



CRYOGENIC TEMPERATURE TRANSDUCER

MODEL 7710

FEATURES:

- Cryogenic service down to -320 °F (-196 °C)
- Accuracy of $\pm 1\%$ FSO
- Lightweight, < 10 oz. (0.2 kg)
- Hydrogen and LOX compatibility
- Remote electronics provide high-level output
- Rugged all-stainless steel design

APPLICATIONS:

- Aerospace ground support
- Rocket propulsion systems
- Military and defense
- Fuel test stands
- Cryogenic custody transfer

PRODUCT OVERVIEW:

The Model 7710 from GP:50 is a cryogenic temperature transducer, designed to provide high-reliability low-temperature measurements to -320°F (-196 °C) within a rugged, all-stainless steel package. Remotely mounted electronics provide a high-level signal output of either 4-20 mA; 0 to 5 Vdc; or 0 to 10 Vdc, as well as choice of RS232, RS485 or CAN protocol, for improved cryogenic measurement accuracy and higher resolution. Stainless steel armor jacketed cabling provides added protection from extreme environmental conditions.

FIELD OPTIONS:

- Custom temperature probe lengths
- 0 to 5 Vdc, 0 to 10 Vdc or 4-20 mA output
- RS232, RS485 or CAN protocol
- Cleaned for oxygen service
- Alternate remote cable lengths
- Designed to meet *MIL-STD-810F
- Hastelloy, Monel or Inconel wetted parts
- ISO Class 5 cleanroom compliance

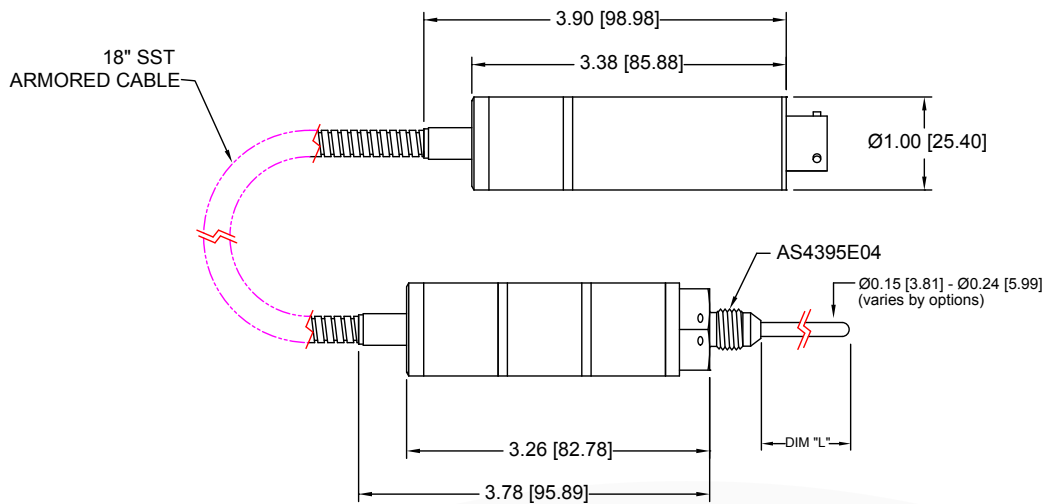


Model 7710
Cryogenic Temperature Transducer

GP:50 MODEL 7710

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	N/C	N/C
F/6	N/C	N/C

L = 0.50 TO 7.00 INCH PROBE LENGTH

REFERENCE SPECIFICATIONS

<p>ELECTRICAL</p> <ul style="list-style-type: none"> • Output Signal: 0 to 5 Vdc, 0 to 10 Vdc (isolated or non-isolated) or 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: <2 sec • 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 	<p>MECHANICAL</p> <ul style="list-style-type: none"> • Process Connection: AS4395E04 pressure port • O-Ring: Buna-N (Nitrile) is standard. For expanded temp ranges -65 °F to 350 °F Fluorosilicone is standard. • Probe Length: 1.55" (custom lengths available)
<p>MATERIALS OF CONSTRUCTION</p> <ul style="list-style-type: none"> • Probe: 17-4 stainless steel (Inconel, Hastelloy and Monel optional) • Housing: 316 stainless steel Tubing 18" Flexible metal hose 	<p>TEMPERATURE RANGES</p> <p>-320 °F to +70 °F (-200 °C to +20 °C)</p>
<p>ACCURACY</p> <p>Static Accuracy: ±3% FSO, ±1% optional</p>	<p>SYSTEM PRESSURE</p> <ul style="list-style-type: none"> • Designed for up to 2000 PSI (138 BAR), higher system pressures also available
	<p>OPTIONAL</p> <ul style="list-style-type: none"> • NIST Traceability/Calibration: ANSI-Z540-1 • Workmanship: J-001/NASA 8739.3 standard • Quality System: ISO 9001:2008

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

**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.

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