

Model 120 Series "Filter Minder"[®] Piston-Type Differential Pressure Gauge FOR SEA WATER APPLICATIONS

- Body materials: Aluminum-Bronze or Monel. Monel Spring and Internals.
- Standard Ranges:
0-10, 0-15, 0-20, 0-25 and 0-30 PSID.
(For other ranges contact factory)
- Accuracy $\pm 5\%$ full scale ascending.
- Working pressure 5000 P.S.I.G.
(340 bar).
- Over-range protection to rated working pressure.
- Weather-resistant construction standard.
- 2-1/2", 3-1/2" or 4-1/2" round dial.
- Shatter-resistant lens.

Differential pressure is sensed by the movement of a floating piston magnet against a calibrated spring. The gauge pointer, outside the pressure housing, follows the movement of the piston magnet and indicates differential pressure.



2-1/2" Dial

One or two hermetically sealed S.P.S.T. or S.P.D.T. reed switches are optionally available to provide high and/or low alarm or control. They may be adjusted within the set point range identified in the switch rating table. A non-indicating differential switch version is also available. (Only a single switch is available on Monel bodies)

Reversed pressure ports are optionally available to facilitate installation.

Standard Hermetically Sealed Reed Switch Ratings (Resistive Load) (C)

Type	SPST NO	SPST NO	SPDT	SPDT
Option	B***	E	H	A
*Power	50W	60 W	60W	3W
Max. Current	0.5 Amps	3.0 Amps	1.0 Amps	0.25 Amps
Max. Voltage	240 VAC/240VDC	240 VAC/240 VDC	240 VAC/VDC	125 VAC/VDC
**Setting (F.S.)	10% to 100%	25% to 100%	25% to 100%	10% to 100%
Hysteresis (Max/Nom)	10% / 2% Full Scale (F.S.)	15% / 8% Full Scale (F.S.)	20% / 13% Full Scale (F.S.)	10% / 5% Full Scale (F.S.)
Repeatability	1% F.S.	1% F.S.	1% F.S.	1% F.S.
Leads	(2) 22 Awg, 24"	(2) 22 Awg, 24"	(3) 22 Awg, 24"	(3) 22 Awg, 24"

*Product of switching voltage and current shall not exceed the power rating of the device.

**Except where otherwise noted.

*** B option is available, however is not identified in Electrical Specifications. (Recommend using E)

Reed Switch Power Relay For High Loads

For loads above the switch rating, Mid-West Power Relay 1000TR, or an equivalent relay should be used. It may be used to control loads to 10 amps. The 1000TR is mounted on a standard 4" square junction box cover.

PART NUMBERING SYSTEM

① BASIC MODEL NUMBER

② MATERIAL

- M. Monel
- N. Aluminum-Bronze

③ DIAL TYPE

- A. 2-1/2" Round Uni-Directional Engrd. Plastic Housing Assy. (Standard)
- B. 2-1/2" Round Bi-Directional Engrd. Plastic Housing Assy.
- C. 4-1/2" Round Uni-Directional Engrd. Plastic Housing Assy.
- D. 4-1/2" Round Bi-Directional Engrd. Plastic Housing Assy.
- E. 3-1/2" Round Uni-Directional Anod. Aluminum Housing Assy.
- F. 3-1/2" Round Bi-Directional Anod. Aluminum Housing Assy.
- G. 4-1/2" Round Uni-Directional Anod. Aluminum Housing Assy.
- H. 4-1/2" Round Bi-Directional Anod. Aluminum Housing Assy.
- T. Non-Indicating Differential Pressure Switch Only (Select Appropriate Electrical Option)
- Z. Special (Uncoded Options)

④ SEALS

- 0. Buna N (Standard)
- 1. Viton®
- 2. Neoprene
- 4. Teflon®
- 5. Ethylene Propylene
- 6. Perfluoroelastomer
- 9. Special (Uncoded Options)

*Viton® is a Registered Trademark of DuPont Dow Elastomers.
**Teflon® is a Registered Trademark of DuPont.

⑤ CONNECTIONS

- 2. 1/4" FNPT End Connections
- 9. Special (Uncoded Options)

⑥ OPTIONS (Up to four options)

- O. None (Standard)
- A. Reversed High/Low Process Connections
- C. Mounting Holes in Gauge Body for Field Mounting of Electrical Configurations Options A & B
- D. Mounting Holes in Gauge Body for Field Mounting of Electrical Configurations Options L & M
- F. Pipe Mounting Kit (Carbon Steel) (CONTACT FACTORY)
- L. Liquid Fill (Not available w/follower pointer) (not available with 3-1/2" dial)
- M. Maximum Indicator Follower Pointer
- T. Oxygen Cleaning
- U. S.S. Tag Mounted w/S.S. Wire
- V. S.S. Tag Mounted w/S.S. Screws
- W. Wall Mounting Kit
- X. Individual Gauge Packaging
- Z. Special (Uncoded Options)

NOTE: NOT ALL OPTIONS AVAILABLE IN COMBINATION WITH OTHER OPTIONS.

⑦ ELECTRICAL CONFIGURATIONS

(NOTE: All options "E" marked, except E, F, J & K)

- O. None
- A. One (1) Switch in STD. Enclosure with Grommet Wire Seal
- B. Two (2) Switches in STD. Enclosures with Grommet Wire Seal
- C. One (1) Switch in STD. Enclosure with 1/4" FNPT Conduit Connection NEMA 4X
- D. Two (2) Switches in STD. Enclosures with 1/4" FNPT Conduit Connection NEMA 4X
- E. One (1) Switch in General Purpose Enclosure, CSA & U.L. Listed, Division II Locations (1) (2)
- F. Two (2) Switches in General Purpose Enclosure, CSA & U.L. Listed, Division II Locations (1) (2)
- L. One (1) Switch in STD. Enclosure with Plug-In Connector (DIN 43650/IP65-PG11)
- M. Two (2) Switches in STD. Enclosure with Plug-In Connector (DIN 43650/IP65-PG11)
- Z. Special (Uncoded Options)

- 1. Complete Assembly Rated Class I, Div. II, Groups A, B, C, & D; Class II, Div. II, Groups F and G.
- 5. 5000 PSIG Working Pressure.

⑧ ELECTRICAL SPECIFICATIONS (For Resistive Loads)

- A. S.P.D.T., 3W, 0.25 Amp., 125 VAC/VDC (Standard) (Switch adjustable range of 10-90%)
- E. S.P.S.T., 60W, 3.0 Amp., 240 VAC/VDC (Normally Open) (Switch adjustable range of 25-95%)
- F. S.P.S.T., 60W, 3.0 Amp., 240 VAC/VDC (Normally Closed) (Switch adjustable range of 25-95%)
- G. S.P.S.T., 60W, 3.0 Amp., 240 VAC/VDC One (1) Normally Open, One (1) Normally Closed (Aluminum-Bronze only) (Available with Electrical Configurations B,D, F & M only) (Switch adjustable range of 25-95%)
- H. S.P.D.T., 60W, 1.0 Amp., 240 VAC/VDC (Switch adjustable range of 25-100%)
- Z. Special (Uncoded Options)

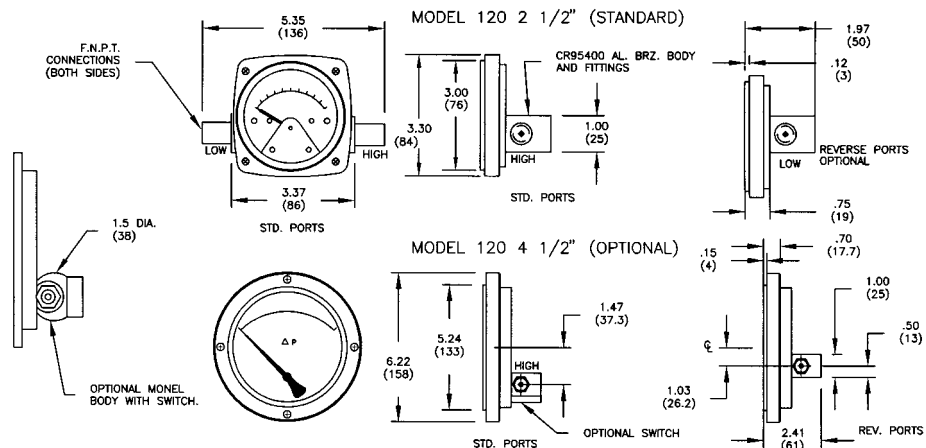
NOTE: FACTORY PRESET SWITCHES AT NO CHARGE (SPECIFY SETTING)

NOTE: THE USE OF DIAPHRAGM SEALS IS NOT RECOMMENDED FOR MODEL 120 SERIES GAUGE. ATTEMPTS TO INSTALL SUCH SEALS ON THIS GAUGE WILL VOID THE WARRANTY.

(Up to three options)

MOUNTING INFORMATION & DIMENSIONAL DATA

- NOTES: 1. Drawings show standard gauge nominal dimensions. (not to scale)
2. Dimensions shown in parentheses are in millimeters.



PROOF PRESSURE: Two times working pressure or 10,000 PSI whichever is lower at ambient temperature.

TEMPERATURE LIMITS: -40°F (-40°C) to +200°F (+93°C) - These limits are based on the entire instrument being saturated to these temperatures. System (process) temperatures may exceed these limitations with proper installation. Contact our customer service representative for details.

Manufacturer reserves the right to change specifications without prior notice.

Mid-West
Instrument



Engineering &
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REPRESENTED BY:

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