

APPLICATION

The pressure transmitter is used to measure relative pressure of liquid and gases compatible with 316 L stainless steel material.

PLUMBING

The stainless-steel pressure sensor incorporates 1/4" NPT male threads for connection to the pipe being monitored. It is recommended to use Teflon tape to prevent leaks.

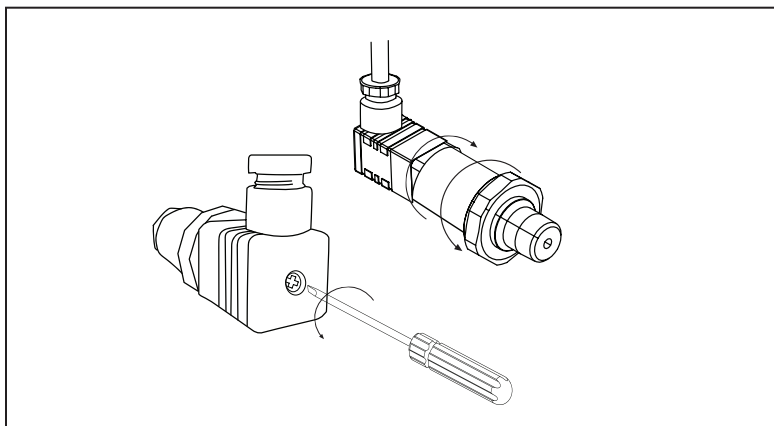
IMPORTANT

Ensure the sensor port, fitting or shutoff valve is free of any fluids or material contamination in the area where the sensor is being installed. Failure to remove excessive fluids may damage the sensor during pressurization.

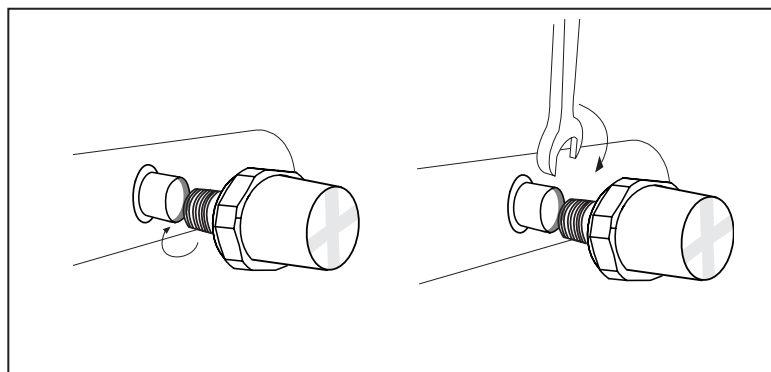
1. DO NOT shock, disassemble or break the sensor diaphragm.
2. Install in a cool/dry environment without corrosion.
3. Seal process tightening torque <40Nm (29.5 ft-lbs).
4. Compatible medium only (liquid fluid or gas air).
5. Prevent pressure sensor overload damage.
6. Follow electrical connection instruction and avoid water/moisture.
7. Please power off during any maintenance.

For the pressure conduit piping connectivity

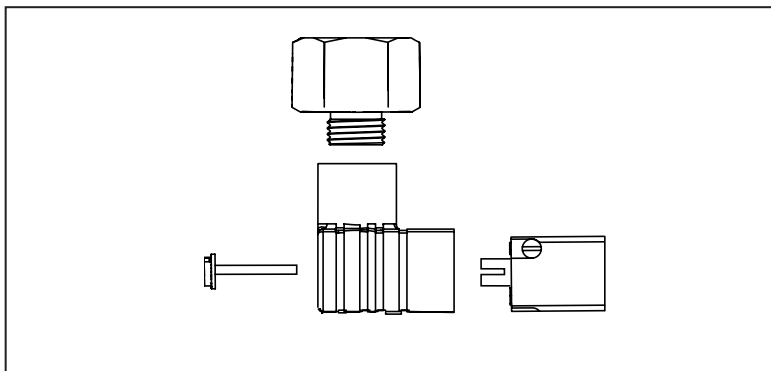
Remove the DIN C connector from the sensor process connection by unscrewing the top head.



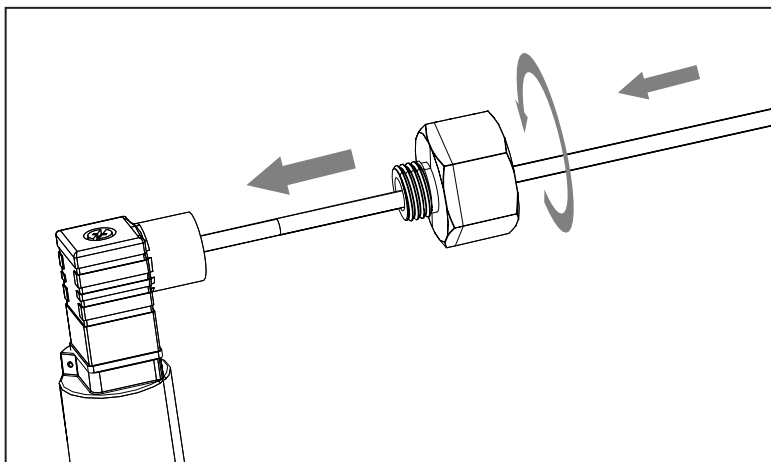
Install the sensors into the system plumbing (use 3/4" hex to tighten). Tape the electrical termination to avoid water infiltration.



Separate the terminal block parts for wiring as shown below.



Feed wires through the PG7 conduit fitting provided conduit and insert them into the DIN C connector.



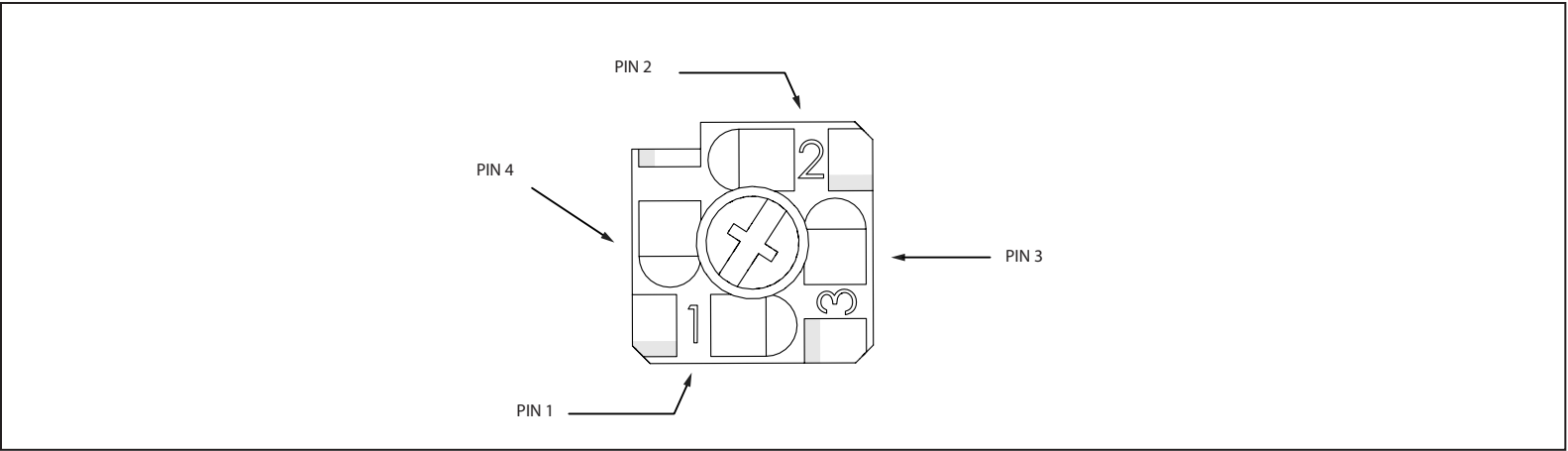
Use a 20-24 AWG stranded, 3 conductors (shielded or non-shielded) cable to wire between the transmitter and sensors.

| AWG wire size (solid) | Diameter (inches) | Resistance per 1000 ft (ohms) | Resistance per 1000 m (ohms) |
|-----------------------|-------------------|-------------------------------|------------------------------|
| 20 | 0.032 | 10.15 | 33.2 |
| 24 | 0.0201 | 25.67 | 84.2 |
| 22 | 0.0254 | 16.14 | 52.7 |

WIRING INFORMATION

| For PWGSXXXC00 Models | | | For PWGSXXXS03 Models | | |
|-----------------------|------------------|------------------|-----------------------|------------------|------------------|
| PIN # | Voltage Function | Current Function | Wire Color # | Voltage Function | Current Function |
| 1 | V+ | V+ | Red | V+ | V+ |
| 2 | V- (common) | V- | Black | Common | V- |
| 3 | Output | V- | White | Output | n/a |
| 4 | Ground | Ground | Drain | n/a | n/a |

Wiring Diagram for DIN C connector for models PWGSxxxxC00.



WIRING INFORMATION

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| PIN # | Voltage Function | Current Function | Wire Color # | Voltage Function | Current Function |
| 1 | V+ | V+ | Red | V+ | V+ |
| 2 | V- (common) | V- | Black | Common | V- |
| 3 | Output | V- | White | Output | n/a |
| 4 | Ground | Ground | Drain | n/a | n/a |

| SPECIFICATIONS | |
|--|---|
| MEASUREMENT RANGE | See Pressure range table below |
| ACCURACY @72°F ±2°F (22°C ±1°C) | ±0.50% span Includes Non-linearity, Hysteresis. Non repeatability, zero offset and span setting errors at reference temperature |
| STABILITY | Stability ≤ ±0.25% of span/year |
| OUTPUT | Current: 4-20mA (2-wire, loop powered) Voltage: 0-5Vdc, 0-10Vdc (3-wire) |
| POWER SUPPLY | 9-32VDC (4-20mA signal) max supply current @ 20mA 9-32VDC (0-5V signal) 14-32VDC (0-10V signal) max supply current @ 11mA |
| Insulation Withstand voltage | 500VAC |
| Circuit protection | Reverse polarity and miswire protection |
| Vibration | Random vibration (20g) RMS;20-2000Hz per IEC 60068-6-4 |
| RESPONSE TIME | 5 ms max |
| PROCESS PORT | 1/4" NPT Male |
| WETTED MATERIALS | Sensor diaphragm: 316L Stainless steel (for range up to max pressure range 3,000 psi) 304 Stainless steels (from 4000 psi max pressure up to 10,000psi) Pressure connection: 316L Stainless steel |
| ELECTRICAL TERMINATION | EN 175301-803 Form C (DIN 43650, Form C) , IP65, Nema 4X Shielded cable with PVC jacket and 24 AWG leads, IP67, Nema 6X |
| OPERATING CONDITIONS | -40 to 125°C (-40 to 257°F) |
| STORAGE CONDITIONS | -50 to 125°C (-58 to 257°F) |
| DEGREE OF PROTECTION | IP67/NEMA 6X for models with factory cable IP65/Nema 4X for model with conduit connectivity |
| CERTIFICATION | CE, ROHS |
| COUNTRY OF ORIGIN | Canada |

| PRESSURE RANGE TABLE | | |
|--------------------------|----------------|-----------------|
| Operating Pressure range | Proof Pressure | Burst Pressure |
| 15 psi/-14.7 psi | 2x | 50X |
| 30 psi/-14.7 psi | 2x | 50X |
| 60 psi/-14.7 psi | 2x | 50X |
| 100 psi/-14.7 psi | 2x | 50X |
| 150 psi/-14.7 psi | 2x | 50X |
| 15 psi | 2x | 50X |
| 25 psi | 2x | 50X |
| 50 psi | 2x | 50X |
| 100 psi | 2x | 50X |
| 150 psi | 2x | 50X |
| 200 psi | 2x | 50X |
| 250 psi | 2x | 50X |
| 300 psi | 2x | 50X |
| 500 psi | 2x | 50X |
| 1,000 psi | 2x | 50X |
| 3000 psi | 2x | 5x (See note 1) |
| 5,000 psi | 1.5X | 4X |
| 10,000 psi | 1.2X | 3X |

Note 1: Burst rating for 3000 psi with 316L SS is 3x only