



HIGH TEMPERATURE - PRESSURE & TEMPERATURE TRANSDUCER

MODEL 7790



Model 7790
High Temperature-Pressure
& Temperature Transducer

FEATURES:

- +70 °F to +350 °F (+20 °C to +177 °C) Process temperature
- High accuracy temperature output to $\pm 1\%$ FSO
- High accuracy pressure output to $\pm 0.1\%$ FSO
- Lightweight, 8 oz (0.2 kg)
- Hydrogen and LOX compatibility
- Designed to meet shock and vibration per MIL-STD-810
- Up to 0.5 second temperature response time

APPLICATIONS:

- High temperature gas measurement
- Propulsion Systems
- Military and Defense Applications

PRODUCT OVERVIEW:

GP:50's 7790 High Temperature series transducer provides pressure and temperature measurement up to +350 °F (+177 °C). The remote electronics provides a high level output of 4-20 mA or 0 to 5 Vdc while reducing the overall footprint by integrating pressure and temperature measurement in one device.

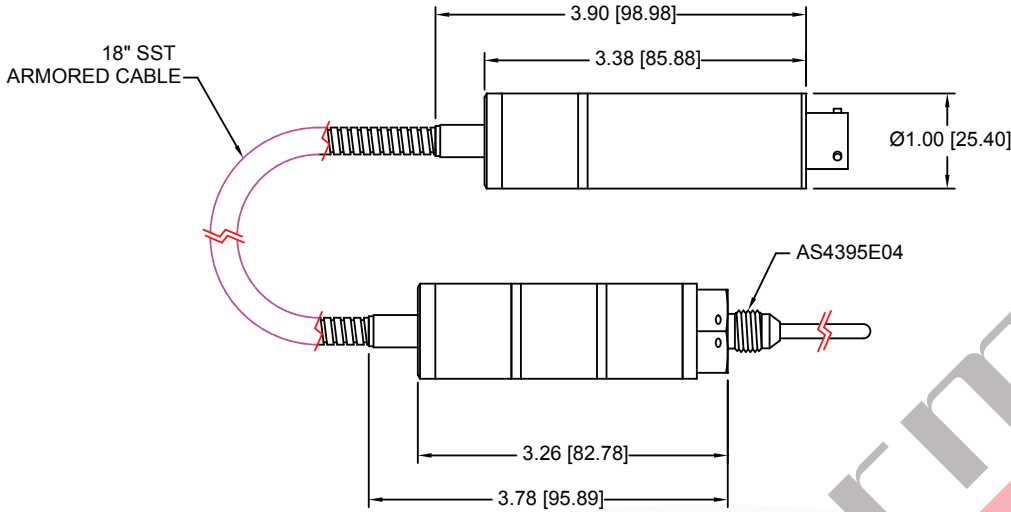
FIELD OPTIONS:

- Custom temperature probe lengths
- 0 to 5 Vdc, 0 to 10 Vdc (4-wire isolated output options) or 4-20 mA output
- Alternate remote cable lengths
- Cryogenic version rated to -320 °F (-196 °C) see Model 7730

GP:50 MODEL 7790

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

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: Pressure: <4 ms Temperature: <2 sec (0.5 sec optional) Connection: MIL PTIH-10-6P, D38999 series III optional Circuit Protection: meets MIL-STD-461/462 EMI/RFI, some options may affect EMI/RFI rating 	<ul style="list-style-type: none"> Process Connection: AS4395E04 pressure port Probe Length: 1.55" (custom lengths available)
	PRESSURE RANGES
	15 thru 15K PSIA, PSIG or PSISG options (1 thru 1,034 BAR)
	TEMPERATURE RANGES
	+70 °F to +350 °F (+20 °C to +177 °C)
	OPERATING / ENVIRONMENT TEMPERATURE:
	+70 °F to +350 °F (+20 °C to +177 °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
MATERIALS OF CONSTRUCTION	
<ul style="list-style-type: none"> Probe: 17-4 stainless steel (Inconel, Hastelloy and Monel available) Housing: 316 stainless steel Flex Tubing 18" Armored Capillary Tube 	
ACCURACY	
Static Accuracy: Pressure (RSS): ± 0.3 FSO, $\pm 0.10</math> FSO available Temperature: \pm 3\% FSO, \pm 1\% optional Non-repeatability: ± 0.1 FSO Hysteresis: ± 0.2 FSO Non-linearity: ± 0.2 FSO $	

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.