



Series
D

Bourdon Tube Pressure Switches — Pipe-Mounted Diaphragm Seals

Type MSAG/MSAH



SEAL WITH TYPE DA
PRESSURE
CONTROL



Type MSAG
(PLAIN)



Type MSAH
(CLEAN-OUT)

TYPE	MATERIAL
	EXPOSED SURFACES
MSAG	Steel or 316 SS
MSAH	Steel or 316 SS
XTBX	FEP and PVC

FEATURES

Maximum seal design pressure is 2500 psig for MSAG and MSAH, 100 psig XTBX. Seals can be filled after installation via Bleed Screw (7) in diagram at right. Thin, flexible diaphragm (2) is actuated by system pressure. Diaphragm transmits system pressure to seal's liquid fill (3) to operate the Bourdon tube of the protected control which attaches at (1). Chemical corrosion or other damage to seal from system's pressure medium can be prevented by proper selection of materials for the diaphragm, (2) bottom bowl (8) and other surfaces which the pressure medium will contact.

APPLICATION

Mercoïd® diaphragm seals prevent corrosive, viscous or other damaging pressure media (gas, liquid, etc.) from entering the pressure power element (Bourdon tube) in pressure or differential pressure controls. Plain seals cannot be field-disassembled for cleaning or other purposes.

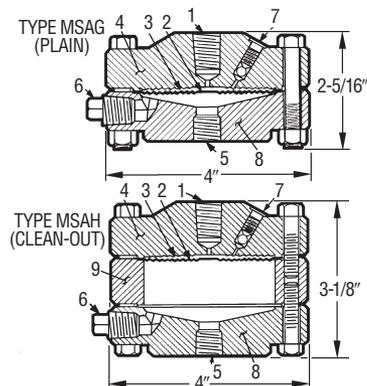
Mercoïd® clean-out type diaphragm seals *can* be field-disassembled for cleaning or other purposes. Top bowl (Key #4 in diagram at right) with both clean-out ring (9) and control attached can be removed while bottom bowl (8) is still connected to system. However, system must be shut down beforehand.

Seals cannot be used below 10" Hg vacuum.

To Order Seals – Plain or Clean-Out Types

When ordering, specify all of the following:

- Type and pressure range of control which seal is to protect.
- Diaphragm seal type desired.
- Diaphragm material – 316 stainless steel, FEP-coated 316 stainless steel, or Tantalum.
- Pressure medium-to-seal contact surfaces material-rust-resistant finish or 316 stainless steel.
- Size of seal-to-system connection 1/4", 1/2", 1", or 1 1/2" NPT.
- Temperature range of pressure medium.
- Ambient temperatures.



- 1 Pressure Control Connection
- 2 Diaphragm: 316SS, FEP-Coated 316SS or Tantalum
- 3 Liquid Fill
- 4 Top Bowl, rust-resistant finish
- 5 Seal-to-System Connection
- 6 Flushing Connection (1/4" NPT) and Removable Plug
- 7 Bleed Screw
- 8 Bottom Bowl, rust-resistant finish steel or 316SS
- 9 Clean-Out Ring

Mercoïd® diaphragm seals are not available for Range 15S & 16S Mercoïd Pressure Controls

NOTE: Controls and gauges with diaphragm seals can be affected by ambient and system temperature changes, particularly at low pressures. For these conditions, Mercoïd® Controls can be furnished with ambient temperature compensation (available only when control is mounted on seal). Write for details.

Most seals can be furnished with a remote copper or S.S. tubing connection between seal and control. A mounting bracket (No. 33-25) may be used for remote mounted controls. *Specify if remote connection is desired.*