



FLIGHT QUALIFIED DIGITALLY CORRECTED DIFFERENTIAL PRESSURE TRANSDUCER

Model 8300

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

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

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



Heritage Includes

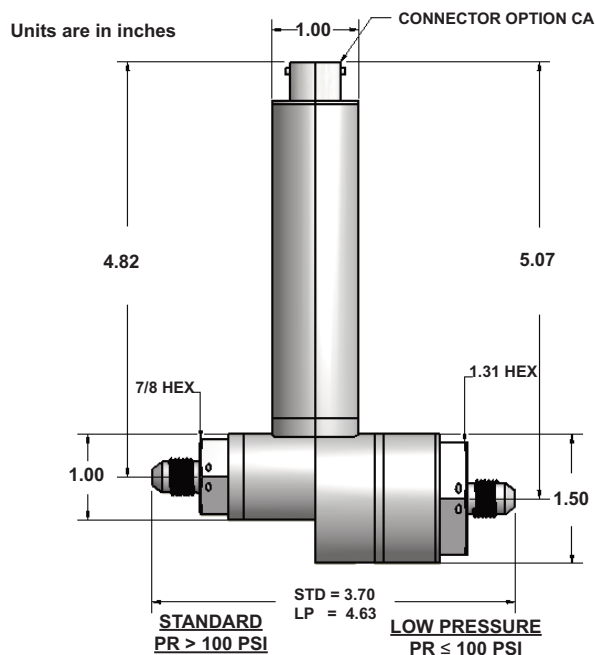
- NASA
- Lockheed Martin

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 All Methods
MIL-STD-461E

SEE INSTALLATION MANUAL FOR PINOUT ASSIGNMENT BASED ON ELECTRONICS OPTIONS



WIRING CODE:

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

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-8300.00 Rev C



Pressure, Level & Temperature Transmitters & Transducers

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

| | |
|---|--|
| 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% / 100F Span <0.225% / 100F |
| 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