



# FLIGHT QUALIFIED HIGH LEVEL DIGITALLY CORRECTED PRESSURE TRANSDUCER

## Model 8200 "B+" and "S" Class Electronics Available

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

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



### 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

### Heritage Includes

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

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:

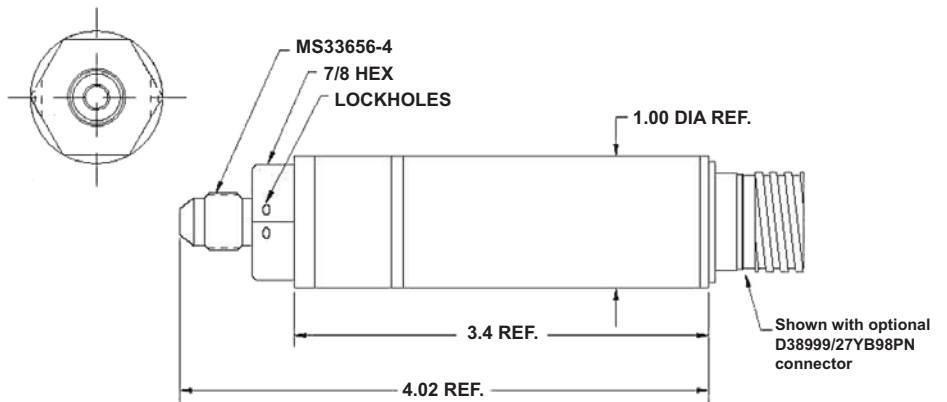
- NIST Traceability and Calibration..... MIL-STD-45662A
- Workmanship ..... J-001 / NASA 8739.3 standards
- Quality System ..... ISO 9001:2000

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

| PIN OUT |              |
|---------|--------------|
| A       | + EXCITATION |
| B       | + SIG. OUT   |
| C       | - SIG. OUT   |
| D       | - EXCITATION |
| E       | TX           |
| F       | RX           |

### NOTES:

1. WEIGHT = 5.0 OZ WITH MODULE
2. HIGH LEVEL 0-5 VDC OR 0-10 OUTPUT
3. 5000 OHM GAUGES
4. -65° TO +250°F OR COMPENSATED TEMPERATURE RANGES



Units are in inches.

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.



# Pressure, Level & Temperature Transmitters & Transducers

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

|  |  |
|--|--|
| Ranges   | 3 thru 20,000 PSIA, PSIG or PSISG options                        |
| FS Output at Rated Pressure  | 0-5 Vdc Isolated or 0-10 Vdc Isolated Digitally corrected output |
| Proof Pressure   | 1.5X with 25 psia min, 10X optional                              |
| Burst Pressure   | 2.0X (4500 secondary containment) (300 min)                      |
| Excitation or Input Voltage<br>Reverse Polarity Protected                  | 18V-36Vdc Unregulated, +12, +15 Vdc Regulated                    |
| Non-Repeatability  | <0.04% FSO   |
| Non-Linearity  | <0.05% FSO   |
| Hysteresis   | <0.05% FSO   |
| Static Accuracy RSS  | <0.08% FSO RSS, 0.05% optional                                   |
| Error Band (all 5 parameters)  | 1.0% FSO   |
| Pressure Medium (Wetted Materials)   | 316SS port, 15-5 sensor (Inconel, Hastelloy optional)            |
| Temperature Compensation   | -10°F to +180°F / -20°C to +80°C, expanded range optional        |
| Operating/Environmental Temperature  | -20°F to +190°F / -30°C to +90°C                                 |
| Weight   | 5 oz. (some options may affect weight)                           |
| Pressure Port  | MS 33656-4 (M)   |
| Electrical Connector   | PTIH-10-6P, MIL D38999 series III                                |
| Shunt Cal 80% Option   | Internal   |
| Vibration, Shock, Acceleration<br>Designs meets MIL-STD-810C&E requirement | 25 Grms / 100G's Pk/Pk / 3500 G Pyroshock / 12g                  |
| Response Time  | Under 4 ms   |
| Meets MIL-STD-461/462 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: 8200-4-RH-A-CA/FD/GH

### OUTPUT

- 4 0-5 Vdc Isolated
- 6 0-10 Vdc Isolated

### RANGE (PSI)

- PG 0-3\*      RH 0-500
- PJ 0-5        RK 0-750
- PN 0-10      RM 0-1000
- PP 0-15      RO 0-1500
- PR 0-20      RR 0-2,000
- PO 0-25      RT 0-3,000
- PV 0-50      RV 0-5,000
- PZ 0-100     RX 0-7,500
- RB 0-150     RZ 0-10,000
- RD 0-200     SB 0-15,000
- RF 0-300

Contact factory for non-standard pressure ranges.

\*Can dia. 1.5"

### 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 GF,GK,GP)
- GF Expanded process temperature range, -65 to 250° F (±2% FSO/100°F)
- GH 100% Internal Shunt
- GK Inconel Pressure Cavity
- GL Cleaning for oxygen service
- GP Hastelloy Pressure Cavity
- ME Shunt Cal, 80% Internal

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