



Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

Tel. (716) 773-9300 • Fax (716) 773-5019

sales@gp50.com • www.gp50.com

DUAL HIGH TEMPERATURE PRESSURE & TEMPERATURE TRANSDUCER

Model 7790

Designed for the tough challenges and environmental rigors of space propulsion and aviation pressure testing.

FEATURES:

- High accuracy, 0.3% RSS standard (0.1% available) pressure
- High accuracy, 3% FSO standard (1% available) temperature
- +70°F to +400°F standard medium
- Lightweight, 8 ounces
- Hydrogen and LOX compatibility
- Custom probe lengths, 1.55" standard
- Designed to meet vibration and shock per MIL-STD-810
- 2 second time response for temperature, 0.5 sec optional
- 100 ohm platinum RTD standard

Typical Applications:

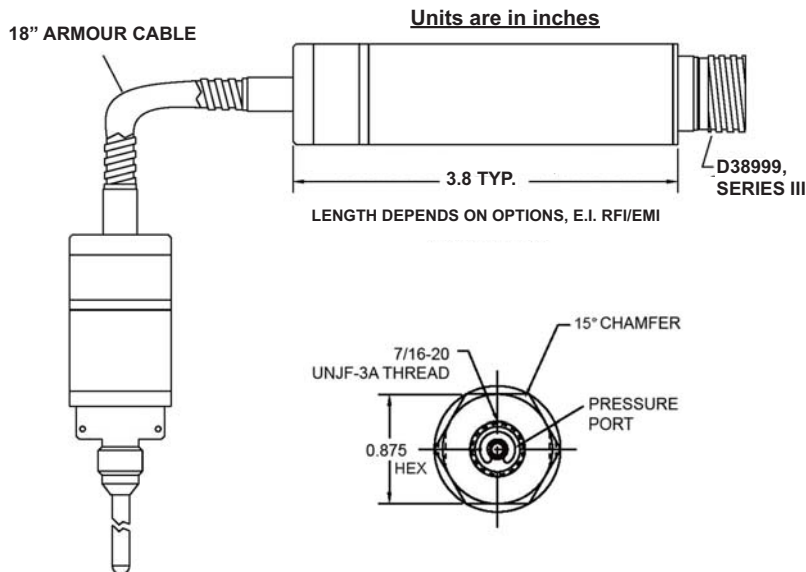
- High Vibration Environments
- Extreme or Harsh Environments
- Manifolds, Propulsion Systems
- Military and Defense Applications



All GP:50 Aerospace pressure transducers are manufactured and tested to the following MIL-STD and MIL-Spec standards to insure the highest quality assurance:

- NIST Traceability and Calibration..... MIL-STD-45662A
- Workmanship J-001 / NASA 8739.3 standards
- Quality System ISO 9001:2008

Designed to: MIL-STD-810 C&E
MIL-STD-461/462 D&E



A5SL-7790.00 Rev B

GP:50 reserves the right to make product improvements and amendments to the product specifications stated throughout this brochure without prior notification. Please contact the factory on all critical dimensions and specifications for verification.



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Specifications and options reflect standard product, other improved performance / mechanical / electrical / options available, consult factory for more information. Modifications may alter specs.

Ranges	15 thru 15,000 PSIA, PSIG or PSISG options
FS Output at Rated Pressure	3 mV/V at 10 Vdc / 0-5 Vdc / 4-20 dcmA / Isolated ptions
Temperature Sensor	100 ohm 2 wire platinum RTD optional 1000 ohm 2 wire platinum RTD also available
Excitation or Input Voltage Reverse Polarity Protected	18 to 36 Vdc / 9 to 36 Vdc Unregulated
Non-Repeatability	<0.1% FSO
Non-Linearity	<0.2% FSO
Hysteresis	<0.2% FSO
Static Accuracy RSS (pressure)	<0.3% FSO RSS, 0.1% optional
Static Accuracy (Temperature)	<0.3% FSO RSS, 0.1% optional
Pressure Medium (Wetted Materials)	316SS (Inconel, Hatelloy, Monel optional)
Operating/Environmental Temperature	+70°F to +400°F / +20°C to +200°C
Weight	8 oz. (approx.)
Electrical Connector	MIL PTIH-10-6P, D38999 series III optional
Response Time	< 4ms
Meets MIL-STD-461/462 EMI/RFI	Some options will affect EMI/RFI rating
Flex Tubing	18" Armored Capillary Tube

ORDERING GUIDE:

Some options will affect dimensions, consult factory if important.
Use the following codes to identify desired item.

MODEL	OUTPUT	RANGE	PRESSURE TYPE	OPTIONS
●	+	●	+	●

Example: 7790-2-RH-G-CA/FD/GH

OUTPUT

- 2 0-5 Vdc 4 wire hookup
- 3 4-20 dcmA
- 4 0-5 Vdc Isolated
- 5 0-10 Vdc 4 wire hookup
- 6 0-10 Vdc Isolated
- 9 0-5 Vdc 3 wire hookup
- 10 0-10 Vdc 3 wire hookup

RANGE (PSI)

- PP 0-15 RK 0-750
- PR 0-20 RM 0-1,000
- PO 0-25 RO 0-1,500
- PV 0-50 RR 0-2,000
- PZ 0-100 RT 0-3,000
- RB 0-150 RV 0-5,000
- RD 0-200 RX 0-7,500
- RF 0-300 RZ 0-10,000
- RH 0-500 SB 0-15,000

Contact factory for non-standard pressure ranges

PRESSURE TYPE

- A Sealed Absolute, ref to vacuum
- G Gauge, ref to atmosphere
- SG Sealed Gauge, ref to 14.7 psia

OPTIONS

CONNECTORS

- CA PTIH-10-6P Bendix
- CI D38999/27YB98N
- DB D38999/27YA35PN

PORTS

- FA MS33649-4, 7/16-20 (F)
- FD MS33656-4, 7/16-20 (M)

MISC:

- D Improved Accuracy to 0.1% Pressure, and 1% Temperature
- GB Alternate Full Scale Outputs
- GH 100% Internal Shunt
- GK Inconel Pressure Cavity
- GL Cleaning for oxygen service
- GP Hastelloy Pressure Cavity
- GU Monel Pressure Cavity
- JB 1000 ohm 2 wire RTD
- ME Shunt Cal, 80% Internal
- QV Improved response time to 0.5 seconds

FLEX TUBING:

- GT 30" Armored Capillary Tube
- HS 9" Armored Capillary Tube
- HV 24" Armored Capillary Tube
- HY 12" Armored Capillary Tube
- MT Non-standard Armored Capillary Tube (50" max)