

# **AEROSPACE**

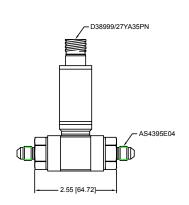
## **MODEL 7300**

# FLIGHT HERITAGE DIFFERENTIAL PRESSURE TRANSDUCER



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
			* COMMC	NS JUMPERED

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REF DIMENSIONS ONLY. CONSULT FACTORY FOR ACTUAL DIMENSIONS.

### **PRODUCT OVERVIEW:**

GP:50 Model 7300 is a flight heritage, 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.

#### **FEATURES:**

- Accuracy to 0.1% FSO
- Extremely lightweight, <8 oz (0.2 kg)</li>
- 0 to 5 Vdc, 0 to 10 Vdc, or 4-20mA output
- Line pressure shift < 1% FSO/100 PSI</li>
- 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

#### **OPTIONS:**

- Digital correction provides an optional 0.05% FSO accuracy
- 0 to 5 Vdc, 0 to 10 Vdc isolated output
- Bi-directional operation
- Fomblin Oil fill for O2 applications
- Various MIL-SPECS available. Consult factory.



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## **GP:50 MODEL 7300**

#### REFERENCE SPECIFICATIONS

## (Standard configurations shown, consult factory for other options)

ELECTRICAL		
Output Signal:	4-20mA, 0 to 5 Vdc or 0 to 10 Vdc	
Excitation Voltage:	8 to 32 Vdc (4-20mA, and 0-5 Vdc non- isolated output) 12-32 Vdc (0-10 Vdc and 0-5 Vdc isolated output)	
RLoad max:	(4-20 mA)=((Power supply Voltage - 9.0V) / .020) - Wire Resistance. (Options may affect this, consult factory)	
Circuit Protection:	EMI/RFI, Reverse Polarity	
Response Time:	~1 ms	

MATERIALS OF CONSTRUCTION		
Wetted Parts:	316L Stainless Steel	
Housing:	300 Series Stainless Steel	
O-Ring:	Buna-N (Nitrile) is standard. For expanded temp ranges (-65 °F to 350 °F, 54 °C to 177 °C) Flourosilicone is standard.	
Internal Fill:	Silicone Oil (Fomblin oil available)	

ACCURACY (RSS): Hysteresis, Non-Linearity & Repeatability @ +70 °F		
Static Accuracy (RSS):	≤±0.3% FSO	
Non-Linearity:	≤±0.2% FSO (Typ)	
Hysteresis:	≤±0.1% FSO (Typ)	
Repeatability:	≤±0.1% FSO (Typ)	
Zero Balance:	±1.0% FSO	
Span Balance:	±1.0% 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:	AS4395E04 standard (Optional pressure ports available)	
Electrical Connection:	D38999 standard, options available	
Proof Pressure:	3X pressure range (Higher available)	
Burst Pressure:	5X pressure range	
Static Pressure:	1000 PSI	
Random Vibration:	>25 G RMS (20 Hz to 2,000 Hz)	
Orientation Effect ≤2 PSI:	±3.5% FSO, Rotated 90° from Horizontal	
Approximate Weight:	<8 oz (0.2 kg) (Some options may affect weight)	

PRESSURE RANGES
0 to 1 thru 0 to 500 PSID (0.07 BAR 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) (Other available)	
Compensated Ranges from -65 °F to +250 °F (-54 °C to +121 °C)		
Effect on Zero & Span:	±1.0% FSO/100 °F (Improved specifications available)	

