

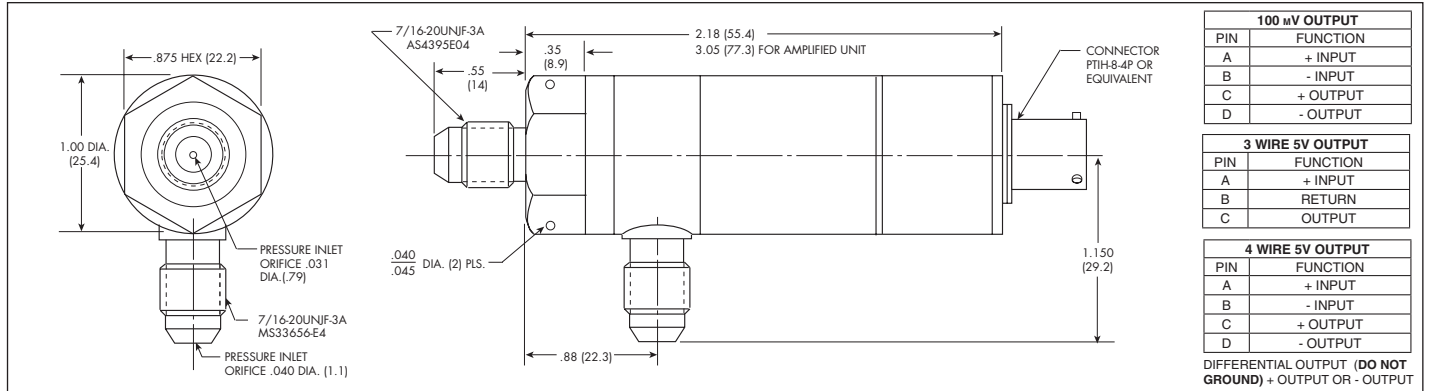
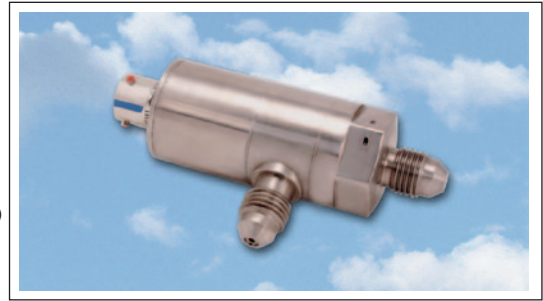


AIRCRAFT DIFFERENTIAL PRESSURE TRANSDUCER

APT-51HL-1000 Differential (100mV Output)

APTE-51HL-1000 Differential (5V Output)

- Developed For Use With High Line Pressure Compared To Low Differential Pressure
- Ideal For Measuring Pressure Drop Across Filters To Monitor Filter Clogging
- High Natural Frequencies
- Unprecedented Stability And Reliability To High Temperatures (Ruggedized Internal Construction)
- Leakproof, All Welded Construction (No Leak After Exposure To 2000°F 1093°C)
- Utmost In Safety (Secondary Containment Of Pressure Media)
- Fully Qualified (Passed Extensive Environmental Tests, RTCA/DO-160F)
- FAA Manufacturer's Maintenance Facility



SPECIFICATIONS	UNAMPLIFIED APT-SERIES	AMPLIFIED APTE SERIES
Excitation	10VDC Regulated	28VDC ± 4V
Output	100mV (Typ.)	5VDC Diff. or Single Ended
Power Consumption	100mW (Typ.)	280mW (Typ.)
Input Impedance	1000 Ohms (Min.)	N/A
Output Impedance	2000 Ohms (Max.)	100 Ohms (Max.)
Operating Temperature Range	-65°F to +300°F (-55°C to +150°C)	-65°F to +250°F (-55°C to +120°C)
Weight	0.45 Lb. (Max.)	0.6 Lb. (Max.)
Case Outline	Case Length May Vary With Range, Measuring Mode, Pressure Port and Connector	
Construction Materials	316 SS And 17-4 PH SS	
Pressure Range	To Specification 0-5 PSI to 0-1000 PSI (0-0.35 BAR to 0-70 BAR) (Typ.)	
Line Pressure	10 Times Scale Range, 2000 PSI (Max.)	
Proof Pressure	2 Times Rated Pressure Range, 1000 PSID (Max.)	
Burst Pressure	5 Times Rated Pressure Range, 1000 PSID (Max.)	
Insulation Resistance	100 Megohms Min. @ 50VDC	
Mounting Torque	75 Inch-Pounds (Max.)	
Total Error Band	± 2% FSO From 32°F (0°C) to 185°F (85°C), Increasing to ± 3% FSO at -65°F (-55°C) and +250°F (120°C), The APT Maintains ± 3% FSO to 300°F (150°C)	
Resolution	Infinitesimal	
MTBF	At Least 30,000 Hours	
Fluid Temperature	-65°F to +300°F (-55°C to +150°C)	
Storage Temperature Range (Non Operating)	-65°F to +185°F (-55°C to +85°C)	
Altitude-Operating	Up To 51,000 Feet	
Media Compatability	Main Port: JP-4 and JP-5 Grade Aviation Turbine Fuel Per MIL-T-5624, Hydraulic Fluid Per MIL-H-5606, MIL-H-83282, Engine and Transmission Lubrication Oil Per MIL-L-7808 and MIL-L-23699 and Aviation Gasoline Per MIL-G-5572 All Grades Reference Port: Clean Dry Gas	
Humidity	100% Relative Humidity	
Acceleration	Operational After Being Subjected to "G" Levels of 12 "G"s Per MIL-STD-810C, Method 513.2 Procedure 1	
Vibration	RTCA/DO-160F, Sec 8, Cat R, D & D1 Random Vibration Curves	
Mechanical Shock	RTCA/DO-160F, Sec 7, Cat B, 20g, 11 msec sawtooth shock	
Electromagnetic Interference	APTE SERIES: Meets RTCA DO-160 Sections 18, 19 and 21 All Cat. A, Section 20 Cat. U. (With Shielded Cable)	
Electrical Spike Protection	APTE SERIES: Unit Satisfies Power Input and Voltage Spike Conducted DO-160 Sections 16 and 17. Power Input Test 16 Voltage Spike Conducted Test 17	

Note: Custom pressure ranges, accuracies and mechanical configurations available.

Continuous development and refinement of our products may result in specification changes without notice - all dimensions nominal. (A)

TYPICAL ERROR BAND

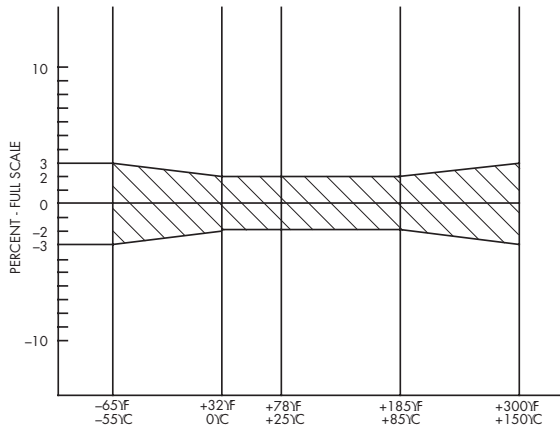


FIG I: TYPICAL ERROR BAND - UNAMPLIFIED UNIT

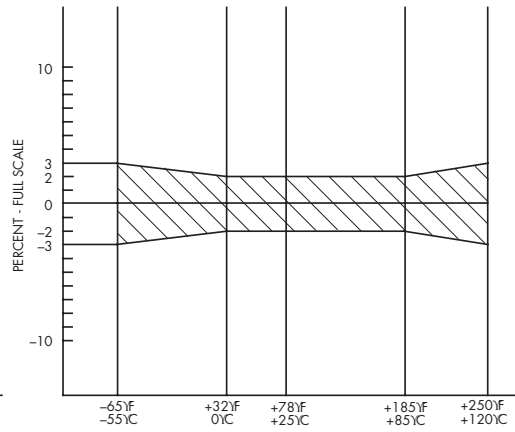
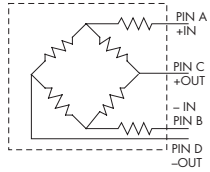


FIG II: TYPICAL ERROR BAND - AMPLIFIED UNIT

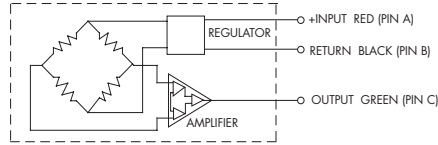
NOTE: OTHER TEMPERATURE RANGES AND TIGHTER SPECIFICATIONS ARE AVAILABLE.

WIRING

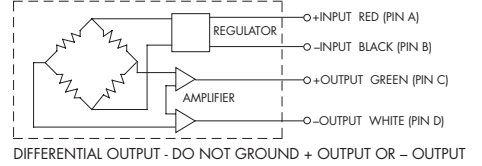
100 mV OUTPUT



3 WIRE 5V OUTPUT



4 WIRE 5V OUTPUT



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