



DUAL CRYOGENIC PRESSURE & TEMPERATURE TRANSDUCER

MODEL 7730

FEATURES:

- Cryogenic service down to -320°F (-196°C)
- Isolated electronics provide 4-20 mA, 0-5 Vdc or digital outputs
- Remote electronics via stainless steel armored cable
- High accuracy, 0.3% RSS standard (0.1% available)
- Lightweight, < 10 oz. (0.2 kg)
- Hydrogen and LOX compatibility
- Designed to meet *MIL-STD-810 vibration and shock standards
- Platinum RTD

APPLICATIONS:

- Liquefied fuel pressures
- Manifolds, propulsion systems
- Military and defense programs
- Liquid gas custody transfer

PRODUCT OVERVIEW:

GP:50's 7730 cryogenic series provides pressure and temperature measurement in one device down to -320°F (-196°C). The remote mounted electronics offers a high level output of 4-20 mA, 0 to 5 Vdc or various digital protocols at high accuracies. 100 or 1,000 Ω platinum RTD is available as well as dual analog outputs.

FIELD OPTIONS:

- 0 to 5 Vdc, 0 to 10 Vdc or 4-20 mA output
- RS232, RS485 and Can outputs
- Custom probe lengths
- Zero and span adjustments
- Optional electrical connections
- High-temp version to $+350^{\circ}\text{F}$ ($+177^{\circ}\text{C}$) (see Model 7780)

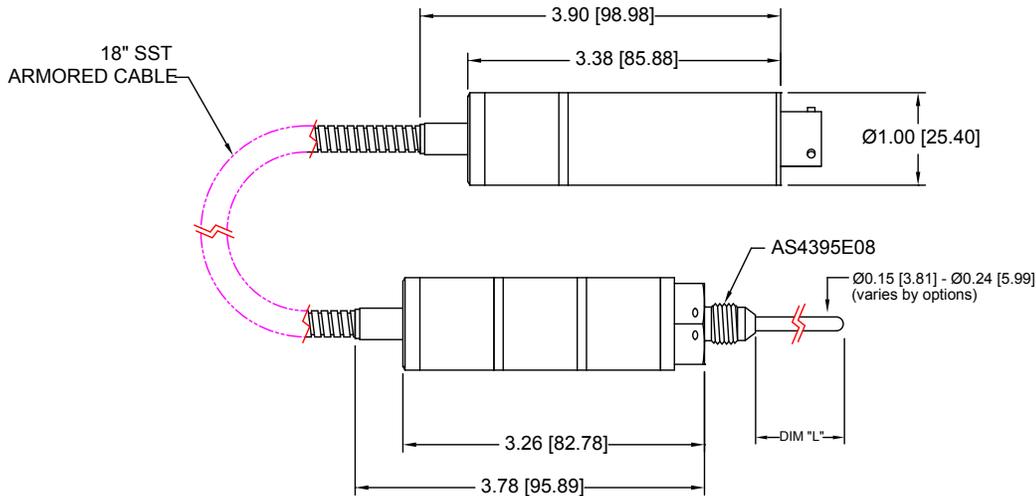


Model 7730
Dual Cryogenic Pressure &
Temperature Transducer

GP:50 MODEL 7730

DIMENSIONAL DRAWING

All dimensions are in inches (mm)



STANDARD WIRING

PIN	VDC	4-20mA
A/1	+EXC	+EXC/SIG
B/2	+SIG	N/C
C/3	-SIG	N/C
D/4	-EXC	-EXC/SIG
E/5	RTD	RTD
F/6	RTD	RTD

L = 0.75 TO 7.00 INCH PROBE LENGTH

REFERENCE SPECIFICATIONS

ELECTRICAL
<ul style="list-style-type: none"> • Output Signal: 0 to 5 Vdc, 0 to 10 Vdc (3 and 4 wire isolated or non-isolated) and 4-20 mA • Supply Voltage: 18 to 36 Vdc • Temperature Output: 100 Ω 2 wire platinum RTD standard, 1,000 Ω 2 wire platinum RTD optional • Response Time: Pressure: <4 ms Temperature: <2 seconds • Connection: MIL PTIH-10-6P standard, options available • Circuit Protection: Designed to meet *MIL-STD-461/462 EMI/RFI, some options will affect EMI/RFI rating
MATERIALS OF CONSTRUCTION
<ul style="list-style-type: none"> • Wetted Parts: 17-4 stainless steel (Inconel, Hastelloy and Monel available) • Housing: 316 stainless steel Tubing 18" Flexible metal hose
ACCURACY (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)
<ul style="list-style-type: none"> • Static Accuracy: Pressure (RSS): $\leq \pm 0.3$ FSO, ± 0.10 FSO available Temperature: 3% FSO, 1% optional • Non-repeatability: $\leq \pm 0.1$ FSO • Hysteresis: $\leq \pm 0.2$ FSO • Non-linearity: $\leq \pm 0.2$ FSO

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

**Standard configurations shown.
Please consult factory for other options.**

MECHANICAL
<ul style="list-style-type: none"> • Process connection: AS4395E08 pressure port • Probe length (temp): 0.75" to 7" available • Proof Pressure: 1.5X pressure range • Burst Pressure: 2X pressure range
PRESSURE RANGES
<ul style="list-style-type: none"> • 0 to 15 thru 0 to 15K PSIA, PSIG or PSISG options (1 thru 1,034 BAR)
TEMPERATURE RANGES
<ul style="list-style-type: none"> • -320 °F to +70 °F (-200 °C to +20 °C)
THERMAL SPECIFICATIONS
<ul style="list-style-type: none"> • Compensated: -320 °F to +70 °F (-196 °C to +21.1 °C) • Operating Range: (Ambient) -40 °F to +185 °F (-40 °C to +85 °C) (Process) -320 °F to +265 °F (-196 °C to +129 °C) • Effect on Zero/Span: $\pm 1.0\%$ FSO/100 °F for ranges ≥ 1K PSI (69 BAR) $\pm 2.0\%$ FSO/100 °F for ranges <1K PSI (69 BAR)
OPTIONAL
<ul style="list-style-type: none"> • NIST Traceability/Calibration: ANSI-Z540-1 • Workmanship: J-001/NASA 8739.3 standard • Quality System: ISO 9001:2008

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.