FLIGHT HERITAGE FLOW-THRU PRESSURE TRANSDUCER

MODEL 7900

FEATURES:

- Lightweight, compact size <55 grams
- Flight qualified
- High accuracy, <0.1% FSO RSS
- “S” Class electronics available
- Full traceability
- Designed to meet *MIL-STD-810C & E shock and vibration requirements

APPLICATIONS:

- Miniature propulsion platforms
- Space vehicles
- Satellite propulsion
- Launch vehicles
- Life support systems

PRODUCT OVERVIEW:

Model 7900 series is a light weight flow-thru pressure transmitter designed for flight propulsion systems. The flow thru design is engineered to measure up to 0.1% of full scale pressure flow across the sensor and will stand up to the rigorous conditions associated with propulsion applications.

FIELD OPTIONS:

- mV/V, 0 to 5 Vdc, 0 to 10 Vdc (4-wire isolated output options) or 4-20 mA output
- Temperature (RTD) output
- Improved temperature compensation
- B+ and “S” Class electronics
- D38999/27YB98PN, D38999/27YA35PN electrical connectors
### GP:50 MODEL 7900

#### DIMENSIONAL DRAWING

All dimensions are in inches (mm)

---

### ELECTRICAL

<table>
<thead>
<tr>
<th>PIN</th>
<th>4-WIRE VDC &amp; mV/V ISOLATED</th>
<th>4-WIRE VDC NON-ISOLATED</th>
<th>3-WIRE VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/1</td>
<td>+EXC</td>
<td>+EXC</td>
<td>+EXC</td>
</tr>
<tr>
<td>B/2</td>
<td>+SIG</td>
<td>+SIG</td>
<td>+SIG</td>
</tr>
<tr>
<td>C/3</td>
<td>-SIG</td>
<td>-SIG</td>
<td>N/C</td>
</tr>
<tr>
<td>D/4</td>
<td>-EXC</td>
<td>-EXC</td>
<td>-EXC/SIG</td>
</tr>
<tr>
<td>F/6</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
</tr>
</tbody>
</table>

*Commons jumpered

---

### MATERIALS OF CONSTRUCTION

- Wetted Parts: 316 stainless steel
- Housing: 316L stainless steel

---

### ACCURACY

- Static Accuracy (RSS): \(-0.3\% FSO, \pm 0.1\% FSO\) optional
- Non-repeatability: \(\leq 0.1\% FSO\)
- Hysteresis: \(\leq 0.2\% FSO\)
- Non-linearity: \(\leq 0.2\% FSO\)
- Total Error Band: \(\pm 0.1\% FSO\)

*Options may affect Mil-specifications. Please consult factory for your specific needs.

---

### MECHANICAL

- Process connection: Welded 1/4" ID stainless steel tube, flow through, in-line design (other ports available)
- Proof Pressure: 1.5X FSO
- Burst Pressure: 2.0X FSO
- Weight: <55 grams

---

### PRESSURE RANGES

- 0 to 50 thru 0 to 5,000 PSIA, PSIG or PSIGS (3.4 thru 345 BAR)

---

### THERMAL SPECIFICATIONS

- Compensated: -20 °F to +120 °F (\(-29 °C \text{ to } +49 °C\)) expanded range available
- Operating: -100 °F to +250 °F (\(-73 °C \text{ to } +121 °C\))
- Effect on Zero/Span: \(\pm 1.0\% FSO/100 °F\)

---

### OPTIONAL

- NIST Traceability/Calibration: ANSI-Z540-1
- Workmanship: J-001/NASA 8739.3 standard

---

Standard configurations shown. Please consult factory for other options.

---

All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact GP:50 for assistance with your application.

© 2014 GP:50 NY Ltd. | 2770 Long Rd, Grand Island, NY 14072 USA

Tel: +1.716.773.9300 Fax: +1.716.773.5019 Email: sales@gp50.com Web: www.gp50.com