

GP:50 Aerospace Heritage products can be designed to meet various MIL Specifications. Consult factory.

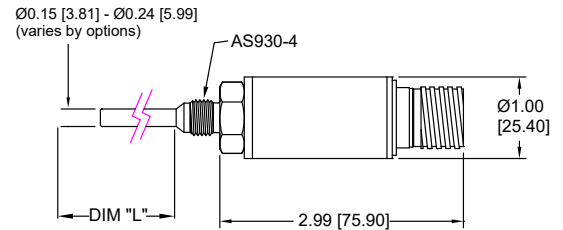
## MODEL 7800 TEMPERATURE TRANSDUCER



### 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



**REF DIMENSIONS ONLY.  
CONSULT FACTORY FOR ACTUAL DIMENSIONS.**

### PRODUCT OVERVIEW:

GP:50's 7800 series temperature transducer provides reliable temperature measurement from -100 °F to +500 °F (-73 °C to +260 °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.

### FEATURES:

- Accuracy to  $< \pm 3.0\%$  FSO,  $\pm 1.0\%$  FSO optional
- Ranges from -100 °F to +500 °F (-73 °C to +260 °C)
- Lightweight, 8 oz (0.2 kg)
- Rated to 2000 PSI (138 BAR) process pressure
- 2 second temperature response time
- Analog outputs

### APPLICATIONS:

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

### OPTIONS:

- Custom temperature probe lengths
- Pressure ratings to 10,000 PSI
- 4-20 mA, 0 to 5 Vdc, 0 to 10 Vdc output (4-wire isolated options)
- Hydrogen and LOX compatibility
- Remote electronics for 500 °F operation (see 7770)
- 100 or 1000  $\Omega$  2 or 3 wire platinum RTD
- Various MIL-SPECS available. Consult factory.

# GP:50 MODEL 7800

## REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	4-20 mA 0 to 5 Vdc or 0 to 10 Vdc (isolated options) 100 Ohm 2 wire Platinum RTD 0.00385 Alpha $\Omega/\Omega/\text{deg C}$ , Class B 1000 Ohm 2 wire Platinum RTD 0.00385 Alpha $\Omega/\Omega/\text{deg C}$ , Class B (3 & 4 wire options)
Excitation Voltage:	9 to 32 Vdc (0-5 Vdc output, 4-20 mA) 14-32 Vdc (0-10 Vdc output)
Response Time:	<2 sec

MATERIALS OF CONSTRUCTION	
Probe:	17-4 PH (Inconel, Monel or Nitronic 50 available) (Process pressure may affect material)
Housing:	316 Stainless Steel
O-Ring:	Buna-N (Nitrile) is standard (Consult Factory for other materials)

ACCURACY (BFSL)	
Standard:	< $\pm 3.0\%$ FSO, $\pm 1.0\%$ FSO optional
Zero/Span Balance:	$\pm 1\%$ FSO Each

Calibration:	NIST Traceable Cert
Workmanship:	IPC-A-610 Soldering
Quality System:	ISO 9100

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

MECHANICAL	
Process Connection:	AS930-04
Electrical Connection:	MIL PTIH-10-6P standard, options available
Probe Length:	1.55" (other lengths available)
Probe Pressure Rating:	2,000 PSI (Ranges to 10,000 PSI available)
Approximate Weight:	10 oz (0.2 kg) some options may affect weight

TEMPERATURE RANGES
From -100 °F to +500 °F (-73 °C to +260 °C)

SYSTEM PRESSURE
Up to 2000 PSI (138 BAR), Optional 10K PSI (689 BAR)

