



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

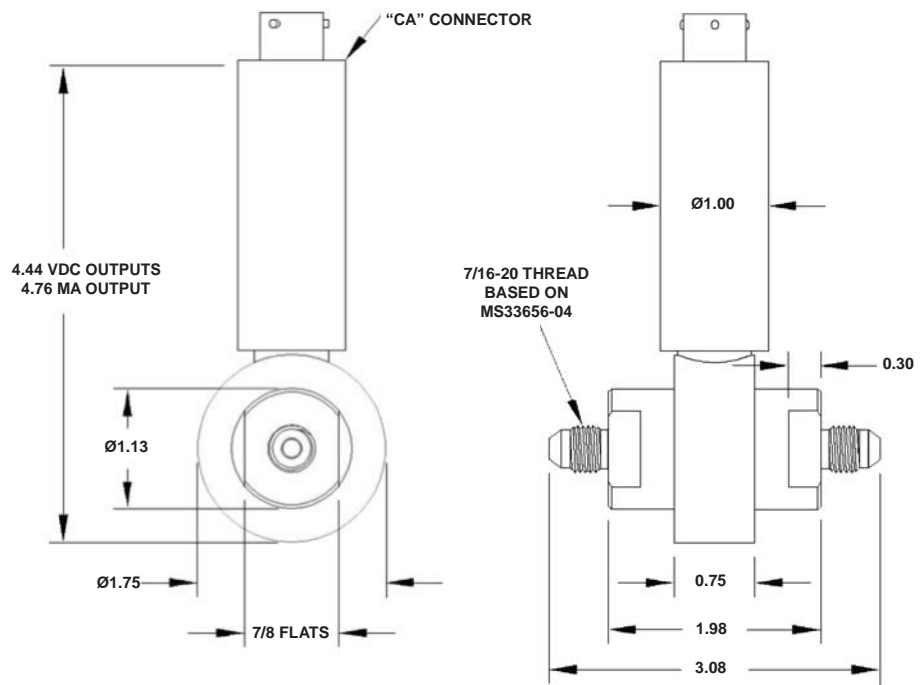
SEE INSTALLATION MANUAL FOR PINOUT ASSIGNMENT BASED ON ELECTRONICS OPTIONS

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



Pressure, Level & Temperature Transmitters & Transducers

U.K. Distributor; Interface Force Measurements

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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

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