



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

FLIGHT QUALIFIED DIGITALLY CORRECTED DIFFERENTIAL PRESSURE TRANSDUCER

Model 8300

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

FEATURES:

- High accuracy, 0.08% RSS standard (0.05% RSS available)
- Extremely lightweight, <8 oz.
- Mechanical isolation tube eliminates zero shift
- Cavity material options for special environments
- Zero shift with line pressure <1%
- 0-5 Vdc Isolated or 0-10 Vdc Isolated digitally corrected output
- Non-Oil filled
- Serial port (RS-232) controlled zero & span adjustment

Typical Applications:

- High Accuracy, Rugged Field Test Applications and Vehicles
- Space Qualified Flight Hardware Requirements
- Satellites
- Launch Vehicles



Heritage Includes

- NASA
- Lockheed Martin

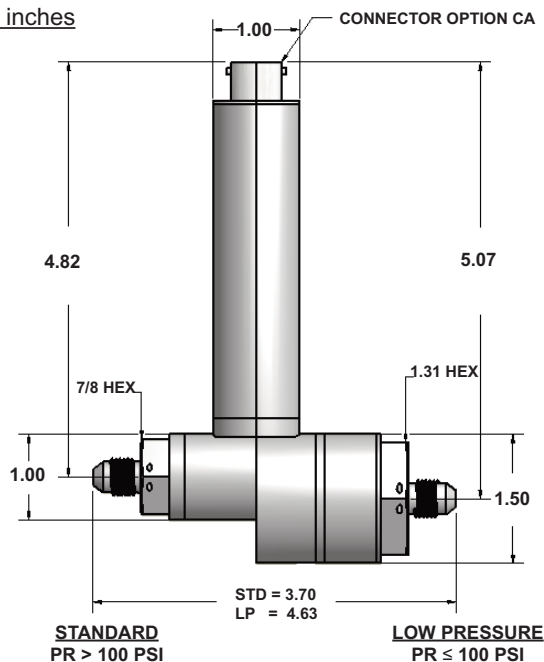
All GP:50 Aerospace pressure transducers are manufactured and tested to the following MIL-STD and MIL-Spec standards to insure the highest quality assurance:

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

Designed to: MIL-STD-810F All Methods
MIL-STD-461E

SEE INSTALLATION MANUAL FOR PINOUT ASSIGNMENT BASED ON ELECTRONICS OPTIONS

Units are inches



WIRING CODE

PIN OUT FOR OPTIONS 4, 6	
A	+ EXC.
B	+ SIG. OUT
C	- SIG. OUT
D	- EXC.
E	TX
F	RX

A5SL-8300.00 Rev C

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 1000 PSID / bi-directional or uni-directional
FS Output at Rated Pressure	0-5 Vdc Isolated or 0-10 Vdc Isolated Digitally corrected output
Differential Overload Pressure	1500 PSI may be applied to either port, 10,000 lb option
Zero Shift	<1% FSO with line pressure applied
Excitation or Input Voltage Reverse Polarity Protected	+18 thru +36 Vdc isolated
Non-Repeatability	<0.04% FSO
Non-Linearity	<0.05% FSO
Hysteresis	<0.05% FSO
Thermal Error	Zero <0.225% FSO / 100°F Span <0.225% FSO / 100°F
Static Accuracy RSS	<0.08% FSO RSS, 0.05% optional
Total Error	0.5% (All 5 parameters)
Wetted Materials	316SS (Inconel, Hastelloy optional)
Temperature Compensation	-10°F to +160°F standard, custom available
Operating/Environmental Temperature	-30°F to +170°F / -30°C to +255°C, -65°F to +250°F option
Weight	8 oz. (some options may affect weight)
Pressure Port	MS 33656-4 (M) standard
Electrical Connector	PTIH-10-6P
Response Time	500 ms (12 BIT Processor)
Meets MIL-STD-461 EMI/RFI	Some options will affect EMI/RFI rating

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: 8300-4-RH-A-CA/FD/GH

OUTPUT

- 2 0-5 Vdc 4 wire hookup (Non-Isolated)
- 4 0-5 Vdc Isolated
- 5 0-10 Vdc 4 wire hookup (Non-Isolated)
- 6 0-10 Vdc Isolated
- 9 0-5 Vdc 3 wire hookup (Non-Isolated)
- 10 0-10 Vdc 3 wire hookup (Non-Isolated)

RANGE (PSI)

- PP 0-15 RD 0-200
- PR 0-20 RF 0-300
- PO 0-25 RH 0-500
- PT 0-30 RK 0-750
- PV 0-50 RM 0-1,000
- PZ 0-100
- RB 0-150

Contact factory for non-standard pressure ranges.

PRESSURE TYPE

- D Differential

OPTIONS

CONNECTORS

- CA PTIH-10-6P Bendix
- CI D38999/27YB98PN
- DB D38999/27YA35PN

PORTS

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

MISC:

- D Improved Static Accuracy to 0.05%
- GB Alternate Full Scale Outputs
- GD 10X Proof Pressure (may affect overall performance, not available with options D,GF,GK,GP)
- GF Expanded process temperature range, -65 to 250°F (±2% FSO/100°F)
- GK Inconel Pressure Cavity
- GL Cleaning for oxygen service
- GP Hastelloy Pressure Cavity
- MS Bi-Directional
- MR Non-Standard Wiring