



SPACE HERITAGE FLOW-THRU PRESSURE TRANSDUCER

MODEL 7901

FEATURES:

- "S" Class electronics option
- Lightweight, compact size <55 grams
- Flight qualified
- High accuracy, up to $<\pm 0.1\%$ FSO RSS
- Full traceability
- Rad-hard 100 KRAD optional
- Flow-thru design
- Isolated outputs for EMI/RFI
- 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 7901 series is a light weight, space heritage 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 across the sensor and will stand up to the rigorous conditions associated with space propulsion.

FIELD OPTIONS:

- "S" Class electronics option
- 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 (see model 7901)
- D38999/27YB98PN, D38999/27YA35PN electrical connectors

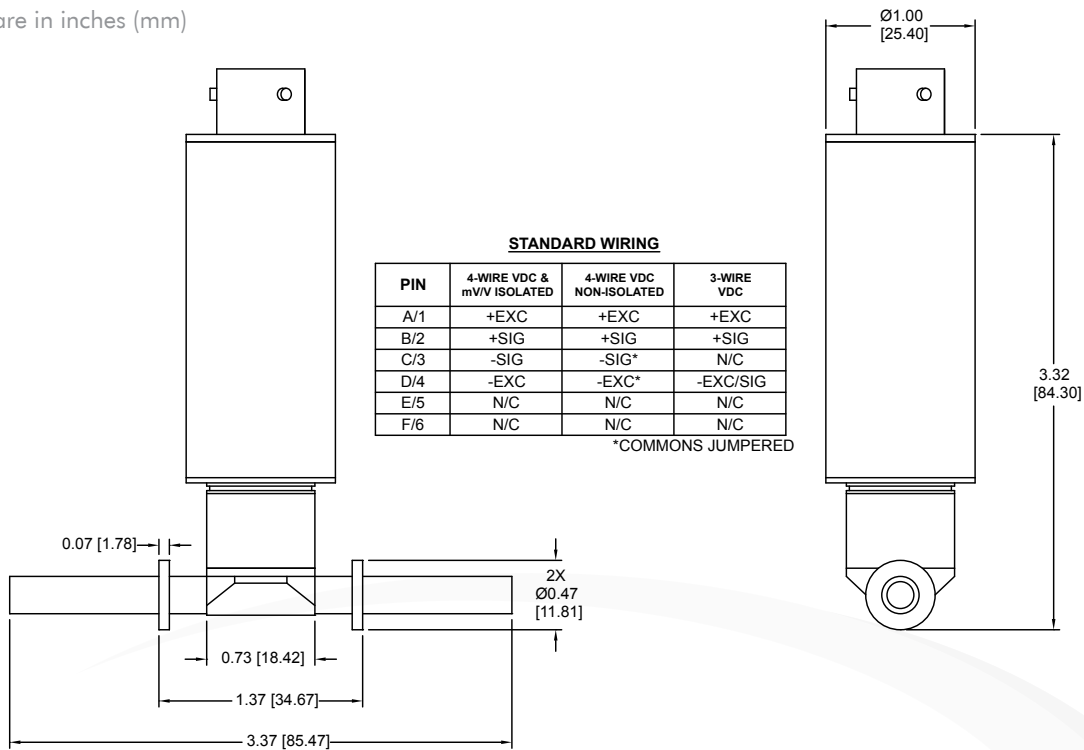


Model 7901
Space Heritage Flow-thru
Pressure Transducer

GP:50 MODEL 7901

DIMENSIONAL DRAWING

All dimensions are in inches (mm)



REFERENCE SPECIFICATIONS

ELECTRICAL

- **Output Signal:** 3 mV/V, 0 to 5 Vdc and 0 to 10 Vdc isolated and non isolated
- **Supply Voltage:** 5 Vdc, 12 Vdc, and 18 to 36 Vdc isolated
- **Response Time:** <4 ms
- **Connection:** MIL-PTIH-10-6 standard, other options available
- **Circuit Protection:** Designed to meet *MIL-STD-461/EMI/RFI Reverse polarity protection (some options may affect rating)

MATERIALS OF CONSTRUCTION

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

ACCURACY

Static Accuracy (RSS): $\pm 0.3\%$ FSO, $\pm 0.1\%$ FSO optional
Non-repeatability: $< \pm 0.1\%$ FSO
Hysteresis: $< \pm 0.2\%$ FSO
Non-linearity: $< \pm 0.2\%$ FSO
Total Error Band: $\pm 1.0\%$ 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 PSISG (3.4 thru 345 BAR)

THERMAL SPECIFICATIONS

- **Compensated:** -20 °F to +120 °F (-29 °C to +49 °C) expanded range available
- **Operating:** -100 °F to +250 °F (-73 °C 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
- Quality System: ISO 9001:2008

**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.