

Type 311/312 All-Welded “Midi” Diaphragm Seal



PRODUCT FEATURES

- All-welded metal construction, prevents leakage of process media
- No gaskets or bolts
- For use on pressure gauges up to 3½" from vac to 1000 psi and 4½" gauges 30 psi to 1000 psi
- Top housing material 316L stainless steel standard
- Diaphragm materials in 316L stainless steel, hastelloy C and tantalum
- Bottom housing materials in 316L stainless steel and Hastelloy C
- ¼ NPT or ½ NPT instrument connections
- Type 312 furnished with ⅛ NPT flushing connection
- Type 312 not available in male process connections

The compact size of the Ashcroft® 311/312 midi-seal allows it to fit into space-restricted areas and is designed to protect transducers, mini-switches, and 3½" or smaller dial size pressure gauges from corrosion, plugging or freeze-up. All-welded metal construction prevents leakage of process media. It is rated for 1000 psi at 100°F and has a 316L stainless steel top housing standard. Lower housing materials include 316L stainless steel or Hastelloy C. Diaphragm materials include 316L stainless, Hastelloy C or Tantalum. ¼, ½, ¾ or 1 NPT process connection sizes are available. Instrument connection is ¼ or ½ NPT.

PRODUCT SPECIFICATIONS

Model Number:	Type 311, 312
Process Connection Size:	Threaded male ¼, ½, ¾, 1 NPT Threaded female ¼, ½, ¾, 1 NPT
Type:	All-welded (311) All-welded w/flushing connection (312)
Diaphragm Material:	316L SS, Hastelloy C-276, Tantalum
Bottom Housing Materials:	316L SS, Hastelloy C-276
Instrument Connection Size:	Threaded female ¼, ½ NPT
Filling Fluid:	Glycerin, Halocarbon, Silicone, Syltherm

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Table A – Process Connection

Process Connection	Size	Code
Threaded – male NPT*	1/4	02
Threaded – male NPT*	1/2	04
Threaded – male NPT*	3/4	06
Threaded – male NPT*	1	08
Threaded – female NPT	1/4	25
Threaded – female NPT	1/2	50
Threaded – female NPT**	3/4	75
Threaded – female NPT**	1	10

*Available in Type 311 only.

**Not available in Type 312.

Table B – Type

Description	Code
All-welded midi-seal	311
All-welded midi-seal w/flushing connection	312

Table C – Diaphragm Materials

Materials	Code
316L SS	S
Tantalum	U
Hastelloy C-276	H

Table D – Housing Materials

Bottom ⁽¹⁾	Code	Top ⁽²⁾
316L SS	S	316L SS
Hastelloy C-276	H	316L SS

(1) Other bottom housing materials on application.

(2) Top housing material is 316L SS (standard). Monel mini-seal standard with monel top housing.

Table E – Instrument Connection

Instrument Connection	Size	Code
Threaded – female NPT	1/4	02T
Threaded – female NPT	1/2	04T

Table F – Filling Fluid

Fill	Service	Connection to Instrument	Temperature Range °F	Code
Glycerin	Pressure	Direct Only	0/400	CG
Silicone	Pressure/Vacuum	Direct or Flexible Line	-40/600	CK
Halocarbon	Pressure/Vacuum in presence of strong oxidizing agent	Direct or Flexible Line	-70/300	CF
Syltherm	Pressure	Direct or Flexible Line	-40/750	HA

Monel is a registered trademark of Huntington Alloys, Inc.

Hastelloy is a registered trademark of Cabot Corp.

Halocarbon is a registered trademark of Halocarbon Products

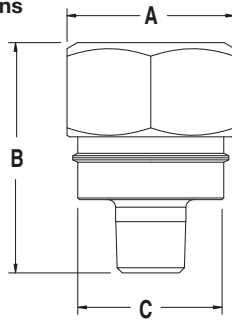
GYLON 3510 is a registered trademark of Garlock Inc.

HOW TO ORDER:

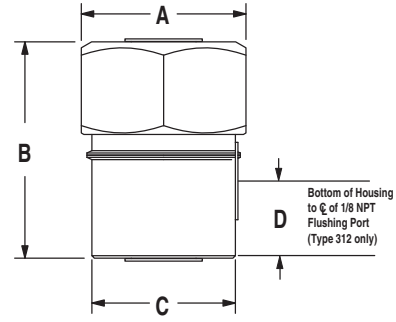
1. From Table A... select PROCESS CONNECTION (e.g., 1/4" process code 25)
2. From Table B... select TYPE. (311)
3. From Table C... select DIAPHRAGM MATERIAL. (e.g., 316L stainless steel-code S)
4. From Table D... select BOTTOM HOUSING MATERIAL. (e.g., 316 stainless steel-code S)
5. From Table E... select INSTRUMENT CONNECTION size. (e.g., 1/4 NPT-code 02T)
6. From Table F... select FILLING FLUID, if diaphragm seal will be attached to instrument. (e.g., Glycerin-code CG)

Coded order: 25-311SS-02T-CG

Dimensions



TYPE 311 MIDI-SEAL
MALE NPT PROCESS CONNECTION



TYPE 311 & 312 MIDI-SEAL – THREADED
(with and without flushing connection)

TYPE	A in mm	B in mm	C in mm	D in mm
311	2 (51)	1 1/4 (35)	1 1/4 (44)	– –
311/312	2 (51)	2.65 (67)	0.94 (24)	0.94 (24)