



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

HIGH ACCURACY AEROSPACE DIFFERENTIAL PRESSURE TRANSDUCER

Model 8400 (RS232 Option)

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

FEATURES:

- Digital Correction provides accuracies of $\pm 0.10\%$ RSS ($\pm 0.08\%$ option)
- High static line rating up to 10,000 PSI options
- 0-5 Vdc, 0-10 Vdc and 4-20 mA outputs
- Serial communication (RS-232) options
- Rugged, SST construction
- Exotic wetted parts available
- Temperature output options

Typical Applications:

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

Heritage Includes

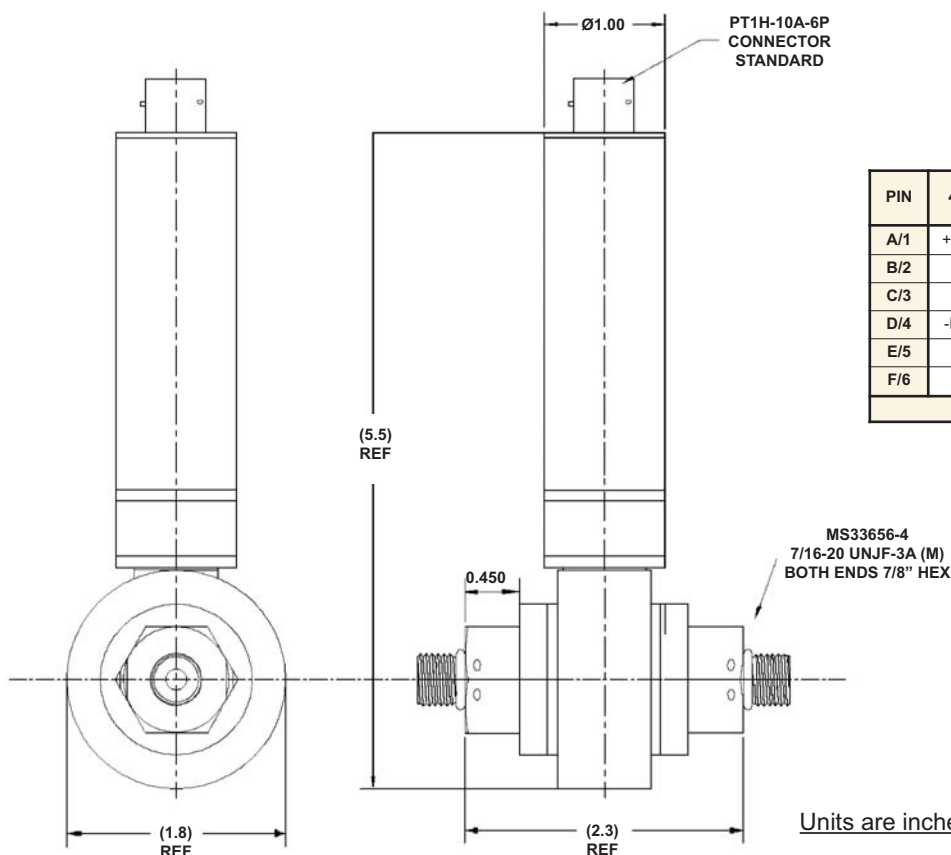
- Smith's Aerospace
- Northrop Grumman



GP:50 Aerospace transducers are manufactured and tested to the following MIL-STD and 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 JUMPED

STANDARD WIRING.
OPTIONS MAY AFFECT PIN OUT

Units are inches

A5SL-8400.00 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 10,500 psi whichever is less (Optional 10 X or 10,500 psi whichever is less)
Zero Balance / Span Balance	±0.5% FSO Each
Static Accuracy (BFSL)	<±0.1% FSO BFSL (±0.08% available)
Non-Repeatability	<±0.05% FSO
Non-Linearity (BFSL)	<±0.06% FSO
Hysteresis	<±0.06% FSO
Thermal Error	Zero ±0.5% FSO / 100° F Span ±0.5% FSO / 100° F
Total Error Band (all 5 parameters)	±1.1% 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	<500 ms for Vdc outputs units, <14 ms for 4-20 mA output (<14 ms for Vdc option - consult factory)
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	40°F to +180°F (Other ranges available)
Operating	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), (7/16-20) standard
Electrical Connector	PTIH-10-6P standard
Weight	1.5 lbs standard (some options may affect weight)
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: 8400-4-RH-A-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

RANGE (PSI) ** Option HM Standard

PJ 0-5	PZ 0-100	RO 0-1,500
PN 0-10	RB 0-150	RR 0-2,000
PP 0-15	RD 0-200	RS 0-3,000 **
PR 0-20	RF 0-300	RV 0-5,000 **
PO 0-25	RH 0-500	RW 0-6,000 **
PT 0-30	RK 0-750	RX 0-7,500 **
PV 0-50	RM 0-1,000	

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, -10 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 & negative output, for option 3, 12mA Zero
QU	Monel 500 sensor, 400 wetted parts
HM	10,000 psi Base Pressure Flange Girdle
GD	10X PR for proof pressure (may affect overall performance, not available w/ options GP, GK, GF and less than 100psid ranges) REQUIRES HM OPTION
MZ	Add Mechanical Stop for >5X proof with 1%FSO zero balance.