

DUAL - PRESSURE & TEMPERATURE TRANSDUCER



Model 7880

Dual-Pressure & Temperature Transducer

MODEL 7880

FEATURES:

- Dual pressure and temperature outputs
- -65 °F to +250 °F (-59 °C to +120 °C) operating temperature
- Lightweight, 8 oz (0.2 kg)
- Hydrogen and LOX compatible designs
- Designed to meet shock and vibration per MIL-STD-810
- 100 or 1000 Ω platinum RTD

APPLICATIONS:

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

PRODUCT OVERVIEW:

GP:50's 7880 aerospace grade pressure and temperature transducer provides reliable measurements from -65 °F to +250 °F (-59 °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 where space and weight constraints are critical.

FIELD OPTIONS:

- Custom temperature probe lengths
- 0 to 5 Vdc, 0 to 10 Vdc (4-wire isolated output options) or 4-20 mA output
- 100 Ω platinum RTD
- 1000 Ω platinum RTD
- 0-15 to 0-15K PSI, PSIA, PSIS pressure ranges

GP:50 MODEL 7880

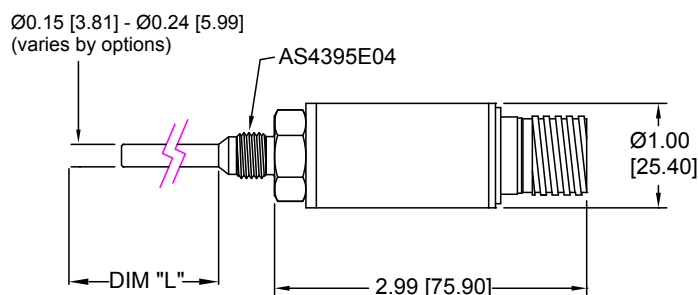
DIMENSIONAL DRAWING

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 = 0.50 TO 7.00 INCH PROBE LENGTH



REFERENCE SPECIFICATIONS

ELECTRICAL	MECHANICAL
<ul style="list-style-type: none"> • Output Signal Pressure: 0 to 5 Vdc, 0 to 10 Vdc or 4-20 mA (isolated or non-isolated options available) • Supply Voltage: 10 to 36 Vdc • Temperature Output: 100 Ω 2 wire platinum RTD standard (1,000 Ω platinum RTD optional, 3 or 4 wire also) • Response Time: Pressure: <4 ms Temperature: <2 sec • Connection: PTIH-10-6P std • Circuit Protection: meets MIL-STD-461/462 EMI/RFI, some options may affect ratings 	<ul style="list-style-type: none"> • Process connection: per AS4395E04 • Probe Length: 1" from end of port standard (Optional lengths and ports available)
MATERIALS OF CONSTRUCTION	PRESSURE RANGES
<ul style="list-style-type: none"> • Probe: 17-4 stainless steel (Inconel, Hastelloy and Monel available) • Housing: 316 stainless steel 	Ranges 15 thru 15K PSIA, PSIG or PSISG options (1 thru 1,034 BAR)
ACCURACY	OPERATING / ENVIRONMENT TEMPERATURE:
<ul style="list-style-type: none"> • Static Accuracy: Pressure: < ± 0.3 FSO (RSS), (± 0.10 FSO optional) Temperature: $\pm 3\%$ FSO ($\pm 1\%$ optional) Repeatability: < ± 0.1 FSO Hysteresis: < ± 0.2 FSO Non-linearity: < ± 0.2 FSO 	65°F to +250 °F (-58 °C to +155 °C)
	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

**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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