



Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

Tel. (716) 773-9300 • Fax (716) 773-5019

sales@gp50.com • www.gp50.com

FLIGHT QUALIFIED LOW LEVEL PRESSURE TRANSDUCER

Model 7100

Designed for the tough challenges and environmental rigors of space propulsion and aviation pressure testing.

FEATURES:

- High accuracy, 0.3% RSS (terminal point) standard (0.1% RSS available)
- Nominal 3mV/V output, up to 10mV/V options
- Space and flight qualified
- Secondary containment as high as 4500 psi on most ranges.

Typical Applications:

- Satellites: Commercial and defense
- Ground & Engine Test
- Launch Vehicles
- Aircraft Systems / Avionics

Heritage Includes:

- NASA
- Lockheed Martin (EELV)
- Johns Hopkins APL
- Shuttle Upgrade
- Boeing
- TRW-ABL
- Dept. of Defense



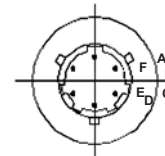
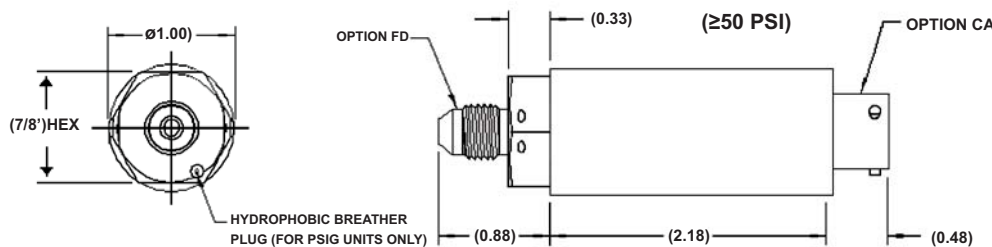
(Low Range)
<50 PSI

GP:50 Aerospace transducers are manufactured and tested to the following MIL-STD & MIL-Spec to insure the highest quality:

- NIST Traceability and Calibration..... ANSI-Z540-1
- Workmanship J-001 / NASA 8739.3 standards
- Quality System ISO 9001:2008

Transducer Design Meets: MIL-STD-810F / MIL-STD-461E

SEE INSTALLATION MANUAL FOR PINOUT ASSIGNMENT BASED ON ELECTRONICS OPTIONS

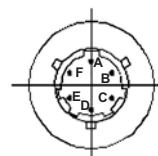
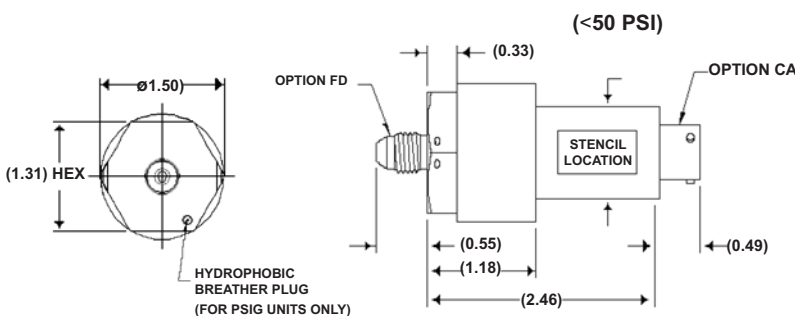


WIRING CODE

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

STANDARD WIRING.
OPTIONS MAY AFFECT PIN OUT

Units are inches



A5SL-7100.00 Rev F

GP:50 reserves the right to make product improvements and amendments to the product specifications stated throughout this brochure without prior notification. Please contact the factory on all critical dimensions and specifications for verification.



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Specifications and options reflect standard product with amplified output. Non-amplified & other performance / mechanical / electrical / options available, consult factory for more information. Modifications may alter specs.

Ranges	0-5 thru 0-15,000 PSIA, PSIG, PSIV or PSISG options
Proof Pressure	1.5 X with (25 psia min.) 10 X optional
Burst Pressure	3.0 X (15 X optional)
Secondary Containment Rating	4,500 psi for ranges ≥50 psi, 2,400 psi for ranges <50 psi
Zero Balance / Span Balance	0.5% FSO Each
Static Accuracy RSS (Non-linearity, Hysteresis, Non-Repeatability)	<0.3% FSO RSS (0.1% FSO optional)
Non-Repeatability	<±0.1% FSO
Non-Linearity (Terminal)	<±0.2% FSO
Hysteresis	<±0.2% FSO
Thermal Error	Zero ±0.5% FSO / 100° F Span ±0.5% FSO / 100° F
Total Error Band (all 5 parameters)	1.3% FSO (1.0% optional)
Response Time	<4 ms
Excitation Voltage	3.5 to 15 Vdc
Output Impedance	5,000 ohms standard (350 ohms optional)
Load Impedance	230,000 ohms minimum for < ±0.1% FSO attenuation
Temperature Limits Compensated Operating	-10°F to +180°F (-23°C to +82°C) -20°F to +190°F (-29°C to +88°C)
Random Vibration	> 75 G RMS (20 Hz to 2,000 Hz)
Sinusoidal Vibration	7.5 G's from 5 Hz to 100 Hz
Shock	> 4,000 G's
Constant Acceleration	5 G's for 30 minutes
Wetted Parts	316 SST port & 17-4 PH SST sensor (Inconel, Hastelloy optional)
Pressure Port	MS 33656-4 (M) standard
Electrical Connector	PTIH-10-6P (MIL D38999 series) standard
Weight	4 oz. (some options may affect weight)
Design meets MIL-STD-810F requirement	12g

ORDERING GUIDE:

MODEL	OUTPUT	RANGE	PRESSURE TYPE	OPTIONS
●	+	●	+	●

Example: 7100-1-RH-A-CA/FD/GH

OUTPUT

1	3 mV/V
7	2 mV/V
8	10 mV/V
11	1 mV/V

PRESSURE RANGE (PSI)

PJ	0-5 *	RF	0-300
PN	0-10 *	RH	0-500
PP	0-15 *	RK	0-750
PR	0-20 *	RM	0-1,000
PO	0-25 *	RO	0-1,500
PV	0-50	RR	0-2,000
PZ	0-100	RV	0-5,000
RB	0-150	RX	0-7,500
RD	0-200	RZ	0-10,000
* CAN DIA 1.5"	SB		0-15,000

PRESSURE TYPE

A	Sealed Absolute, ref to vacuum
G	Gauge, ref to atmosphere
SG	Sealed Gauge, ref to 14.7 psia

Some options will affect dimensions, consult factory if important. Use the following codes to identify desired item.

OPTIONS

CONNECTORS

CA	PTIH-10-6P Bendix
CI	D38999/27YB98PN
DB	D38999/27YA35PN

PORTS

FA	MS33649-4, 7/16-20 (F)
FD	MS33656-4, 7/16-20 (M)
FJ	1/4 NPT (M)

MISC.

D	Improved Static Accuracy to 0.1% and Total Error Band to 1.0% (Not available <50 psi units)
GB	Alternate full scale outputs
GD	10 X Proof Pressure (may affect overall performance, not available with options D, GP, GF, GK & less than 50 psi units)
GF	Expanded process temperature range, -65 to 250° F Error Band 2.3% not available with option D
GH	100% Internal Shunt
GK	Inconel Pressure Cavity
GL	Cleaning for oxygen service
GP	Hastelloy Pressure Cavity
JA	100 ohm 2 wire Platinum RTD, 0.0385 alpha
JB	1000 ohm 2 wire Platinum RTD, 0.0385 alpha
ME	Shunt cal, 80% Internal
MR	Non-Standard Wiring
MK	350 ohm Gages