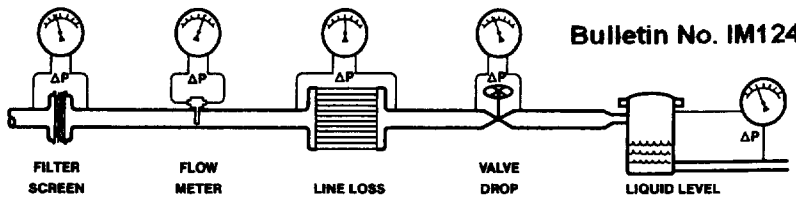
Mid-West®
Instrument



Bulletin No. IM124/07

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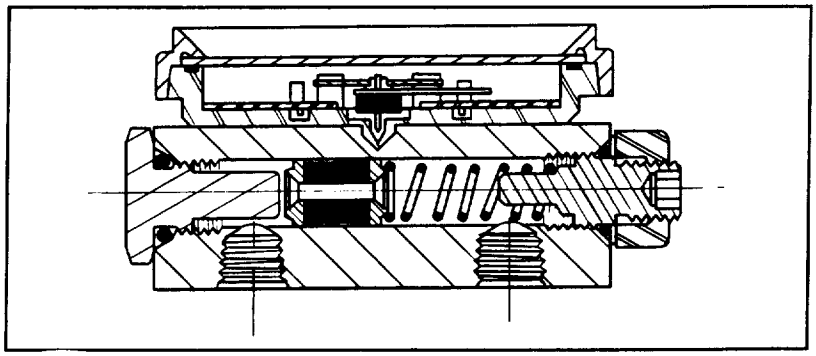
Model 124 Series "Filter Minder"®
Installation and Operating Instructions



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. 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 124 Series "Filter Minder"® is a rugged medium-range differential pressure instrument.

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. The precise piston/bore fit allows minimal leakage from high to low sides. This leakage is only 50 to 15 SCFH air at ambient conditions and a pressure differential of 100 PSID.

Working Pressure: 10,000 PSIG
Proof Pressure: 20,000 PSIG
Over-range Differential Pressure: 5,000 PSID
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.

Standards: All Model 124 Series differential pressure gauges either conform to and/or are designed to the requirements of the following standards:

ASME B1.20.1	NEMA Std. No. 250
ASME B40.100	SAE J514
NACE MR0175	UL Std. No. 50

INSTALLATION

Model 124 Series "Filter Minder"® 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. CONNECTIONS

1/4" FNPT are provided as standard but check paperwork for connections ordered. There are two connections on the housing identified as "hi" and "lo" for high pressure and low pressure (Fig. 2). 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 the effect of any vibration that may exist.

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 3-1/2" dial should be mounted from the front of the panel. Contact factory for mounting information and dimensional data.

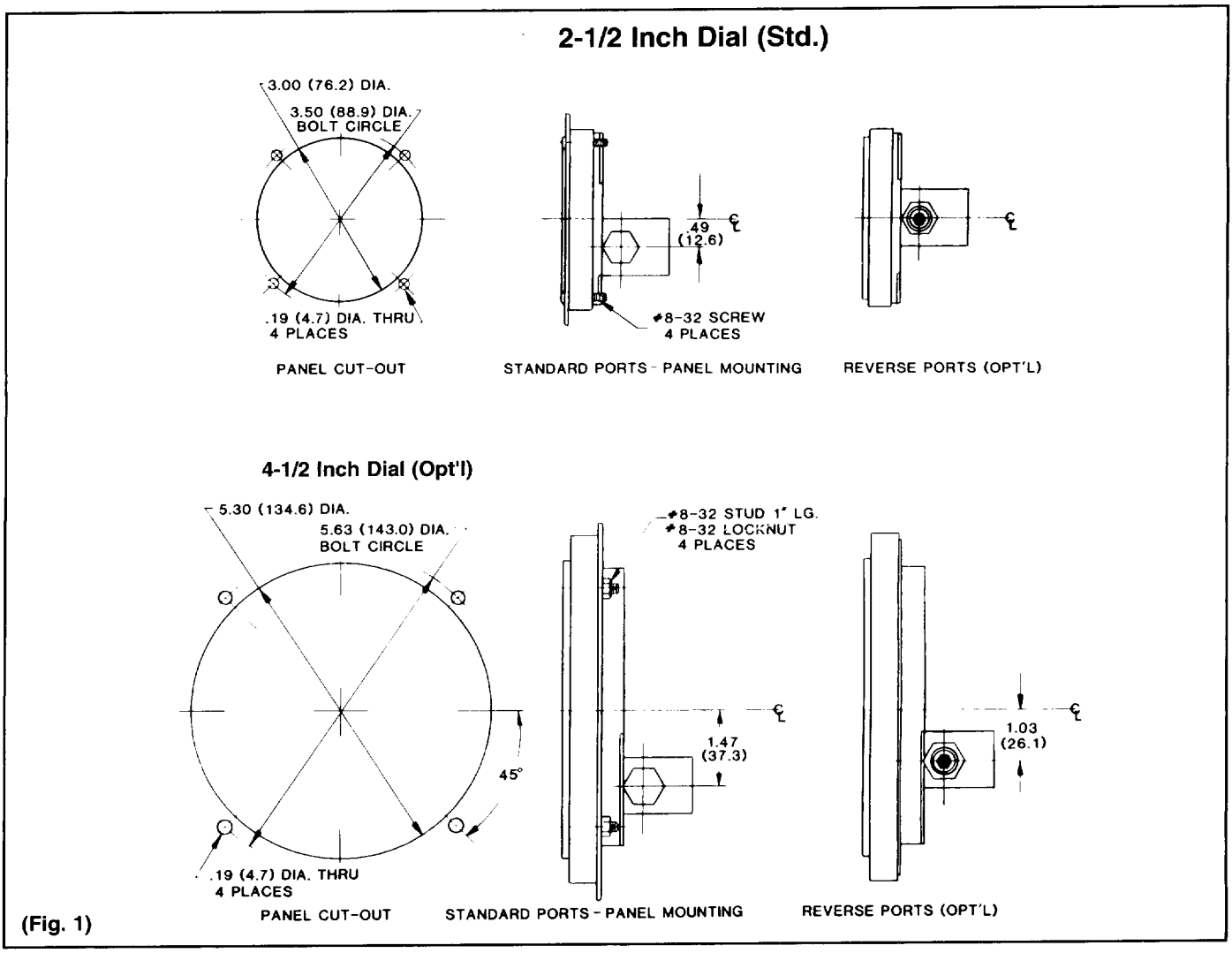
Gauges with 4-1/2" dial should be mounted from the **front** of the panel. Make the cutout as indicated in (Fig. 1). Insert the (4) panel mounting studs, finger tight, into the metal inserts located in the rear of the bezel. Insert the gauge through the panel, aligning the panel mounting studs with the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

4. PIPE MOUNTING

An optional pipe mounting kit is available for mounting the gauge to a 2" vertical or horizontal pipe (Fig. 3).

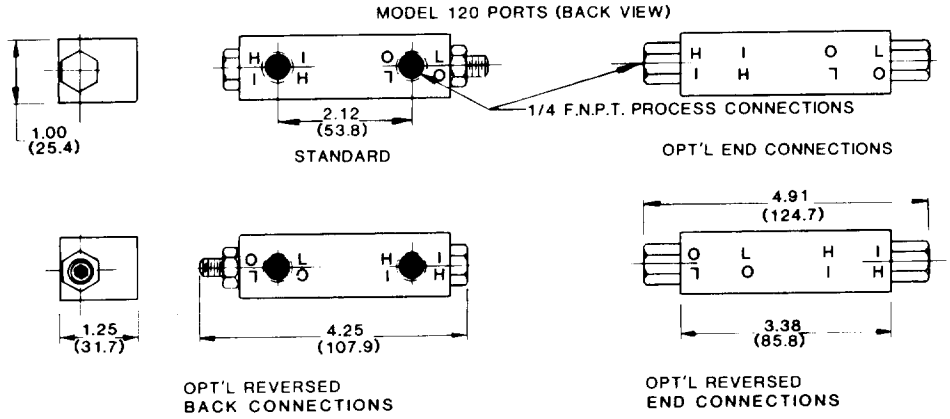
TROUBLE SHOOTING

1. **Gauge does not indicate differential.**
   - A. Check for proper hook up, high to "hi" and low to "lo".
   - B. Make certain block valves are open and, if using a 3-valve manifold, that the equalizer (balance) valve is closed.
   - C. If A & B check out correctly, loosen or disconnect the high pressure line to determine if there is pressure to the instrument.
   - D. 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 an "RGA" (return goods authorization) number to return the instrument for repair or replacement.

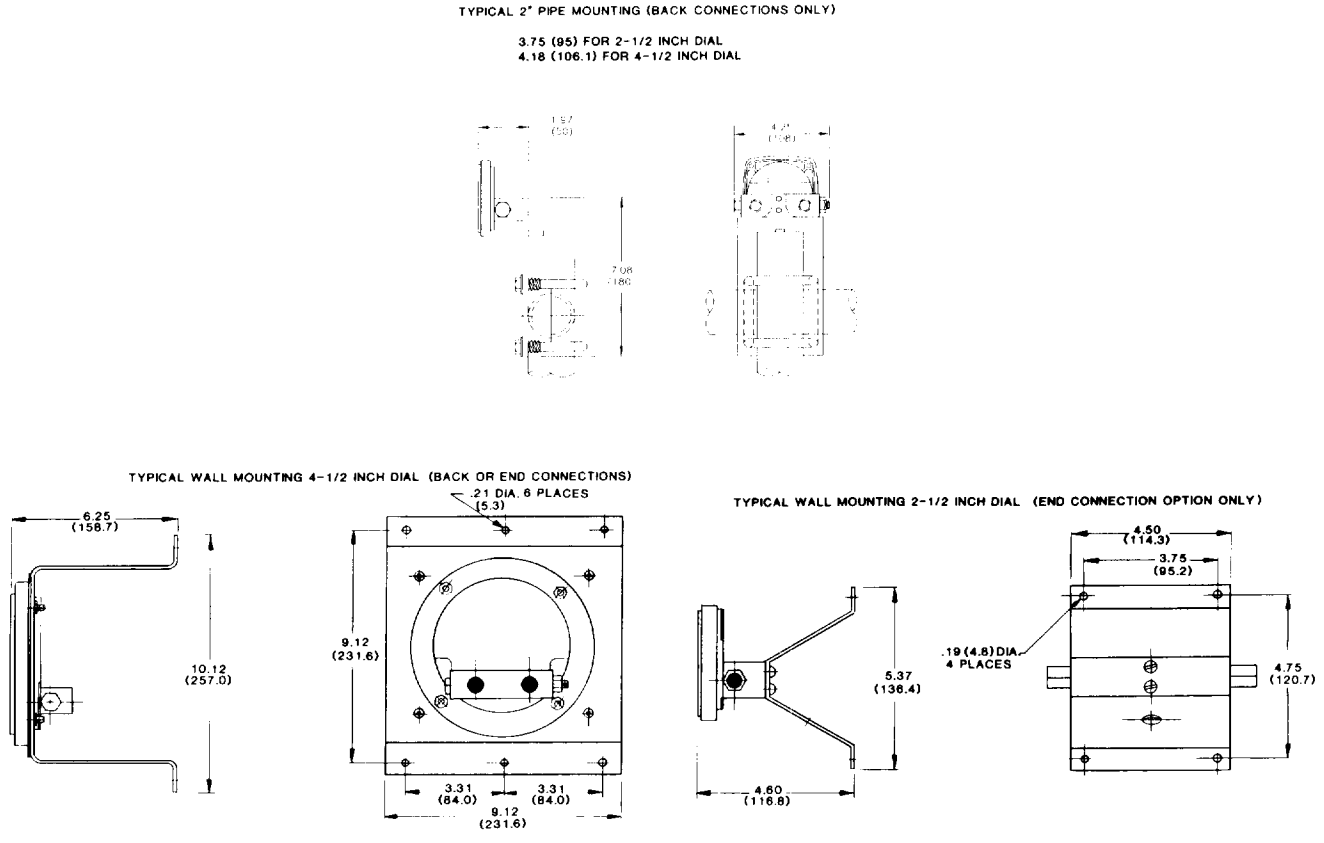


(Fig. 1)

Supplementary Dimensional/Mounting Data



(Fig. 2)



(Fig. 3)

NOTES: 1. Drawings show standard gauge nominal dimensions. (not to scale)
2. Dimensions shown in parentheses are in millimeters.
3. Manufacturer reserves the right to change specifications without prior notice.