

MODEL 8300

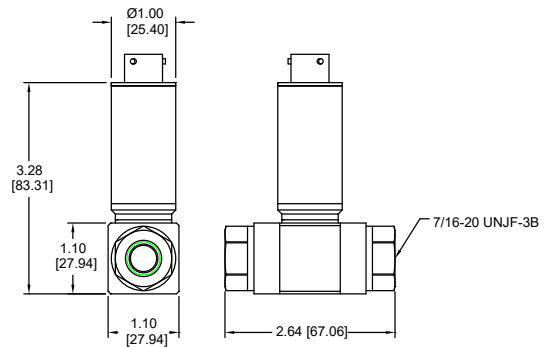
FLIGHT HERITAGE DIGITALLY CORRECTED DIFFERENTIAL PRESSURE TRANSDUCER



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 JUMPERED



**REF DIMENSIONS ONLY.
CONSULT FACTORY FOR ACTUAL DIMENSIONS.**

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 heritage 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 (May contain Silicone 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: | AS9100 |

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: | 0.75% FSO/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 | |

