



# FLIGHT QUALIFIED DIFFERENTIAL PRESSURE TRANSDUCER

## Model 7300

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

### FEATURES:

- High accuracy and reliability
- Extremely lightweight, <8oz.
- Mechanical isolation tube eliminates zero shift
- Cavity material options for special environments
- RTD temperature or shunt output option
- Zero shift with line pressure <1%
- Low and high level outputs, 4-20 DCmA
- Non-oil filled

### Heritage Includes:

- NASA
- Lockheed Martin (EELV)
- Johns Hopkins APL
- Shuttle Upgrade
- Boeing
- Northrop Grumman - ABL



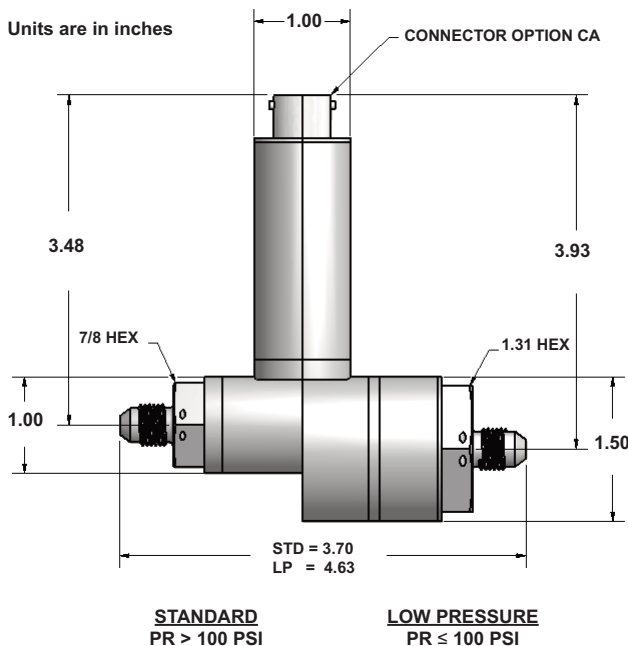
- High accuracy, Rugged Field Test Applications and Vehicles
- Space Qualified Flight Hardware Requirements
- Satellites
- Launch Vehicles

All GP:50 Aerospace differential 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 9001:2000

Transducer Design Meets: MIL-STD-810F  
 MIL-STD-461E

SEE INSTALLATION MANUAL FOR PINOUT ASSIGNMENT BASED ON ELECTRONICS OPTIONS



### WIRING CODE:

	4-20 mA PIN OUT FOR OPTION 3	0-5 Vdc PIN OUT FOR OPTIONS 2,4
A/1	+ EXC. / SIG. OUT	+ EXC.
B/2	NC	+ SIG. OUT
C/3	NC	- SIG. OUT
D/4	- EXC. / SIG. OUT	- EXC.
E/5	RTD (OPTIONAL)	RTD (OPTIONAL)
F/6	RTD (OPTIONAL)	RTD (OPTIONAL)

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.

A5SL-7300.00 Rev B



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

<b>Ranges</b>	15 thru 1,000 PSID / bi-directional or uni-directional
<b>FS Output at Rated Pressure</b>	3 mV/V at 10 Vdc / 0-5 Vdc / 4-20 dcmA / 0-5 Vdc isolated / 0-10 Vdc
<b>Differential Overload Pressure</b>	1500 PSI may be applied to either port, 10,000 lb optional
<b>Zero Shift</b>	< 1% FSO with line pressure applied
<b>Excitation or Input Voltage Reverse Polarity Protected</b>	+10 thru +15 Vdc nonisolated, +18 thru +36 Vdc isolated
<b>Non-Repeatability</b>	<0.1% FSO
<b>Non-Linearity</b>	<0.1% FSO (Terminal Method)
<b>Hysteresis</b>	<0.2% FSO
<b>Thermal Error</b>	Zero <0.5% / 100F Span <0.5% / 100F
<b>Static Accuracy BFSL</b>	<0.3% FSO (RSS)
<b>Total Error</b>	1.3% (All 5 parameters)
<b>Wetted Materials</b>	316SS (Inconel, Hastelloy optional)
<b>Temperature Compensation</b>	-10°F to +160°F standard, custom available
<b>Operating/Environmental Temperature</b>	-30°F to +170°F / -34°C to +80°C
<b>Weight</b>	8 oz. (some options may affect weight)
<b>Pressure Port</b>	MS 33656-4 (M) standard
<b>Electrical Connector</b>	PTIH-10-6P
<b>Response Time</b>	Under 4 ms
<b>Meets MIL-STD 461/ EMI/RFI</b>	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: 7300-2-RH-D-CA/FD/GH

### OUTPUT

- 1 3 mV/V
- 2 0-5 Vdc 4 wire hookup (Non-Isolated)
- 3 4-20 dcmA
- 4 0-5 Vdc Isolated
- 5 0-10 Vdc 4 wire hookup (Non-Isolated)
- 6 0-10 Vdc Isolated
- 7 2 mV/V
- 8 10 mV/V
- 9 0-5 Vdc 3 wire hookup (Non-Isolated)
- 10 0-10 Vdc 3 wire hookup (Non-Isolated)

### PRESSURE 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:

- GB Alternate full scale outputs
- GD 10X Proof Pressure (may affect overall performance, not available with options D, GF, GK, GP)
- GH 100% Internal Shunt
- GK Inconel Pressure Cavity
- GL Cleaning for oxygen service
- GP Hastelloy Pressure Cavity
- JA 100 ohm 2 wire RTD
- JB 1000 ohm 2 wire RTD
- ME Shunt cal, 80% Internal
- MS Bi-Directional