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 shutter resistant lens. The Series PTG contains a piston-sensing element, which provides different differential pressure ranges with full-scale accuracies of ±2% to ±5%. Constructed from aluminum or 316 Stainless Steel and available with two 1/4" FPT end connections, the Series PTG provides over-range protection rated to 5000 PSIG (340 bar) or 6000 PSIG (400 bar) depending on model.

**Specifications - Installation and Operating Instructions**

**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" FPT 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-draining. On gas service, it should be mounted above the process connections to promote self-draining. If the process contains particulates, a "pigtail" loop or drop leg (manometer "U-tube") should be located above the process connections to facilitate self-bleeding. On gas service, it should be located below the process connections to facilitate self-bleeding.

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 from 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 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.

**Application Notes:**

- Be sure to get these plumbed to the proper connections on your system.

**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.

**Troubleshooting**

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

**Specifications**

- **Pressure Ranges:** 1/4" FPT, 2.5" (63 mm) 4.5" (115 mm).
- **Accuracy:** ±3-2-3% (Series PTGA & PTGB) of full scale in accordance with ASME B40.100 Grade B; ±5% of full scale ascending (Series PTGC).
- **Pressure Limits:** PTGA & PTGC: 12,000 PSIG (827 Bar) - Series PTGB; 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.
- **Wetted Materials:** Gage body – Aluminum or 316L SS (only aluminum for Series PTGC). Piston - 316L SS. Spring – 316L SS. Ceramic Piston Head. 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.
- **Seals:** Buna-N (standard).
- **Mounting:** Mount in any position.
- **Pressure Connection:** 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).

**Piping Considerations:**

- Be sure to get these plumbed to the proper connections on your system.

**Troubleshooting:**

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

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