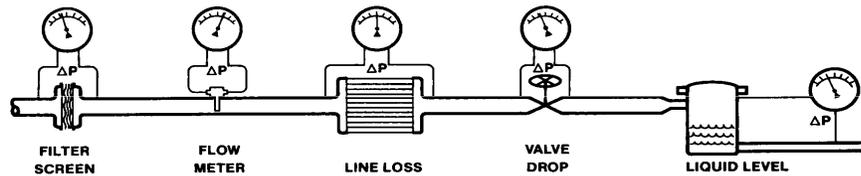


Mid-West[®] Instrument



MODEL 123: "Filter Minder"[®] Installation and Operating Instructions

INSPECTION

Before installation check the nameplate on each instrument against the receiving paperwork and the intended application for correct part number, materials of construction, working pressure, dial range, etc. If equipped with switches, check electrical rating. Inspect for shipping damage and, if damaged, report it immediately.

NOTE - Before attempting repairs contact your local Mid-West Representative or our factory. Failure to do so will void any warranty.

PRODUCT DESCRIPTION

The Model 123 "Filter Minder"[®] is a differential pressure instrument available as a switch, a gauge, or both.

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

When equipped with switches, a contact is made or broken by the magnetic field of the piston magnet. The unit provides full over-range protection to the rated working pressure of the housing in either direction.

INSTALLATION

The model 123 is calibrated and tested prior to shipment and is ready for immediate installation. Use of the following installation procedures should eliminate potential damage and provide optimum trouble-free operation.

1. PROCESS CONNECTIONS

1/4" FNPT are provided as standard. There are two connections on the housing identified as "hi" and "lo" for high pressure and low pressure. Be sure these get plumbed to the proper connections on your system. Improper connection will not damage the instrument, but it will not function properly. Flexible tubing is recommended to minimize effect of possible vibration.

2. INSTRUMENT LOCATION

On liquid service the instrument should be mounted **below** the process connections to facilitate self-bleeding. On gas service it should be located **above** the process connections to promote self-draining. If the process contains particulates, a "pigtail" loop or drop leg (manometer "U-tube" configuration) in the tubing will minimize the possibility of it migrating into the instrument.

3. PANEL MOUNTING

Gauges with 2-1/2" dials can only be mounted through the **rear** of the panel. Make the proper panel cutout as indicated in (Fig .1). Remove the (4) bezel screws. Insert the gauge front through the rear of the panel and reinstall the bezel screws through the front of the panel and into the gauge bezel. Tighten the screws securely, alternating in a **diagonal** pattern.

Gauges with 4-1/2" dial should be mounted from the **front** of the panel. Make the cutout as indicated in (Fig. 1). Insert the (4) panel mounting studs, finger tight, into the metal inserts located in the rear of the bezel. Insert the gauge through the panel, aligning the panel mounting studs with the holes in the panel. Install the (4) #8-32 nuts onto the studs and tighten securely.

TROUBLESHOOTING

1. Gauge does not indicate differential.

- A. Check for proper hook up, high to "hi" low to "lo".
- B. Make certain block valves are open and that the equalizer (balance) valve is closed (if using a 3 valve manifold).
- C. If A & B check out correctly, loosen high-pressure line to determine if there is pressure to the instrument.
- D. Verify gauge is not in an electromagnetic / magnetic environment. i.e.; close proximity to high current power lines.
- E. If there is pressure to the instrument, check to determine that there is differential across the unit being monitored. If so, contact the factory for assistance and/or and "RGA" (Return Goods Authorization) number to return the instrument for repair or replacement.

MODEL 123 MOUNTING INFORMATION & DIMENSIONAL DATA

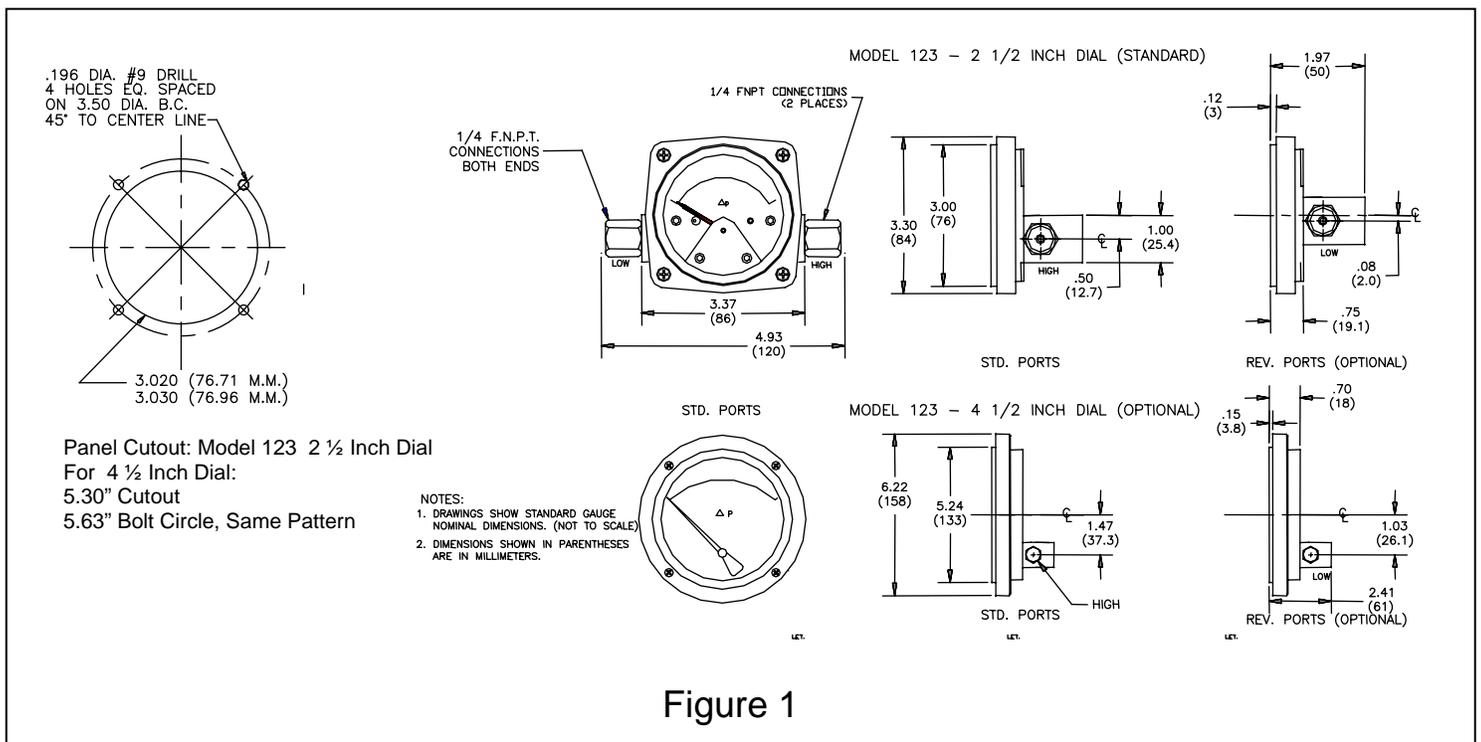


Figure 1

PROOF PRESSURE: 10,000 PSI.

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.

STANDARDS: All model 123 Series differential pressure gauges either conform to and/or are designed to the requirements of the following standards:

ASME B1.20.1
ASME B40.100
CSA-C22.2 No. 14, & 213
UL Std. No. 50,508, & 1604

NACE MRO175
NEMA Std. No. 250
SAE J514
EN-61010-1