



## 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 HIGH LEVEL DIGITALLY CORRECTED PRESSURE TRANSDUCER

### Model 8200

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)
- Proprietary mechanical isolation of the sensor for zero stability
- Cavity material options for extreme environments
- 10X overload option
- 0-5 Vdc Isolated or 0-10 Vdc Isolated digitally corrected output
- 100 G's Pk/Pk (3500 G shock), 1 Hr / Axis qualified
- Over 1,000,000 continuous cycles
- "B+" and "S" class electronics available
- Cleaning to MIL-STD-1246 available
- Serial port (RS-232) controlled zero & span adjustment

### Typical Applications:

- Satellites: Commercial and Defense
- Ground & Engine Test
- Launch Vehicles
- Aircraft Systems / Avionics

### Heritage Includes

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

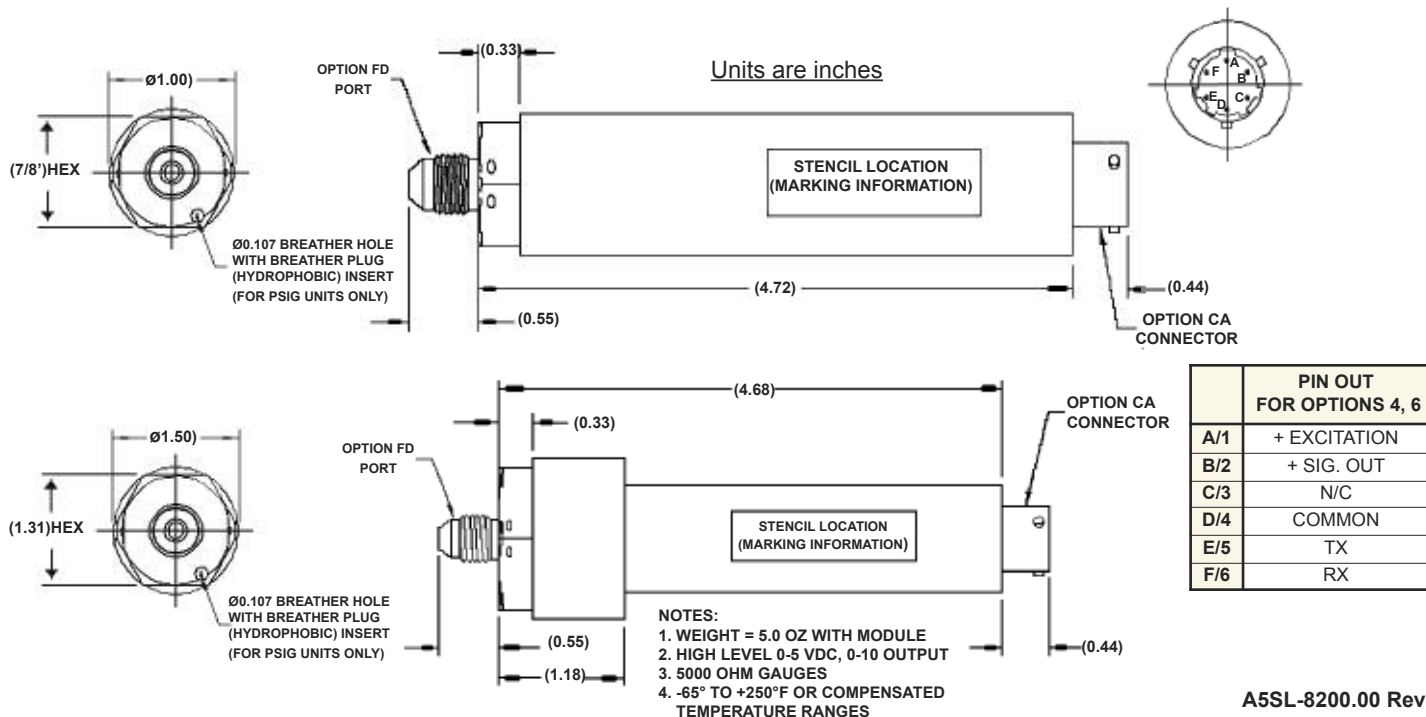


All GP:50 Aerospace pressure transducers are manufactured and tested to the following MIL-STD and MIL-Spec standards to insure the highest quality assurance:

- 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



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.

|                                                                                        |                                                                  |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Ranges</b>                                                                          | 3 thru 15,000 PSIA, PSIG or PSISG options                        |
| <b>FS Output at Rated Pressure</b>                                                     | 0-5 Vdc Isolated or 0-10 Vdc Isolated Digitally corrected output |
| <b>Proof Pressure</b>                                                                  | 1.5X with 25 psia min, 10X optional                              |
| <b>Burst Pressure</b>                                                                  | 3.0X (4500 secondary containment) (300 min)                      |
| <b>Excitation or Input Voltage<br/>Reverse Polarity Protected</b>                      | 18 V - 36 Vdc Unregulated, +12, +15 Vdc Regulated                |
| <b>Non-Repeatability</b>                                                               | <0.04% FSO                                                       |
| <b>Non-Linearity</b>                                                                   | <0.05% FSO                                                       |
| <b>Hysteresis</b>                                                                      | <0.05% FSO                                                       |
| <b>Thermal Error</b>                                                                   | Zero 0.225% FSO / 100°F<br>Span 0.225% FSO / 100°F               |
| <b>Static Accuracy RSS</b>                                                             | <0.08% FSO RSS, 0.05% optional                                   |
| <b>Error Band (all 5 parameters)</b>                                                   | 0.5% FSO                                                         |
| <b>Pressure Medium (Wetted Materials)</b>                                              | 316SS port, 15-5 sensor (Inconel, Hastelloy optional)            |
| <b>Temperature Compensation</b>                                                        | -10°F to +180°F / -20°C to +80°C, expanded range optional        |
| <b>Operating/Environmental Temperature</b>                                             | -20°F to +190°F / -30°C to +90°C                                 |
| <b>Weight</b>                                                                          | 5 oz. (some options may affect weight)                           |
| <b>Pressure Port</b>                                                                   | MS 33656-4 (M)                                                   |
| <b>Electrical Connector</b>                                                            | PTIH-10-6P, MIL D38999 series III                                |
| <b>Shunt Cal 80% Option</b>                                                            | Internal                                                         |
| <b>Vibration, Shock, Acceleration<br/>Designs meets MIL-STD-810C&amp;E requirement</b> | 25 Grms / 100G's Pk/Pk / 3500 G Pyroshock / 12g                  |
| <b>Response Time</b>                                                                   | 500 ms (12 BIT Processor)                                        |
| <b>Meets MIL-STD-461/462 EMI/RFI &amp; 810C &amp; E</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<br>TYPE | OPTIONS |
|-------|--------|-------|------------------|---------|
| ●     | —      | ●     | —                | ●       |

Example: 8200-4-RH-A-CA/FD/GH

#### OUTPUT

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

#### RANGE (PSI)

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

\*Can dia. 1.5"

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 D38999/27YB98PN
- 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)  
Option GD (Not available on low pressure transducer)
- GK Inconel Pressure Cavity
- GL Cleaning for oxygen service
- GP Hastelloy Pressure Cavity
- MR Non-Standard Wiring