DYNISCO MODEL PT292

Button-Seal Replacement Pressure Transmitters for Process Control in Hazardous Areas

Description
The PT292 transmitters were designed for applications where a threaded stem configuration is required. Models are available with Factory Mutual (FM) explosion-proof or FM intrinsically safe (SIRA) approvals. Both models, PT292E and PT292S, are approved for Class I, Division I, Groups A, B, C and D. The 290 Series is the ideal choice for low pressure applications.

Features
- Accuracy of better than ±0.5% full scale
- 0 - 25 psi (0 - 2 bar) to 0 - 10,000 psi (0 - 700 bar)
- Replacement for traditional “button-seal” units
- New diaphragm design
- 4 to 20 mA loop powered output
- New side-mounted zero and span adjustments
- Various configurations
- New amplifier
- Heavy-duty welded electronics housing
- Thermocouple or RTD option available

Benefits
- Improves process optimization
- Proper range choice improves performance
- Installs in “button” seal holes
- Improved stability
- Industry standard
- Reduces set-up time
- Easy to install
- Superior resistance to electromagnetic noise
- Environmental protection
- Temperature measurement from same process connection

Specifications

Performance Characteristics
Ranges:
psi: 0 - 25, 0 - 50, 0 - 100, 0 - 250, 0 - 500, 0 - 750,
0 - 1,000, 0 - 1,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000
bar: 0 - 2, 0 - 3, 0 - 7, 0 - 15, 0 - 30, 0 - 50, 0 - 100, 0 - 200,
0 - 350, 0 - 500, 0 - 700
Accuracy: ±0.5% FSO
Repeatability: ±0.1% FSO
Maximum pressure: 2 x full range below 7,500 psi, 1.5 x full range for 10,000 psi
Material in contact with pressure media: DyMax™ coated 15-5 PH stainless steel
Weight: 2 lbs. (.9 kg)

Electrical Characteristics
Input voltage: 12 to 36 Vdc
Output: 4 to 20 mA (2-wire)
Maximum load resistance: 600 Ohms at 24 Vdc, 1,200 Ohms at 36 volts
Gain (span) adjustment range: ±25% FSO minimum, factory set to within ±0.5%
Load regulation: At operating voltage of 24 Vdc, current output will vary
<0.25% full scale for a change of 10 to 600 Ohms
Zero balance adjustment range: ±40% FSO up to 100 psi, ±25% FSO
at higher ranges (positive output indicated only), factory set to within ±0.5%

Temperature Characteristics
Transducer diaphragm:
Maximum transducer diaphragm temperature: 750°F (400°C)
Zero shift due to temperature change:
1.0 psi/100°F typical (from 75°F to 450°F)
2.0 psi/100°F typical (from 450°F to 600°F)
.37 bar/38°C typical (from 24°C to 232°C)
.14 bar/38°C typical (from 232°C to 315°C)
Electronics housing:
Operating temperature range: -20°F to +140°F (-28°C to +60°C)
Temperature effects over a compensated range of 0°F to 140°F
(-18°C to +60°C):
Zero: 0.01% full scale/F maximum (0.02% full scale/C maximum)
Span: 0.01% full scale/F maximum (0.02% full scale/C maximum)
**Ordering Guide**

<table>
<thead>
<tr>
<th>Model</th>
<th>Diaphragm Material/Coating</th>
<th>Approvals</th>
<th>Pressure Range</th>
<th>Snout</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT292</td>
<td>15 - 5 PH SST with DyMax™ coating</td>
<td>No approval</td>
<td>25 0 - 25 2B (0 - 2) psi</td>
<td>Specify length from 1.2 to 10.0 inches</td>
</tr>
<tr>
<td></td>
<td>B 15 - 5 PH SST with Borofuse Coating</td>
<td>E FM Explosion - proof</td>
<td>50 0 - 50 3B (0 - 3) psi</td>
<td>decimal inches (3.05 to 25.4 cm)</td>
</tr>
<tr>
<td></td>
<td>H Hastelloy</td>
<td>S FM Intrinsically safe</td>
<td>1C 0 - 100 78 (0 - 7) psi</td>
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<tr>
<td></td>
<td>I Inconel</td>
<td></td>
<td>2.5C 0 - 250 15B (0 - 15) psi</td>
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<tr>
<td></td>
<td>T 15 - 5 PH SST with Titanium Nitride Coating</td>
<td></td>
<td>5C 0 - 500 30B (0 - 30) psi</td>
<td></td>
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<tr>
<td></td>
<td>N 15 - 5 PH SST with Titanium Nitride Coating</td>
<td></td>
<td>7.5C 0 - 750 45B (0 - 45) psi</td>
<td></td>
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<tr>
<td></td>
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<td>10C 0 - 1,000 70B (0 - 70) psi</td>
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<td></td>
<td></td>
<td>1.5M 0 - 1,500 1CB (0 - 100) psi</td>
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<td>3M 0 - 3,000 2CB (0 - 200) psi</td>
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<td></td>
<td></td>
<td></td>
<td>5M 0 - 5,000 3.5CB (0 - 350) psi</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>7.5M 0 - 7,500 5CB (0 - 500) psi</td>
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<td></td>
<td></td>
<td></td>
<td>10M 0 - 10,000 7CB (0 - 700) psi</td>
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</table>

**Stem Lengths**

<table>
<thead>
<tr>
<th>Rigid</th>
<th>Flexible</th>
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<tbody>
<tr>
<td>Specify length from 0 to 36 inches (0 to 91.4 cm) and add “R” after number</td>
<td>30”</td>
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</tbody>
</table>

**Electrical Connection**

<table>
<thead>
<tr>
<th>Conduit Fitting with Cable</th>
<th>Connectors</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>42” standard</td>
<td>C6 = PT02A - 10 - 6P</td>
<td>Please consult factory.</td>
</tr>
<tr>
<td>Additional lengths available up to 999’</td>
<td>C6G = PT02H - 10 - 6P</td>
<td>Not available on explosion - proof approved models</td>
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<tr>
<td></td>
<td>C6H = PT1H - 10 - 6P</td>
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<td>C7D = DIN 7 pins</td>
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<td>C7T = TAJIMI</td>
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<td>C8 = PC02E - 12 - 8P</td>
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**Thermocouple/RTD**

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<tr>
<th>Thermocouple/RTD</th>
<th>Options</th>
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<tbody>
<tr>
<td></td>
<td>Please consult factory.</td>
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</tbody>
</table>

**Note:** Consult factory for available options and alternate full scale settings

**Ordering Examples:** PT292S - 1.5M - 3/60