PT41x4 Series

PT41X4 SERIES, INCLUDES MODELS
PT4184, PT4194, TPT4194

Description

The Dynisco PT41X4 Series transmitter is a +/- 0.5% sensor ideal for food or medical applications requiring simple installation, repeatability and reliability. The food grade oil fill material meets FDA requirements 21 CFR 178.3620, 21 CFR 172.878 and 21 CFR 573.680. The PT41X4 transmitters provide the industry standard 4 - 20 mA amplified signal designed to work with DCS and PLCs. The PT41X4 comes equipped with the NEW Auto-Zero functionality. Auto-Zero provides the user the ability to install the transmitter right out of the box with just using the zero push button after installation. Optional thermocouple or RTD configurations are available to provide melt temperature. The PT41X4 features a 1/2-20 UNF thread for simple and easy installation in standard transducer mounting holes.

Features

- Auto-Zero functionality
- Oil fill meets FDA requirements
- Accuracy better than +/- 0.5%
- DyMaxTM coated convoluted SST wetted parts
- 4 - 20 mA output
- No span or zero pots
- No calibration required
- Ideal for medical and food extrusion
- Repeatable, reliable pressure measurements
- Superior abrasion resistance
- Direct input to supervisory control systems
- Ready to use out of the box, just Auto-Zero
- SIL2 (Safety Integrity Level 2) Certified
### Performance Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>4 - 20 mA</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>14 - 36 Vdc</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+/- 0.5% FSO*</td>
</tr>
<tr>
<td>Repeatability</td>
<td>+/- 0.2% FSO</td>
</tr>
<tr>
<td>Configuration</td>
<td>Four-arm bonded foil Wheatstone bridge strain gage</td>
</tr>
<tr>
<td>Load Resistance</td>
<td>0 - 1,100 Ohms</td>
</tr>
<tr>
<td>Over Pressure</td>
<td>2 X FSO</td>
</tr>
<tr>
<td>Internal Shunt Calibration</td>
<td>(R-Cal): 80% FSO +/- 0.5%</td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>1000 megohms @ 50 Vdc</td>
</tr>
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</table>

### Temperature & Mechanical Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Diaphragm Temperature</td>
<td>527°F (275°C)</td>
</tr>
<tr>
<td>Zero Shift (due to temperature change)</td>
<td>36 psi/100°F Typical (65 psi/100°C)</td>
</tr>
<tr>
<td>Electronics Operating Temperature</td>
<td>-20°F to 185°F (-25°C to 85°C)</td>
</tr>
<tr>
<td>Zero Shift Due to Temperature Change</td>
<td>+/- 0.05% FS/°F max ( +/- 0.10% FS/°C max)</td>
</tr>
<tr>
<td>Mounting Torque</td>
<td>500 inch/lbs. maximum</td>
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</tbody>
</table>

**Standard Wetted Parts:** DyMax™ coated 15-5 PH SST

*The organic oil fill may be susceptible to gas generation at high temperatures for extended periods which may affect zero value (and therefore accuracy). Request the product manual for a full explanation and recommended procedure to eliminate any observed offset.

### Ordering Guide for PT41X4 Series

**XPT41X4 XX X/XX XXX SIL2**

- **Temperature**
  - blank = No temperature sensor
  - T = J type thermocouple*
  - *Not available on PT4184

- **Transducer Configuration**
  - 8 = Rigid stem, no flexible capillary
  - 9 = Rigid stem with flexible capillary

- **Pressure Range**
  - 1M = 1,000 psi
  - 1.5M = 1,500 psi
  - 3M = 3,000 psi
  - 5M = 5,000 psi
  - 7.5M = 7,500 psi
  - 10M = 10,000 psi

- **Option**
  - For additional options please consult factory

- **Stem Length**
  - blank = No Flex*
  - 18" = 18", 46 cm Flex
  - *Only available on PT4194

- **Snout Length**
  - 3" = 3", 7.6 cm
  - 6" = 6", 15 cm
  - 9" = 9", 23 cm
  - 12" = 12.5", 32 cm

*Standard mating connector Dynisco P/N 711600 or 6-pin mating connector cable assembly. Accuracy may be affected if non-standard configurations are used. For additional options please consult factory.