



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

AEROSPACE DIFFERENTIAL PRESSURE TRANSDUCER

Model 7400

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

FEATURES:

- 0-5 Vdc, 0-10 Vdc and 4-20 mA outputs
- High accuracy options
- Rugged, SST construction
- High static line pressure rating
- RTD temperature output option

Typical Applications:

- Ground Support Systems
- Ground & Engine Test
- Aircraft Systems / Avionics

Heritage Includes:

- Smith's Aerospace
- Northrop Grumman



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

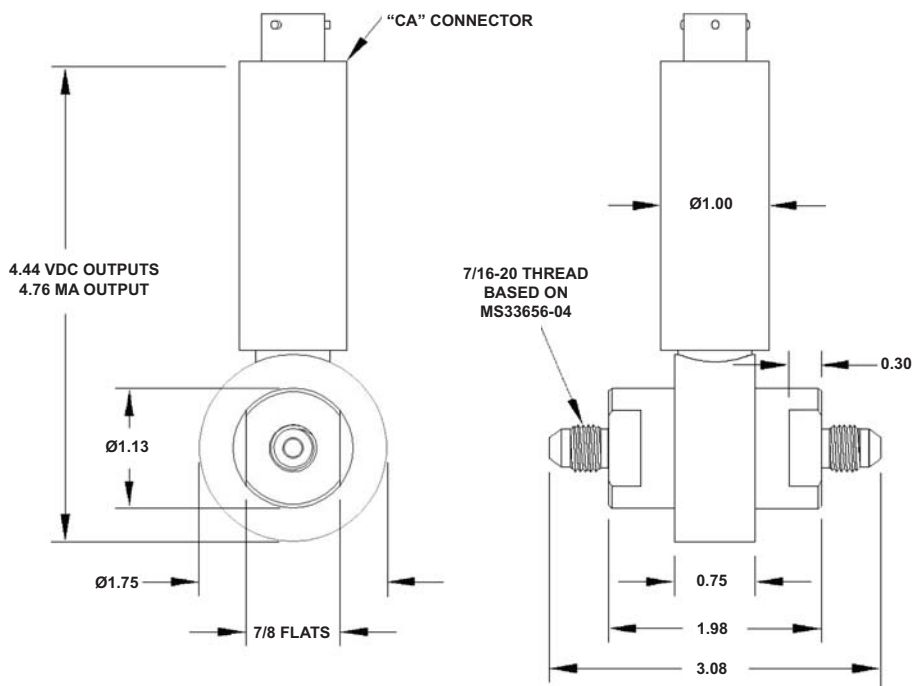
Designed to: MIL-STD-810 / MIL-STD-461

SEE INSTALLATION MANUAL FOR PINOUT ASSIGNMENT BASED ON ELECTRONICS OPTIONS

WIRING CODE

PIN	4-20 MA	4-WIRE MV/V & VDC ISOLATED	4- WIRE VDC NON-ISOLATED *	3-WIRE VDC
A/1	+EXC/SIG	+EXC	+EXC	+EXC
B/2	N/C	+SIG	+SIG	+SIG
C/3	N/C	-SIG	-SIG *	N/C
D/4	-EXC/SIG	-EXC	-EXC *	-EXC/-SIG
E/5	N/C	N/C	N/C	N/C
F/6	N/C	N/C	N/C	N/C

* COMMONS JUMPERED
STANDARD WIRING.
OPTIONS MAY AFFECT PIN OUT



A5SL-7400.00 Rev C

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, other improved performance / mechanical / electrical / options available, consult factory for more information. Modifications may alter specs.

Ranges	5 thru 7,500 PSID (Bi-directional or uni-directional)
Proof Pressure (High & Low side)	2 X Pressure Range or 10,000 psi whichever is less (Optional 10 X or 10,000 psi whichever is less)
Static Line Pressure	3,000 psi (10,000 psi available - HM option)
Burst Pressure (High & Low side)	3.0 X Pressure Range or 4,000 psi whichever is less (Optional 15 X or 10,500 psi whichever is less)
Zero Balance / Span Balance	±0.5% FSO Each
Static Accuracy (BFSL)	<±0.3% FSO
Non-Repeatability	<±0.1% FSO
Non-Linearity (BFSL)	<±0.2% FSO
Hysteresis	<±0.2% FSO
Thermal Error	Zero ±1.0% FSO / 100° F Span ±1.0% FSO / 100° F
Total Error Band (all 5 parameters)	±2.3% FSO
Line Pressure Effect (Zero)	<±1% FSO at 1,000 psi, <±2.5% FSO at 3,000 psi, (<±5% FSO at 10,000 psi - option HM)
Response Time	< 4 ms
Excitation	+18 thru +36 Vdc (others available)
Input Current	4-Wire Isolated Vdc Options - 45mA nominal / Non-Isolated Vdc -10mA nominal
Output Current (VDC Units)	2 mA max for <0.1% FSO attenuation
Load Impedance (4-20mA Units)	1,350 ohms max. at 36 Vdc, 750 ohms max. at 24 Vdc, 300 ohms max. at 18 Vdc
Temperature Limits Compensated Operating	40°F to +180°F (Other ranges available) 30°F to +190°F (-1°C to +88°C) (Other ranges available)
Wetted Parts	316 SST & 17-4 PH SST (Inconel or Hastelloy optional)
Pressure Port	MS 33656-4 (M) standard
Electrical Connector	PTIH-10-6P standard
Weight	1.5 lbs. standard (some options may affect weight)
Design meets MIL-STD-461/EMI/RFI	Some options may affect EMI/RFI rating
Oil Fill	Silicon Oil

ORDERING GUIDE:

MODEL	OUTPUT	RANGE	PRESSURE TYPE	OPTIONS
●	—	●	—	●

Example: 7400-2-RH-D-CA/FD/GH

OUTPUT

- 2 0-5 Vdc (Non-Isolated, 4 wire hookup)
- 3 4-20 dcmA (Recommended for long supply cable runs)
- 4 0-5 Vdc (Isolated, 4 wire hookup)
- 5 0-10 Vdc (Non-Isolated, 4 wire hookup)
- 6 0-10 Vdc (Isolated, 4 wire hookup)
- 9 0-5 Vdc (3 wire hookup)
- 10 0-10 Vdc (3 wire hookup)

Isolated= Input isolated from Output signal

PRESSURE RANGE (PSI) ** Option HM standard

PT 0-30	RM 0-1,000
PV 0-50	RO 0-1,500
PZ 0-100	RR 0-2,000
RB 0-150	RS 0-3,000 **
RD 0-200	RV 0-5,000 **
RF 0-300	RW 0-6,000 **
RH 0-500	RX 0-7,500 **
RK 0-750	

PRESSURE TYPE

D Differential

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)

MISC:

- GB Alternate full scale outputs
- GF Expanded process temperature range, 20 to 200°F (±2% FSO/100° F)
- 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
- MS Bi-Directional Allows for both positive and negative output, for option 3, 12mA Zero
- QU Monel 500 sensor, 400 wetted parts
- HM 10,000 psi Base Pressure Flange Girdle (not available with option GP)
- GD 10X PR for proof pressure (may affect overall performance, not available with options GP,GK,GF and less than 100psid ranges)
- REQUIRES HM OPTION
- MZ Add Mechanical Stop for >5X proof with 1%FSO zero balance