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106/206 In-Line Flanged Diaphragm Seal

Features

- 316L Stainless steel top housing (standard)
- Available with diaphragm welded or bonded to top housing or removable threaded capsule diaphragms
- Flow through design reduces the possibility of clogging
- Large 2½″ diaphragm compatible with most Ashcroft instrumentation

Typical Uses

- Oil and gas
- Refineries
- Water and wastewater
- NACE-compliant processes (sour gas separation)
- Biogas and biodiesel

Specifications

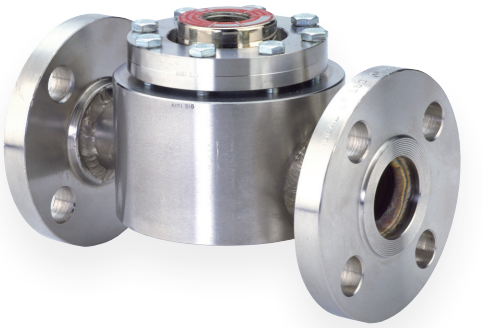
Connection style:	In-line flanged
Process Connection:	½, ¾, 1, 1½, 2, 3, 4, 6 or 8 NPS
Instrument Connection:	¼ or ½ NPT
Fill Fluid:	See table 3 on page 2

Wetted Components

Diaphragm	Bottom Housing	Gasket
See table 1 on page 2	See table 2 on page 2	PTFE (rated for -150 °F to 500 °F)

Non-Wetted Components

Top Housing	Bolt/Clamp Rings	Clamp Rings
316L Stainless steel	Carbon steel	Carbon steel



100 Series

Diaphragm Threaded to Top Housing - flexible design

200 Series

Diaphragm Welded or Bonded To Top Housing - eliminates leak path

Key Benefits

- Ideal for viscous media, slurries and emulsions
- Protects instrumentation from process media

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Table 1 - Diaphragm Materials

Material	Letter Code	100 Series	200 Series	Notes
316L Stainless steel	S	•	•	
304L Stainless steel	C	•	•	
904L Stainless steel	F		•	
Monel® 400	P	•	•	200 Series must be ordered with XYM Monel® top housing option
Tantalum	U	•	•	
Hastelloy® C-276	H	•	•	
Hastelloy® B	G	•	•	
Hastelloy® C-22	J	•	•	
Carpenter 20	D	•	•	
PTFE	T		•	Temp. limits: -40 °F to 400 °F
Viton™	Y		•	Temp. limits: -40 °F to 350 °F Max. pressure: 500 psi
Kalrez®	K		•	Temp. limits: 30 °F to 212 °F Max. pressure: 500 psi
Nickel	N	•	•	
Titanium	Ti		•	Includes titanium top housing
Gold Plated 316L Stainless steel	W	•		

Table 2 - Bottom Housing Materials

Material	Letter Code
304L Stainless steel	C
316L Stainless steel	S
Hastelloy® C-276	H
Top housing and mounting hardware only	X

Table 3 - Fill Fluids

Fill Fluid	Temperature	Viscosity (cSt at RT)	Variation Code	Notes
Glycerin (food grade)	0 °F to 400 °F (-18 °C to 204 °C)	1,300	CG	Direct-mounting only; Not for use with vacuum service
50 cSt Silicone	-40 °F to 500 °F (-40 °C to 260 °C)	50	CK	
10 cSt Silicone	-40 °F to 500 °F (-40 °C to 260 °C)	10	DJ	
Halocarbon® 4.2	-70 °F to 300 °F (-57 °C to 199 °C)	4.2	CF	For use with oxygen/oxidizing process media
Slytherm® 800	-40 °F to 750 °F (-40 °C to 400 °C)	10	HA	High temperature applications
Syltherm® XLT	-150 °F to 500 °F (-100 °C to 260 °C)	1.4	CC	Low temperature applications
Calflo® AF	-20 °F to 600 °F (-29 °C to 316 °C)	60	KF	High temperature, silicone-free
Mineral Oil	10 °F to 400 °F (-12 °C to 204 °C)	75	MY	
Neobee® M-20 (food grade)	5 °F to 400 °F (-15 °C to 204 °C)	9.5	NM	
Silicone (food grade)	-40 °F to 500 °F (-40 °C to 260 °C)	350	CZ	
50/50 Glycerin/Water	15 °F to 200 °F (-9 °C to 93 °C)	30	GH	
Propylene Glycol	-50 °F to 325 °F (-46 °C to 163 °C)	54	CV	
Ethylene Glycol	20° F to 325 °F (-7 °C to 163 °C)	14	FK	
50/50 Ethylene Glycol/Water	-25 °F to 190 °F (-32 °C to 88 °C)	2.9	CT	
80/20 Glycerin/Water	15 °F to 225 °F (-9 °C to 107 °C)	270	GR	
95/5 Water/Propylene Glycol	40 °F to 185 °F (4 °C to 8 °C)	1.0	PY	

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Ordering Code Example:	10	1	06	S	S	02T	XCK	SE	150	RF
Process Connection Size										
50 - ½″										
75 - ¾″										
10 - 1″										
15 - 1½″										
20 - 2″										
30 - 3″										
40 - 4″										
60 - 6″										
80 - 8″										
Diaphragm Type										
1 - 100-series: Capsule diaphragm threaded into top housing		1								
2 - 200-series: Diaphragm welded (metallic) or bonded (elastomeric) to top housing										
Lower Housing Type										
06 - In-line flanged lower housing (dual ASME flange connections)			06							
Diaphragm Materials										
S - 316L Stainless steel				S						
See Table 2 on page 2										
Bottom Housing Material										
S - 316L Stainless steel					S					
See table 3 on page 2										
Instrument Connection Size										
02T - ¼ NPT Female instrument connection						02T				
04T - ½ NPT Female instrument connection										
Options (if choosing option(s) must include an "X")							X__			
Fill Fluid (See Table 4 on page 3 for more available fill fluids)										
CK - 50 cSt Silicone							CK			
Optional Features										
YM - Monel® 400 top housing (must be ordered with Monel® or tantalum diaphragm)										
SE - Stainless steel rings and bolts								SE		
LD - Stainless steel locking device										
NH - Stainless steel tag										
DU - Instrument Welded to top housing (instrument connection must be like-material to top housing)										
MQ - Positive material identification										
6B - Cleaned for oxygen service										
CD-5 - NACE compliance certificate (must be ordered as a separate line item)										
Flange Rating										
150 - 150 class ASME									150	
300 - 300 class ASME										
Flange Type										
RF - Raised Face (contact Ashcroft for alternate flange form availability)										RF

When selecting an instrument, refer to the Min/Max Guide for compatibility with this diaphragm seal or scan the QR code to the right.

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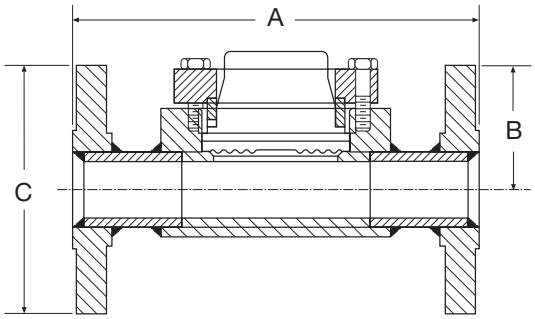
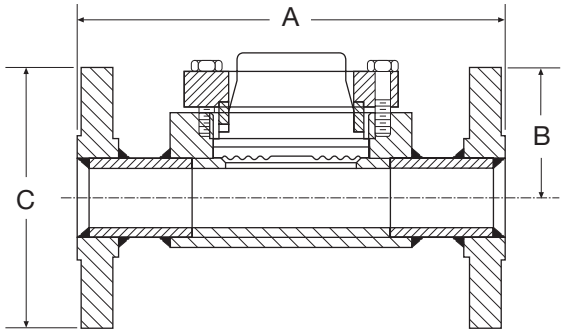
Dimensions in [ ] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

106/206 - In-Line Flanged Diaphragm Seal
½″, 1″, 1½″, 2″, 3″



106/206 - In-Line Flanged Diaphragm Seal
4″, 6″, 8″



Size	Flange Rating	A	B	C
½″	150#	7 [178]	2.44 [62]	3.50 [89]
	300#	7 [178]	2.44 [62]	3.88 [98]
1″	150#	7 [178]	2.44 [62]	4.25 [108]
	300#	8 [203]	2.44 [62]	4.88 [124]
1½″	150#	8 [203]	2.69 [68]	5.00 [127]
	300#	9 [229]	2.69 [68]	6.13 [156]
2″	150#	9 [229]	2.94 [75]	6.00 [152]
	300#	10 [254]	2.94 [75]	6.50 [165]
3″	150#	11 [279]	3.63 [92]	7.50 [191]
	300#	12 [305]	3.63 [92]	8.25 [210]

Size	Flange Rating	A	B	C
4″	150#	13 [330]	3.38 [86]	9.00 [229]
	300#	14 [356]	3.38 [86]	10.00 [254]
6″	150#	16 [406]	4.44 [113]	11.00 [279]
	300#	17 [432]	4.44 [113]	12.50 [318]
8″	150#	16 [406]	5.44 [138]	13.50 [343]

Blind Top Housing For Hydrostatic Testing

Blind top housings can be used to plug the installed lower housing when top housing / instrument ssembly is removed. Recommended during hydrotesting procedures on piping system.

Description	Includes	Part Number
Blind top housing kit 3-inch pipe sizes and smaller	316 stainless steel plug, PTFE gasket (single use) and 8 cap screws	101A234-01
Blind top housing kit 4-inch pipe sizes and larger	316 stainless steel plug, PTFE gasket (single use) and 8 cap screws	101A234-02
Extra single use PTFE gasket	1 PTFE single use gasket	ARR121D
Extra cap screw	1 cap screw	ALU83A

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