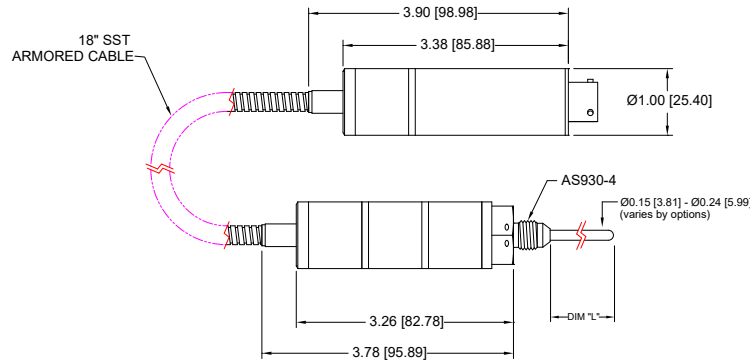


## MODEL 7790 HIGH TEMPERATURE - PRESSURE & TEMPERATURE TRANSDUCER



### 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 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.

### FEATURES:

- Process temperature rated to +350 °F (+177 °C)
- Remote electronics via stainless steel flex cable
- 4-20 mA Output
- Standard accuracy to ±0.2% FSO BFSL

### APPLICATIONS:

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

### OPTIONS:

- Digital outputs: CANbus, RS485 or USB
- 0 to 5 Vdc or 0 to 10 Vdc output (4-wire isolated option)
- Remote electronic cable lengths to 36"
- Zero and span adjustments
- Hydrogen or LOX compatibility options
- Cryogenic service down to -320 °F (-196 °C) (See GP:50 Model 7720)
- Various MIL-SPECS available. Consult factory.

# GP:50 MODEL 7790

## REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	Pressure: 4-20 mA 0 to 5 Vdc, 0 to 10 Vdc (isolated options) CanBUS or RS485 Options  Temperature: 4-20 mA 0 to 5 Vdc, 0 to 10 Vdc (isolated options) CanBUS or RS485 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
Excitation Voltage:	10 to 36 Vdc (Options may affect this)
Response Time:	Pressure: <4 ms Temperature: <2 Seconds

MATERIALS OF CONSTRUCTION	
Probe:	17-4 PH (Inconel, Monel or Nitronic 50 available)
Housing:	316 Stainless Steel
O-Ring:	Flourosilicone is standard
Flex Tubing:	18" Armored flex (24" & 36" Options)

ACCURACY (RSS): Hysteresis, Non-Linearity & Repeatability @ +70 °F	
Static Accuracy (RSS):	$\leq \pm 0.3\%$ FSO Temperature: $\pm 3.0\%$ FSO, $\pm 1.0\%$ FSO optional
Non-linearity:	$\leq \pm 0.20\%$ FSO (Typ)
Hysteresis:	$\leq \pm 0.1\%$ FSO (Typ)
Repeatability:	$\leq \pm 0.1\%$ FSO (Typ)
Zero Balance:	$\pm 1.0\%$ FSO
Span Balance:	$\pm 1.0\%$ FSO

(BFSL method used. Improved options available.)

Calibration:	NIST Traceable Cert
Workmanship:	IPC-A-610 Soldering
Quality System:	ISO 9001

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

MECHANICAL	
Process Connection:	AS930-4 pressure port
Electrical Connection:	D38999 standard, options available
Probe Length:	1" From port end (optional lengths and ports available)
Proof Pressure:	1.5X or 22.5K Max whichever is less (May affect Probe size)
Burst Pressure:	2X-5X, range dependent
Approximate Weight:	8 oz (0.2 kg)

PRESSURE RANGES	
0 to 300 thru 0 to 15K PSIA, PSIG, or PSISG options (20 thru 1,034 BAR)	

PRESSURE TRANSMITTER THERMAL SPECIFICATIONS	
Operating Range:	-65°F to +350 °F (-54 °C to +177 °C)
Operating Ambient:	-65°F to +250 °F (-54 °C to +121 °C)
Compensated Range:	+70 °F to +350 °F (+21.1 °C to +177 °C)
Effect on Zero & Span:	$\pm 1.0\%$ FSO/100 °F (Improved specifications available)

