



## FLIGHT HERITAGE DIGITALLY CORRECTED PRESSURE TRANSDUCER



Model 8200  
Flight Heritage Digitally Corrected  
Pressure Transducer

### MODEL 8200

#### FEATURES:

- High accuracy, up to 0.05% available
- 10X overload option
- 0 to 5 Vdc, or 0 to 10 Vdc or 4-20mA output
- 4 wire Isolated output option
- Secondary containment rated at 4,500 PSI (310 BAR) for ranges  $\geq 300$  PSI

#### APPLICATIONS:

- Aviation and suborbital spacecraft
- Unmanned aerial vehicles
- Helicopter and rotorcraft
- Commercial and military satellites
- Launch vehicles
- Ground and engine testing

#### PRODUCT OVERVIEW:

The Model 8200 series from GP:50 is a flight heritage, high level pressure transducer. Digitally corrected to provide high-accuracy pressure measurements with a proprietary sensor design for added zero stability for commercial aviation, military, aerospace, UAV, satellite, and defense applications.

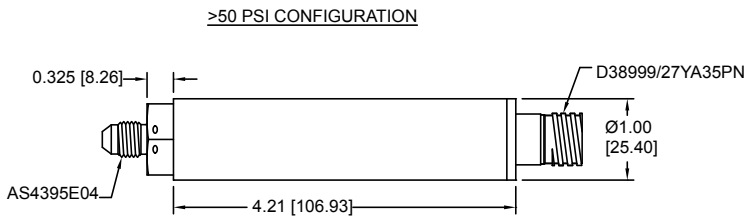
#### FIELD OPTIONS:

- 0 to 5 Vdc, 0 to 10 Vdc and 4-20 mA outputs (Isolated output options available)
- Temperature output
- Optional wetted materials available
- O2 cleaning to MIL-STD-1246 available

# GP:50 MODEL 8200

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)



## STANDARD WIRING

PIN	4-20mA	4-WIRE VDC ISOLATED	4-WIRE VDC NON-ISOLATED	3-WIRE VDC
A/1	+EXC/SIG	+EXC	+EXC	+EXC
B/2	N/C	+SIG	+SIG	+SIG
C/3	N/C	-SIG	-SIG*	N/C
D/4	-EXC/SIG	-EXC	-EXC*	-EXC/SIG
E/5	N/C	N/C	N/C	N/C
F/6	N/C	N/C	N/C	N/C

\*COMMONS JUMPERED

## REFERENCE SPECIFICATIONS

### ELECTRICAL

- **Supply Voltage:** 9 to 36 Vdc (some options may affect this)
- **Output Signal:** 0 to 5 Vdc, 0 to 10 Vdc, 4-20mA
- **Load Resistance:**  
Voltage Output: 100K  $\Omega$  min.  
Current Output: 1150  $\Omega$  max. at 32 Vdc
- **Circuit Protection:** 500 Hz  
Revers polarity protected

### ACCURACY

- **Static Accuracy:**  $\pm 0.1\%$  FSO with  $\pm 0.05\%$  available
- **Non-repeatability:**  $< \pm 0.04$  FSO
- **Hysteresis:**  $< \pm 0.05$  FSO
- **Thermal Error:**  $\pm 0.225\%$  FSO/100  $^{\circ}$ F
- **Total Error Band:**  $\pm 0.5\%$  FSO

### MATERIALS OF CONSTRUCTION

- **Wetted Parts:** Ranges  $\leq 100$  PSI: 316L SST;  $> 100$  PSI: 17-4 PH SST (Inconel, Hastelloy optional)
- **Housing:** 316L stainless steel

### PRESSURE RANGES

- 0 to 3 thru 0 to 15K PSIA, PSIG, PSIV, PSISG options (0.2 thru 1,034 BAR)

### MECHANICAL

- **Process connection:** AS5202-04 standard. Other available, consult factory.
- **Proof Pressure:** 1.5X FSO (25 PSIA min.) 10X optional
- **Burst Pressure:** 3.0X FSO
- **Secondary containment:** Rated at 4,500 PSI (310 BAR) for ranges  $\geq 300$  PSI
- **Random Vibration:**  $> 25$  G RMS (20 Hz to 2,000 Hz)
- **Sinusoidal Vibration:** 7.5 G's from 5 Hz to 100 Hz
- **Pyroshock:**  $> 3,500$  G's / 12 g
- **Shock:** 100 G's Peak to peak
- **Constant Acceleration:** 12 g
- **Approximate Weight:**  $< 5$  oz (0.1 kg) some options may affect weight

### THERMAL SPECIFICATION

- **Compensated:**  $-10$   $^{\circ}$ F to  $+180$   $^{\circ}$ F ( $-23$   $^{\circ}$ C to  $+82$   $^{\circ}$ C)
- **Operating Ambient:**  $-20$   $^{\circ}$ F to  $+190$   $^{\circ}$ F ( $-29$   $^{\circ}$ C to  $+88$   $^{\circ}$ C)
- **NIST Traceability/Calibration:** ANSI-Z540-1
- **Workmanship:** J-001/NASA 8739.3 standard
- **Quality System:** ISO 9001:2008

**Standard configurations shown.  
Please consult factory for other options.**

All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact GP:50 for assistance with your application.

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