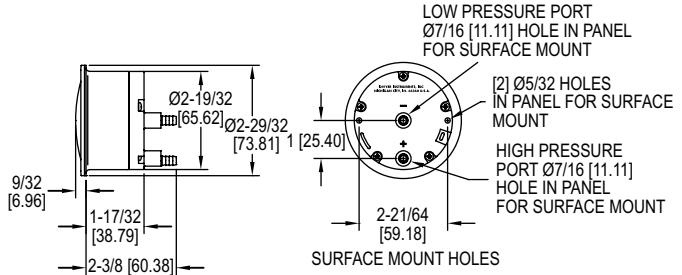




Series 2-5000 Minihelic® II Differential Pressure Gage

Specifications - Installation and Operating Instructions



Series 2-5000 Minihelic® II Differential Pressure Gage has a clean design, small size, low cost and sufficient accuracy for all but the most demanding applications. With housing molded from mineral- and glass-filled nylon and a lens molded from polycarbonate, this gage will withstand rough use and exposure, as well as high total pressure up to 30 psig (2.067 bar). Over-pressure is accommodated by a blow-out membrane molded in conjunction with the diaphragm.

INSTALLATION

1. Select a location free from excessive vibration and where ambient temperature will be between 20°F to 120°F (-6.7°C to 49°C). Sensing lines may be any length necessary without affecting accuracy. However, long runs of tubing will dampen readings slightly and cause a minor increase in response time. If pulsing pressure or vibration cause excessive pointer oscillation, please contact factory for ways to provide additional damping.
2. This gage is calibrated and zeroed in the vertical position at the factory. If the gage is used in any other position, it must be re-zeroed each time the position is changed. Gages with ranges under 5 inches w.c. (1.24 kPa), or the equivalent, should be used only in the vertical position unless special calibration was specified when ordering.

SPECIFICATIONS

Dimensions: 2-29/32" (73.82 mm) x 2- 7/16" (61.93 mm).

Weight: 6 oz. (170 g).

Rated Total Pressure: 50 psig (3.445 bar) surge; 30 psig (2.067 bar) continuous to either pressure connection.

Ambient Temperature Range: 20°F to 120°F (-6.67°C to 48.9°C).

Accuracy: ± 5% of FS at 70°F (21.1°C).

Connections: Standard, barbed for 3/16" I.D. tubing; optional, 1/8" NPT (M).

Housing: Glass-filled nylon, polycarbonate lens.

Finish: Black.

Standard Accessories: (2) 4-40 x 1-5/8" mounting studs, (2) 4-40 hex nuts, (1) .050" hex allen wrench, (1) panel mounting bracket.

Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.

Agency Approvals: Meets the technical requirements of EU Directive 2011/65/EU (RoHS II).

CAUTION

Use only with air or compatible non-corrosive gases.



3. To surface-mount the gage, drill two 5/32" (3.97 mm) holes on a horizontal line, 2-1/3" (59.26 mm) apart for mounting screws. Next, drill two 7/16" (11.11 mm) holes 1-1/32" (26.19 mm) apart on a vertical line for pressure connections. Install mounting studs in back of the gage, insert through holes in the panel, and secure with hex nuts provided. Be careful not to block the slotted hole near the right-hand mounting hole. This provides a path for pressure relief in the event of over-pressurization.
4. To panel-mount gage, cut a 2-5/8" diameter hole. Install the mounting studs in the back of gage, position gage in the panel, and place bracket over the studs. Thread hex nuts over studs and tighten.
5. After installation, the gage may need to be zeroed before placing in operation. If re-zeroing is required, firmly hold the case of gage with one hand and unscrew the front cover with the palm of the other hand in a counterclockwise direction. If difficult to loosen, place a small sheet of rubber between the cover and the palm of the hand. Zero-adjust screw is located behind the scale at the pair marked "zero." Use the hex allen wrench supplied and adjust until pointer is on zero. This must be done with both pressure connections vented to atmosphere and the gage oriented in the final mounting position. Replace cover.

6. To measure positive pressure, connect tubing to port marked "HI" and vent "LO" port to atmosphere. For negative pressure (vacuum), connect to port marked "LO" and vent "HI" port to atmosphere. For differential pressure, connect higher pressure to port marked "HI" and lower to "LO" port. If gage is supplied with 1/8" NPT connections, be careful not to over-tighten fittings to avoid damage to the gage.

CALIBRATION CHECK

Select a second gage or manometer of known accuracy and in an appropriate range. Use short lengths of rubber or vinyl tubing to connect the high-pressure side of the MiniHelic® II gage and the test gage to two legs of a tee. Very slowly, apply pressure through the third leg. Allow enough time for pressure to equalize throughout the system and for fluid to drain, if a manometer is being used. Compare readings. If the gage being tested exceeds rated accuracy, it should be returned to the factory for recalibration.

MAINTENANCE

No lubrication or periodic servicing is required. Keep case exterior and cover clean. Occasionally, disconnect pressure lines to vent both sides of the gage to atmosphere and re-zero per paragraph 5.