



## FLIGHT QUALIFIED DIGITALLY CORRECTED DIFFERENTIAL PRESSURE TRANSDUCER

### MODEL 8300

#### FEATURES:

- Accuracy option to 0.05% FSO
- 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

#### PRODUCT OVERVIEW:

The Model 8300 series from GP:50 is a flight qualified, 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.

#### FIELD OPTIONS:

- 4-wire isolated outputs
- Bi-directional operation
- Oxygen compatible design



Model 8300  
Flight Qualified Digitally Corrected  
Differential Pressure Transducer

# GP:50 MODEL 8300

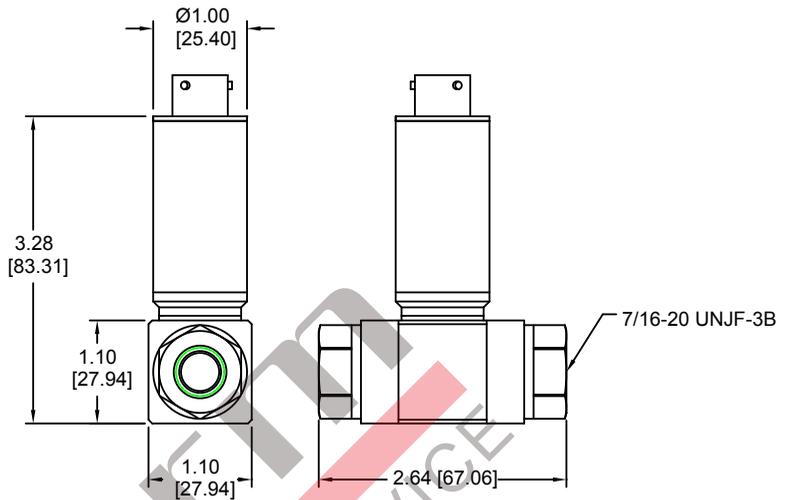
## DIMENSIONAL DRAWING

All dimensions are in inches (mm)

### 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



## REFERENCE SPECIFICATIONS

<b>ELECTRICAL</b> <ul style="list-style-type: none"> <li>• <b>Output Signal:</b> 0 to 5 Vdc, 0 to 10 Vdc digitally corrected</li> <li>• <b>Supply Voltage:</b> 18 to 36 Vdc (unregulated)</li> <li>• <b>Response Time:</b> ~500 Hz</li> <li>• <b>Circuit Protection:</b> Meets MIL-STD-461 EMI/RFI, Reverse polarity</li> <li>• <b>Connection:</b> PTIH-10-6P standard, options available</li> </ul>	<b>MECHANICAL (Other options available)</b> <ul style="list-style-type: none"> <li>• <b>Process connection:</b> AS5202-04 standard</li> <li>• <b>Proof Pressure:</b> 3X pressure range (Higher available)</li> <li>• <b>Burst Pressure:</b> 5X pressure range</li> <li>• <b>Static Line Pressure:</b> 1000 PSI</li> <li>• <b>Random Vibration:</b> &gt;25 G RMS (20 Hz to 2,000 Hz)</li> <li>• <b>Approximate Weight:</b> 8 oz (0.2 kg) (some options may affect weight)</li> </ul>
<b>ACCURACY</b> <ul style="list-style-type: none"> <li>• <b>Static Accuracy:</b> &lt;±0.10% FSO, +/-0.05% FSO available</li> <li>• <b>Zero-repeatability:</b> &lt;±0.04% FSO</li> <li>• <b>Hysteresis:</b> &lt;±0.05% FSO</li> <li>• <b>Zero/Span Balance:</b> ±0.1% FSO</li> <li>• <b>Line Pressure Effect (Zero):</b> &lt;±1.0% FSO/1,000 PSI</li> </ul>	<b>PRESSURE RANGES</b> <ul style="list-style-type: none"> <li>• 0 to 1 thru 0 to 500 PSID (0.07 Bar thru 34.5 BAR) Bi-directional or uni-directional</li> </ul>
<b>MATERIALS OF CONSTRUCTION</b> <ul style="list-style-type: none"> <li>• <b>Wetted Parts:</b> 316L stainless steel</li> <li>• <b>Housing:</b> 300 series stainless steel</li> <li>• <b>Internal Fill:</b> Silicon Oil (Fomblin Oil Available)</li> </ul>	<b>THERMAL SPECIFICATION</b> <ul style="list-style-type: none"> <li>• <b>Compensated Range:</b> 0 °F to +180 °F (-18°C to +83°C) (other available)</li> <li>• <b>Operating Range:</b> -40 °F to +250 °F (-40 °C to +121 °C)</li> <li>• <b>Storage Ambient:</b> -65 °F to +250 °F (-54 °C to +121 °C)</li> <li>• <b>Effect on Zero/Span:</b> Standard: ±0.50% FSO/100 °F Improved: ±0.25% FSO/100 °F</li> </ul>

**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.