



TEMPERATURE TRANSDUCER

MODEL 7800



Model 7800
Temperature Transducer

FEATURES:

- High accuracy temperature output up to 1% FSO
- -100 °F to +250 °F (-73 °C to +120 °C) standard medium
- Lightweight, 8 oz (0.2 kg)
- Hydrogen and LOX compatibility
- Rated to 2000 PSI (138 BAR) process pressure
- Up to 0.5 second temperature response time
- 100 Ω platinum RTD

APPLICATIONS:

- Propulsion systems
- Military and defense applications
- Space flight vehicles
- Military vehicles

PRODUCT OVERVIEW:

GP:50's 7800 aerospace grade temperature transducer provides reliable temperature measurement from -100 °F to +250 °F (-73 °C to +121 °C) while withstanding the harsh conditions associated with space exploration. The compact size and rugged design are an excellent choice for on-board space flight or military vehicle applications.

FIELD OPTIONS:

- Custom temperature probe lengths
- 0 to 5 Vdc, 0 to 10 Vdc (4-wire isolated output options) or 4-20 mA output
- Oxygen service options
- Remote electronics for 500 °F operation (see 7770)
- 1000 Ω 2 wire platinum RTD

GP:50 MODEL 7800

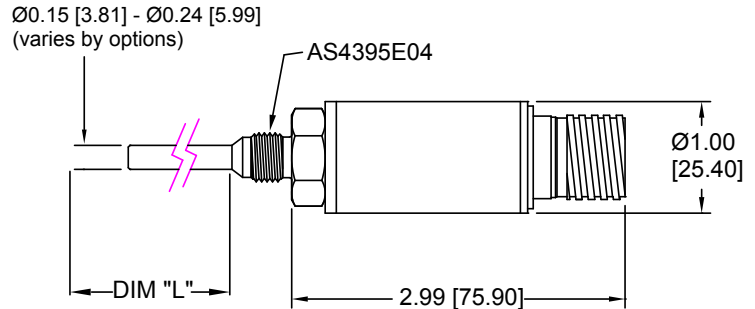
DIMENSIONAL DRAWING

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

ELECTRICAL	MECHANICAL
<ul style="list-style-type: none"> • Output Signal: 0 to 5 Vdc, 0 to 10 Vdc (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: <2 sec, 0.5 sec optional • Circuit Protection: Designed to meet *MIL-STD-461/462 EMI/RFI, some options may affect EMI/RFI rating • Connection: MIL PTIH-10-6P standard, options available 	<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" From port end (custom lengths available)
MATERIALS OF CONSTRUCTION	TEMPERATURE RANGES
<ul style="list-style-type: none"> • Probe: 17-4 stainless steel (Inconel, Hastelloy and Monel available) • Housing: 316 stainless steel 	-100 °F to +250 °F (-73 °C to +155 °C)
ACCURACY	SYSTEM PRESSURE
<ul style="list-style-type: none"> • Static Accuracy: $\pm 3\%$ FSO, $\pm 1\%$ optional 	Up to 2000 PSI (138 BAR) Optional 10k PSI available
	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

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

