

## MODEL 8300

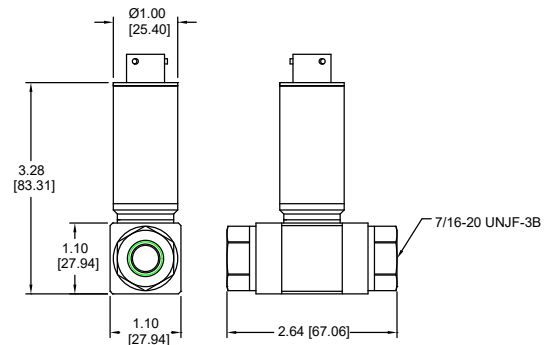
### FLIGHT HERITAGE DIGITALLY CORRECTED DIFFERENTIAL PRESSURE TRANSDUCER



**STANDARD WIRING**

PIN	4-20mA	4-WIRE MV/V & VDC ISOLATED	4-WIRE VDC NON-ISOLATED	3-WIRE VDC
1/RED	+EXC/SIG	+EXC	+EXC	+EXC
2/GRN	N/C	+SIG	+SIG	+SIG
3/WHT	N/C	-SIG	-SIG*	N/C
4/BLK	-EXC/SIG	-EXC	-EXC*	-EXC/SIG
5/BLU	N/C	N/C	N/C	N/C
6/BRN	N/C	N/C	N/C	N/C

\* COMMONS JUMPED



Standard configurations shown.  
Please consult factory for other options.

#### PRODUCT OVERVIEW:

The Model 8300 series from GP:50 is a flight heritage, differential pressure transducer, providing high reliability with high accuracy. The compact, proprietary sensor design provides years of reliable measurement required for commercial aviation, military, aerospace, UAV, satellite, and defense applications.

#### FEATURES:

- 0.05% FSO accuracy
- Lightweight, <8 oz (0.2 kg)
- 0 to 5 Vdc or 4-20mA output
- 1000 PSI line pressure rating
- Ranges from 0-1 thru 0-500 PSID

#### APPLICATIONS:

- Aviation and suborbital spacecraft
- Space qualified flight
- Commercial and military satellites
- Launch vehicles
- Test stand applications

#### OPTIONS:

- 4-wire isolated outputs
- Bi-directional operation
- Oxygen compatible design
- Various MIL-SPECS available. Consult factory.

# GP:50 MODEL 8300

## REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	4-20 mA, 0 to 5 Vdc, and 0 to 10 Vdc
Excitation Voltage:	8 to 32 Vdc (4-20 mA and 0-5 Vdc non-isolated output) 12-32 Vdc (0-10 Vdc and 0-5 Vdc isolated output)
Circuit Protection:	EMI/RFI, Reverse polarity
Response Time:	~1 kHz

MATERIALS OF CONSTRUCTION	
Wetted Parts:	316L Stainless Steel
Housing:	300 Series Stainless Steel
Internal Fill:	Fomblin oil

ACCURACY (RSS): Hysteresis, Non-Linearity & Repeatability @ +70 °F	
Static Accuracy (RSS):	≤ ±0.15% FSO
Non-linearity:	≤ ±0.05% FSO (Typ)
Hysteresis:	≤ ±0.1% FSO (Typ)
Repeatability:	≤ ±0.1% FSO (Typ)
Zero Balance:	±0.5% FSO
Span Balance:	±0.5% FSO

(BFSL method used. Improved options available.)

Calibration:	NIST Traceable Cert
Workmanship:	IPC-A-610 Soldering
Quality System:	ISO 9001

Options may affect specifications.  
Please consult factory for your specific needs.

MECHANICAL	
Process Connection:	AS5202-04 standard
Electrical Connection:	PTIH-10-6P standard, options available
Proof Pressure:	3X pressure range
Burst Pressure:	5X pressure range
Static Line Pressure:	1000 PSI
Zero Shift with line pressure:	0.5%/100 PSI
Random Vibration:	>25 G RMS (20 Hz to 2,000 Hz)
Shock:	100g half-sine 11ms
Approximate Weight:	8 oz (0.2 kg) some options may affect weight
Orientation Effect:	≤2 PSI: ±3.5% FSO, Rotated 90° from Horizontal

PRESSURE RANGES	
0 to 1 thru 0 to 500 PSID (0.07 thru 34.5 BAR) (Bidirectional or Unidirectional)	

THERMAL SPECIFICATIONS	
Operating Range:	-40°F to +250 °F (-40 °C to +121 °C)
Compensated Range:	0 °F to +180 °F (-18 °C to +82 °C) (options available*)
Storage:	-65 °F to 250 °F (-54 °C to +121 °C)
Effect on Zero/Span:	Standard: ±0.50% FSO/100 °F Improved: ±0.25% FSO/100 °F
*Compensated Ranges from -65 °F to +250 °F (-54 °C to +121 °C) available	

