



FLIGHT HERITAGE DIFFERENTIAL PRESSURE TRANSDUCER

MODEL 7300

FEATURES:

- Digital correction provides an optional 0.05% FSO accuracy
- Extremely lightweight, <8 oz (0.2 kg)
- 0 to 5 Vdc, 0 to 10 Vdc, or 4-20mA output
- Line pressure shift <1% FSO/1000 PSI
- 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
- Ground and engine testing

PRODUCT OVERVIEW:

The Model 7300 series from GP:50 is a flight qualified, differential pressure transducer digitally corrected to provide high-accuracy pressure measurement. The compact, proprietary sensor design provides added zero stability required for commercial aviation, military, aerospace, UAV, satellite, and defense applications.

FIELD OPTIONS:

- 0 to 5 Vdc, 0 to 10 Vdc isolated output
- Bi-directional operation
- Fomblin Oil fill for O2 applications



Model 7300
Flight Qualified
Differential Pressure Transducer

GP:50 MODEL 7300

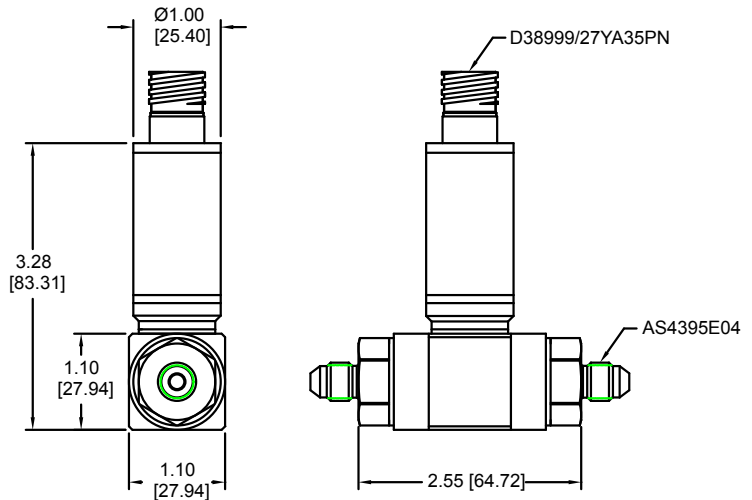
DIMENSIONAL DRAWING

All dimensions are in inches (mm)

STANDARD WIRING

PIN	4-20mA	4-WIRE VDC ISOLATED	4-WIRE VDC NON-ISOLATED	3-WIRE VDC
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

ELECTRICAL

- **Output Signal:** 0 to 5 Vdc, 0 to 10 Vdc digitally corrected
- **Supply Voltage:** 18 to 36 Vdc (unregulated)
- **Response Time:** ~500 Hz
- **Circuit Protection:** Meets MIL-STD-461 EMI/RFI, Reverse polarity
- **Connection:** PTIH-10-6P standard, options available

ACCURACY

- **Static Accuracy:** $< \pm 0.10\%$ FSO, $\pm 0.05\%$ FSO available
- **Zero-repeatability:** $< \pm 0.04\%$ FSO
- **Hysteresis:** $< \pm 0.05\%$ FSO
- **Zero/Span Balance:** $\pm 0.1\%$ FSO
- **Line Pressure Effect (Zero):** $< \pm 1.0\%$ FSO/100 PSI

MATERIALS OF CONSTRUCTION

- **Wetted Parts:** 316L stainless steel
- **Housing:** 300 series stainless steel
- **Internal Fill:** Silicon Oil (Fomblin Oil Available)

MECHANICAL (Other options available)

- **Process connection:** AS5202-04 standard
- **Proof Pressure:** 3X pressure range (Higher available)
- **Burst Pressure:** 5X pressure range
- **Static Line Pressure:** 1000 PSI
- **Random Vibration:** > 25 G RMS (20 Hz to 2,000 Hz)
- **Approximate Weight:** 8 oz (0.2 kg)
(some options may affect weight)
- **Orientation Effect ≤ 2 PSI:** $\pm 3.5\%$ FSO, Rotated 90° from Horizontal

PRESSURE RANGES

- 0 to 1 thru 0 to 500 PSID (0.07 Bar thru 34.5 BAR)
Bi-directional or uni-directional

THERMAL SPECIFICATION

- **Compensated Range:** 0°F to $+180^\circ\text{F}$ (-18°C to $+83^\circ\text{C}$)
(other available)
- **Operating Range:** -40°F to $+250^\circ\text{F}$ (-40°C to $+121^\circ\text{C}$)
- **Storage Ambient:** -65°F to $+250^\circ\text{F}$ (-54°C to $+121^\circ\text{C}$)
- **Effect on Zero/Span:**
Standard: $\pm 0.50\%$ FSO/100 $^\circ\text{F}$
Improved: $\pm 0.25\%$ FSO/100 $^\circ\text{F}$
- **NIST Traceability**
- **Workmanship:** J-001
- **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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