



Series PTG Differential Pressure Piston-Type Gage

Specifications - Installation and Operating Instructions



Series PTGA



Series PTGB



Series PTGC

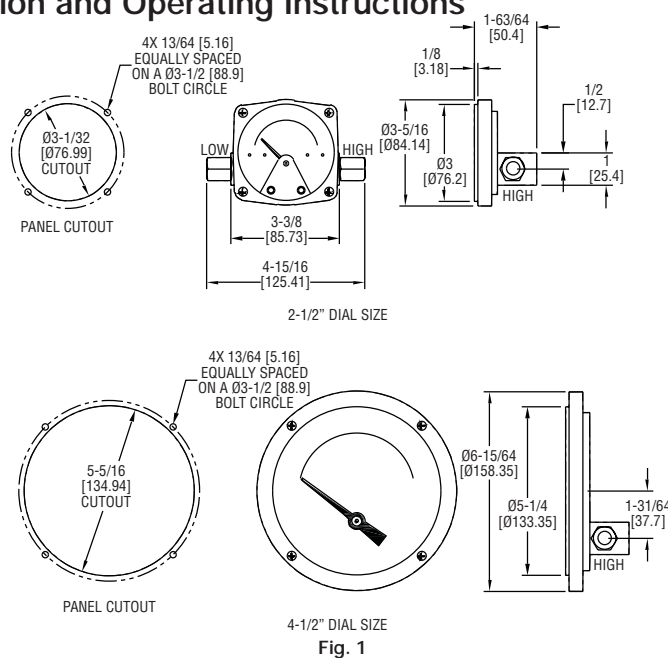


Fig. 1

The Series PTG Differential Pressure Piston-Type Gage can be used to measure the pressure drop across filters, strainers, pump performance testing, and heat exchanger pressure drop monitoring. Its simple, rugged design possesses a weather and corrosion resistant gage front with a shatter resistant lens. The Series PTG contains a piston-sensing element, which provides different differential pressure ranges with full-scale accuracies of $\pm 2\%$ to $\pm 5\%$. Constructed from aluminum or 316 Stainless Steel and available with two 1/4" FNPT end connections, the Series PTG provides over-range protection rated to 5000 PSIG (340 bar) or 6000 PSIG (400 bar) depending on model.

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.

INSTALLATION

The Series PTG 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 to get these 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 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: Gages 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 gage front through the rear of the panel and reinstall the bezel screws through the front of the panel and into the gage bezel. Tighten the screws securely, alternating in a diagonal pattern.

Gages 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

Service: Compatible gases and liquids.

Wetted Materials: Gage body – Aluminum or 316L SS (only aluminum for Series PTGC).

Piston – 316L SS.

Spring – 316L SS.

Ceramic Magnet.

End Plugs- Aluminum (Aluminum Body); 316L SS (SS Body); only Aluminum for Series PTGC.

Seals- Buna-N (standard).

Dial Case: "Engineered Plastic" with shatter-resistant acrylic lens.

Accuracy: $\pm 3-2-3\%$ (Series PTGA & PTGB) of full scale in accordance with ASME B40.100 Grade B; $\pm 5\%$ of full scale ascending (Series PTGC).

Pressure Limits: Working pressure: 5000 PSIG (340 bar) - Series PTGA & PTGC; 6000 PSIG (400 Bar) - Series PTGB. Proof Pressure: 10,000 PSIG (689 bar) - Series PTGA & PTGC; 12,000 PSIG (827 Bar) - Series PTGB.

Temperature Limits: -40 to 200 °F (-40 to 93 °C).

Size: 2.5" (63 mm) 4.5" (115 mm).

Mounting Orientation: Mount in any position.

Process Connections: 1/4" Female NPT end connections.

Weight: Aluminum - 2.5" x 0.60 lbs (0.27 kgs), 4.5" x 0.95 lbs (0.43 kgs); 316 SS - 2.5" x 1.35 lbs (0.61 kgs), 4.5" x 1.60 lbs (0.73 kgs).

the metal inserts located in the rear of the bezel. Insert the gage 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

- Check for proper hook up, high to "hi" low to "lo".
- Make sure that certain block valves are open.
- If A & B check out correctly, loosen high-pressure line to determine if there is pressure to the instrument.
- Verify that the gage is not in an electromagnetic/magnetic environment. i.e.; close proximity to high current power lines.

MAINTENANCE

The Series PTG differential pressure gages are not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.