



# AEROSPACE

## MODEL 7100

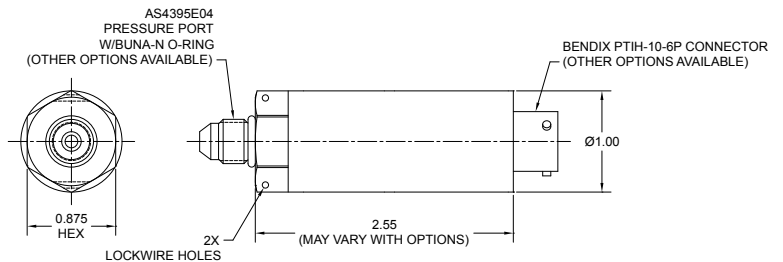
### mV AEROSPACE HERITAGE PRESSURE TRANSDUCER

GP:50 Aerospace Heritage products can be designed to meet various MIL Specifications. Consult factory.



#### WIRING CONFIGURATION:

PIN	DESCRIPTION
A/1	+EXC
B/2	+SIG
C/3	-SIG
D/4	-EXC
E/5	N/C
F/6	N/C



GP:50 Cage Code: ON8Y7

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

#### PRODUCT OVERVIEW:

Model 7100 flight-heritage, low level pressure transducer from GP:50 is designed to provide high-accuracy measurements of up to  $\pm 0.1\%$  FSO. Its flight heritage, spanning 25 years, makes it ideal for use within demanding aerospace and defense applications, including those in which higher shock and vibration levels may be present. Its compact and lightweight design facilitates ease of installation within space constrained environments.

#### FEATURES:

- Aircraft and space flight heritage
- Compact, lightweight stainless steel design
- High accuracies up to  $\pm 0.1\%$  FSO (BFSL)
- Wide operating temperature range from  $-70^{\circ}\text{F}$  to  $+275^{\circ}\text{F}$  ( $-56^{\circ}\text{C}$  to  $+135^{\circ}\text{C}$ )
- Secondary containment rated to 4,500 PSI (310 BAR)

#### APPLICATIONS:

- Commercial and defense satellites
- Launch vehicles
- Unmanned aerial vehicles
- Military and civilian aircraft
- Ground support and engine test stands

#### OPTIONS:

- "B+ and S Class" amplified electronics available
- Temperature output
- Inconel, Hastelloy, and Monel wetted parts
- Wide selection of pressure ports and electrical connections
- Various MIL-SPECS available. Consult factory.

# GP:50 MODEL 7100

## REFERENCE SPECIFICATIONS

Standard configurations shown, consult factory for other options

ELECTRICAL	
Output Signal:	Non-amplified 1-3 mV/V (Range dependent) (Optional 5 mV/V - 10mV/V outputs available)
Excitation Voltage:	3.5 to 15 Vdc
Bridge Resistance:	5K $\Omega$ standard, 350 $\Omega$ optional
Response Time:	3-5 kHz typical

MATERIALS OF CONSTRUCTION	
Wetted Parts:	17-4 PH or 316L pressure range dependent (Inconel, Hastelloy and Monel available)
Housing:	316L Stainless Steel
Internal Fill:	Optional: <1000 PSI units offer Silicone or Fomblin oil (Consult Factory)

ACCURACY (Hysteresis, Non-Linearity & Repeatability @ +70 °F)	
Static Accuracy (RSS):	$\leq \pm 0.3\%$ FSO
Non-linearity:	$\leq \pm 0.2\%$ FSO (Typ)
Hysteresis:	$\leq \pm 0.15\%$ FSO (Typ)
Repeatability:	$\leq \pm 0.1\%$ FSO (Typ)
Zero Balance:	$\pm 1.0\%$ FSO
Span Balance:	$\pm 1.0\%$ 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:	PTIH-10-6P standard, options available
Proof Pressure:	1.5X FSO
Burst Pressure:	3.0X FSO
Secondary Containment:	Rated at 4,500 PSI (310 BAR)
Random Vibration:	>25 G RMS (20 Hz to 2,000 Hz) (options available)
Pyroshock:	100 G half-sine shock pulse over 11msec (options available)
Constant Acceleration:	5 G's for 30 minutes
Approximate Weight:	4 oz (0.1 kg) some options may affect weight

PRESSURE RANGES	
0-2 thru 0 to 15K PSIA, PSIG, PSIV, PSISG options (14 mBAR thru 1,034 BAR) (Ranges below 1,000 PSI require oil-filled sensor, consult factory)	

THERMAL SPECIFICATIONS	
Operating Range:	<1000 PSI: -40°F to +250 °F (-40 °C to +121 °C)
	$\geq 1000$ PSI: -65°F to +275 °F (-54 °C to +135 °C) (Certain ranges can affect Operating Range)
Compensated Range:	0 °F to +180 °F (-18 °C to +82 °C)
Compensated Ranges from -65 °F to +250 °F (-54 °C to 121 °C) available	
Effect on Zero & Span:	$\pm 1.0\%$ FSO/100 °F (Improved specifications available)

