MODEL 7100

FEATURES:

- Aircraft and space flight heritage
- Compact, lightweight stainless steel design
- High accuracies up to ±0.1% FSO (BFSL)
- Wide operating temperature range from -70 °F to +275 °F (-56 °C to +135 °C)
- Designed to meet MIL-STD-810F shock and vibration specification*
- J-001/NASA 8739.3 workmanship standards for soldered electrical connections
- Secondary containment rated to 4,500 PSI (310 BAR)

APPLICATIONS:

- Commercial and defense satellites
- Launch vehicles
- Unmanned aerial vehicles
- Military and civilian aircraft
- Ground support and engine test stands

PRODUCT OVERVIEW:

Model 7100 flight-heritage, low level pressure transducer from GP:50 is designed to provide high-accuracy measurements of up to ±0.1% FSO. Its flight heritage, spanning 25 years, makes it ideal for use within demanding aerospace and defense applications, including those in which higher shock and vibration levels may be present. Its compact and lightweight design facilitates ease of installation within space constrained environments.

FIELD OPTIONS:

- “B+ and S Class” amplified electronics available
- Temperature output
- Inconel, Hastelloy, and Monel wetted parts
- Wide selection of pressure ports and electrical connections

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A5SL-048 REV-E
**ELECTRICAL**

- **Output Signal**: Non-amplified 1-3 mV/V (pressure dependent) 5 mV/V (10mV/V and non-standard outputs available)
- **Supply Voltage**: 3.5 to 15 Vdc
- **Bridge Resistance**: 5K Ω standard, 350 Ω optional
- **Response Time**: 3-5 kHz typical
- **Connection**: PTIH-10-6P standard, options available

**ACCURACY (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)**

- **Static Accuracy (RSS)**: < ±0.3% FSO, ±0.10% FSO available (Linearity calculated using BFSL)
- **Zero/span balance**: ±1.0%, 0.5% FSO option available

**THERMAL SPECIFICATION**

- **Compensated**: 0 °F to +180 °F (-18 °C to +82 °C) = ±1.0% FSO/100 °F
- **Expanded**: -40 °F to 250 °F (-40 °C to 121 °C) = ±2.0% FSO/100 °F
- **Optional**: -65 °F to +250 °F (-54 °C to +121 °C) = ±2.5% FSO/100 °F
- **Operating**: -70 °F to +275 °F (-56 °C to +135°C)
- **NIST Traceability/Calibration**: ANSI-Z540-1
- **Workmanship**: J-001/NASA 8739.3 standard
- **Quality System**: ISO 9001:2008

**PRESSURE RANGES**

- 0 to 2 thru 0 to 15K PSIA, PSIG, PSIV, PSISG options (0.14 thru 1,034 BAR)
- (Ranges below 1000 PSI require oil-filled sensor, consult factory)

**MATERIALS OF CONSTRUCTION**

- **Wetted Parts**: 17-4 PH, or 316L pressure range dependent (Inconel, Hastelloy and Monel available)
- **Housing**: 316L stainless steel

*Some options may invalidate Mil-specifications. Please consult factory for your specific needs.

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**REFERENCE SPECIFICATIONS**

**MECHANICAL**

- **Process connection**: AS4395E04 standard, optional pressure ports available
- **Proof Pressure**: 1.5X FSO
- **Burst Pressure**: 3.0X FSO
- **Secondary containment**: Rated at 4,500 PSI (310 BAR)
- **Random Vibration**: >25 G RMS (20 Hz to 2,000 Hz) (options available)
- **Pyroshock**: 100 G half-sine shock pulse over 11msec (options available)
- **Constant Acceleration**: 5 G’s for 30 minutes
- **Approximate Weight**: 4 oz (0.1 kg) some options may affect weight

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.