

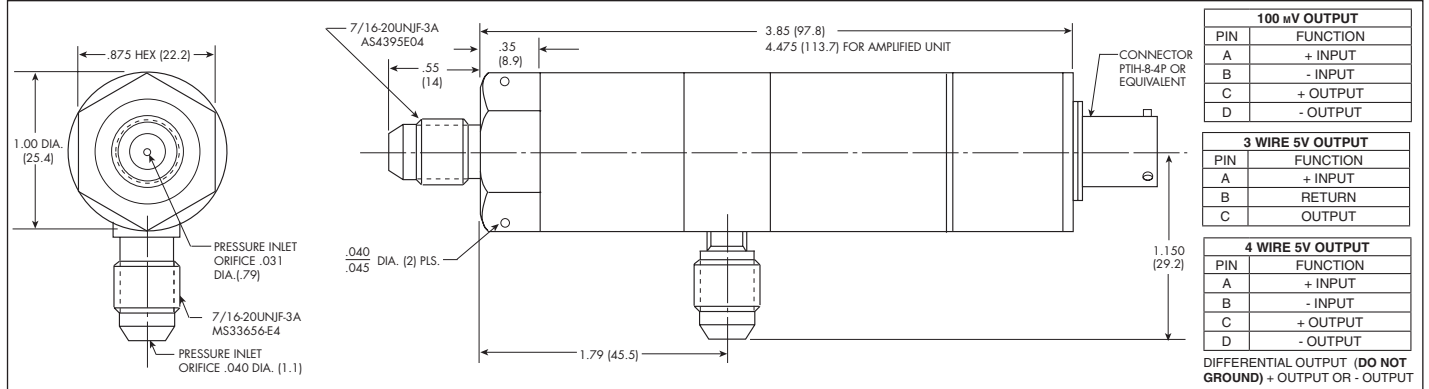
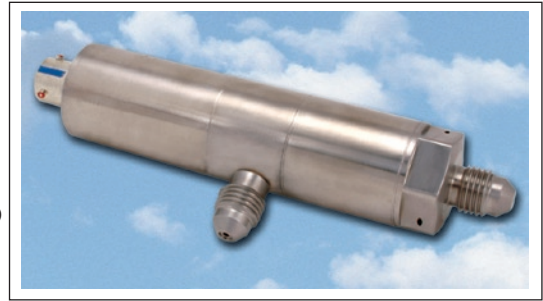


AIRCRAFT DIFFERENTIAL PRESSURE TRANSDUCER

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

APTE-51W-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 | < 25 PSI:50mV (Typ.), > 25 PSI: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 | |
| Proof Pressure | 2 Times Rated Pressure Range, 1000 PSI (Max.) | |
| Burst Pressure | 5 Times Rated Pressure Range, 1000 PSI (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 | 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 | |
| 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.

TYPICAL ERROR BAND

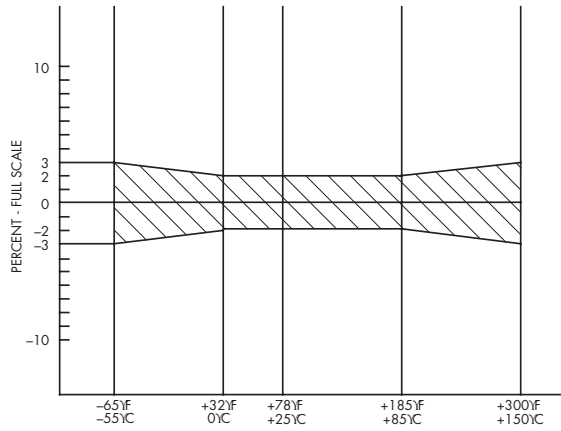


FIG I: TYPICAL ERROR BAND - UNAMPLIFIED UNIT

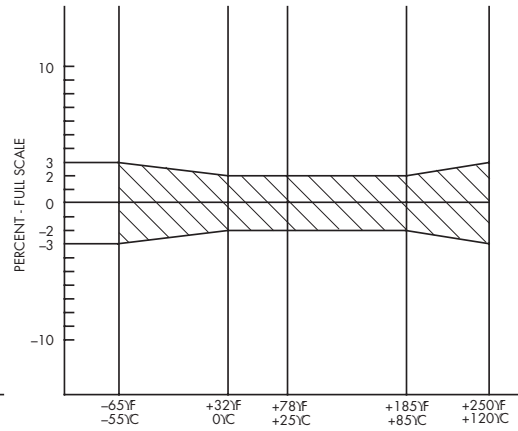
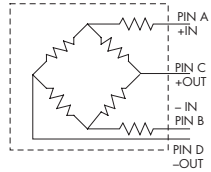


FIG II: TYPICAL ERROR BAND - AMPLIFIED UNIT

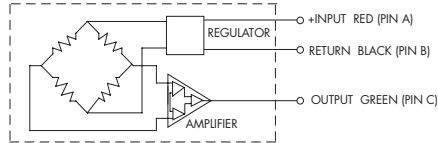
NOTE: OTHER TEMPERATURE RANGES AND TIGHTER SPECIFICATIONS ARE AVAILABLE.

WIRING

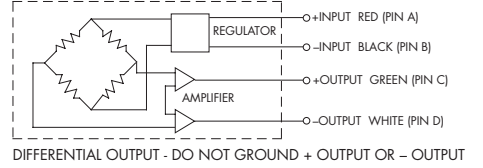
100 mV OUTPUT



3 WIRE 5V OUTPUT



4 WIRE 5V OUTPUT



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