400
N2 = Nickel 200 (See Note 7)
S2 = 304 Stainless Steel
S6 = 316 Stainless Steel
SF = 304L Stainless Steel
SL = 316L Stainless Steel
TI = Titanium - Grade 4 (See Note 7)
TP = Tantalum Plate (Wetted Surface Only) (See Note 4)
- (1-2) DIAPHRAGM SEAL DESIGN
E1 = 400A- Threaded Off-Line

CATALOG NUMBERS AS RECEIVED FOR THE 400A SERIES MUST CONTAIN THIRTEEN (13) CHARACTERS.



Notes:

1. Using Grade 5 bolts and Grade 5 nuts will maintain the standard 1500 PSIG (10.35MPa) pressure rating chosen in Option 6.
2. When using 300 Series Stainless Steel bolts and nuts, the standard 1500 PSIG (10.35 MPa) pressure rating will be reduced by 50% to 750 PSIG (5.18 MPa).
3. To maintain the standard 1500 PSIG (10.35 MPa) pressure rating chosen in Option 6 when 300 Series Stainless Steel bolts and nuts are required, then stainless steel high-strength bolts and nuts will be necessary.
4. Adequate plating coverage of threaded connections cannot be guaranteed due to limitations and nature of the plating/coating process. Tantalum plated lowers cannot be supplied with flush connections.
5. 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.
6. Refer to Miscellaneous Data Section for Pressure-Temperature Rating Guide.
7. Maximum Working Pressure limited to 750 PSIG (5.18 MPa) @ 100°F (38°C) for lower housing with 1-1/4" and 1-1/2" NPTF connections that are constructed of Nickel 200 or Titanium Grade 4 due to connection thread strength limitations.

Model 400A

Diaphragm Seals for Threaded Off-Line Process Connections Reduced Pressure Rating for Non-Metallic Lower Housings

Process Connection Sizes

1/4" NPTF through 1-1/2" NPTF

Maximum Pressure Rating

200 PSIG (1.38 MPa) at 140°F (60°C)

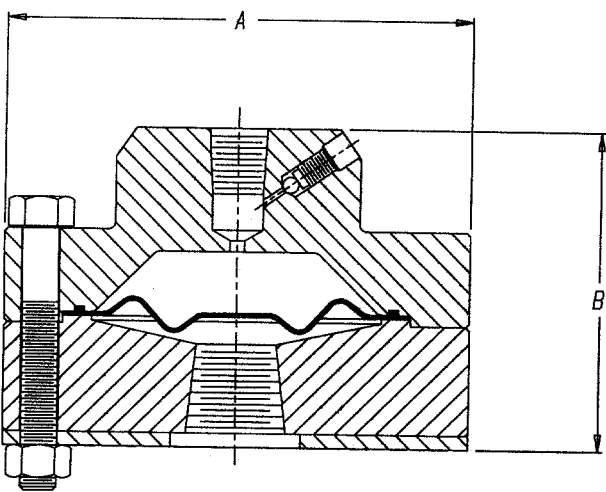
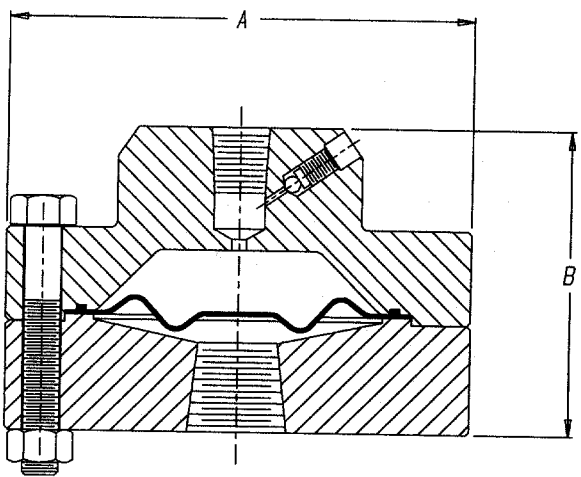
Maximum Temperature Rating (See Note 2)

Dimensional Data

Process Connection Size

1/8" - 1/4"		3/8" - 1"		1-1/4" - 1-1/2"	
A	B	A	B	A	B
4.00"	2.75"	4.00"	2.75"	4.00"	2.75"
(101)	(70)	(101)	(70)	(101)	(70)

() Dimensions in millimeters



TEFLON LOWER HOUSING

Standard Features and Options

This threaded connection, off-line seal has a replaceable Viton diaphragm. The 400A Series Seals are designed to utilize a diaphragm that is field replaceable. The displacement capability of this series of diaphragm seal is 0.90 cubic inches with a 3.00" diameter diaphragm. The pressure rating is limited to 200 PSIG with a maximum temperature of 140°F. Because of the strength of the material, flushing ports are not available. Teflon glass filled lowers will be supplied with a 316 Stainless Steel lower metal support plate to distribute bolt load and minimize cold flow. The seal off feature is standard.

Offerings

Lower Materials: All non-metallic

Upper Materials: Carbon Steel or 316 Stainless Steel

Diaphragm Material: Viton

Bolting: Carbon Steel or 300 Series Stainless Steel

Note: The use of 300 Series Stainless Steel bolts and nuts will not affect the maximum pressure rating.

CONTROL ENGINEERING DATA

E1KN 4 X 1 VIC 0 N

(12) FILL LIQUID

N = (Standard)

(11) BOLTING

C = Carbon Steel, Grade 5

S = 300 Series Stainless Steel

(10) UPPER HOUSING MATERIAL

C = Carbon Steel (Standard)

S = 316 Stainless Steel

(8-9) SEAL DIAPHRAGM MATERIAL

VI = Viton

(7) SEAL INSTRUMENT CONNECTION

1 = 1/4" NPTF w/Bleed

2 = 1/2" NPTF w/Bleed

(6) SEAL PRESSURE RATING @ 140°F (60°C)

G = 200 PSIG (1.38 MPa)

(5) SEAL PROCESS CONNECTION

2 = 1/4" NPTF

3 = 3/8" NPTF

4 = 1/2" NPTF

5 = 3/4" NPTF

6 = 1" NPTF

7 = 1-1/4" NPTF

8 = 1-1/2" NPTF

(3-4) LOWER HOUSING MATERIAL (WETTED)

KN = Kynar

PP = Polypropylene

PV = PVC

TC = Teflon - Carbon Filled

TG = Teflon - Glass Filled

(1-2) DIAPHRAGM SEAL DESIGN

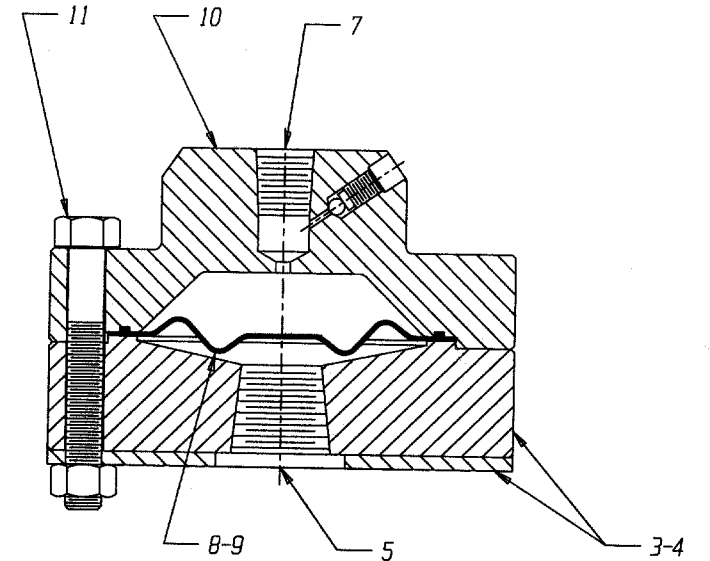
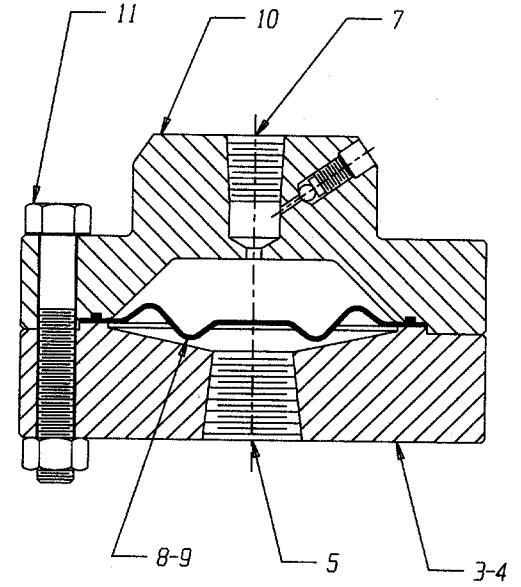
E1 = 400A- Threaded Off-Line

Note:

1. 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.

2. Refer to Miscellaneous Data Section for Pressure-Temperature Rating Guide.

CATALOG NUMBERS AS RECEIVED FOR THE 400A SERIES MUST CONTAIN TWELVE (12) CHARACTERS.



TEFLON LOWER HOUSING