



AIRCRAFT PRESSURE TRANSDUCER

- APT-20-1000 (100mV Output)**
- APT-51-1000 Differential (100mV Output)**
- APTE-6-1000 (5V Output)**
- APTE-51-1000 Differential (5V Output)**

- 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
- FAA Authorization TSO-C47
- 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 Gage and Absolute Versions Differential Version	0.3 Lb. (Max.) 0.45 Lb. (Max.)	0.37 Lb. (Max.) 0.6 Lb. (Max.)
Case Outline Gage and Absolute Versions Differential Version	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 0-15 PSI to 0-5000 PSI (0-1.0 BAR to 0-350 BAR) (Typ.)	
Proof Pressure	2 Times Rated Pressure Range	
Burst Pressure	5 Times Rated Pressure Range	
Insulation Resistance	100 Megohms Min. @ 50VDC	
Mounting Torque	75 Inch-pounds (Max.)	75 Inch-pounds (Max.)
Total Error Band	Includes Linearity, Hysteresis, Repeatability, Mounting Error and Vibration Effects, Thermal Errors Within The Compensated Temperature Range, As Well As Normalization Errors of Zero and Full Scale. (See Fig I and II For Typical Cases)	
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	
Linear Vibration	50g Peak, Sine 10 to 2000 Hz	
Mechanical Shock	100g half Sine Wave 1 msec. Duration	
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. (B)

TYPICAL ERROR BAND

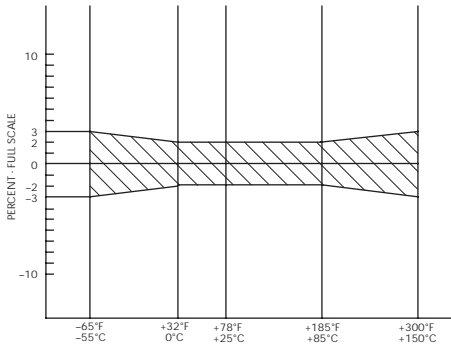


FIG I: TYPICAL ERROR BAND - UNAMPLIFIED UNIT

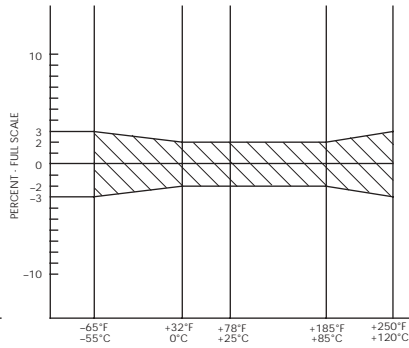
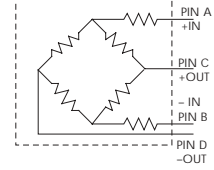


FIG II: TYPICAL ERROR BAND - AMPLIFIED UNIT

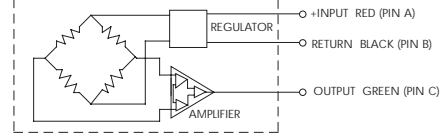
NOTE: OTHER TEMPERATURE RANGES AND TIGHTER SPECIFICATIONS ARE AVAILABLE.

WIRING

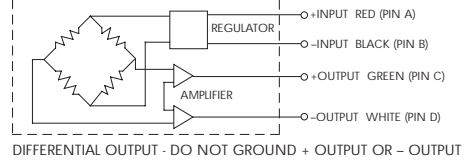
100 mV OUTPUT



3 WIRE 5V OUTPUT



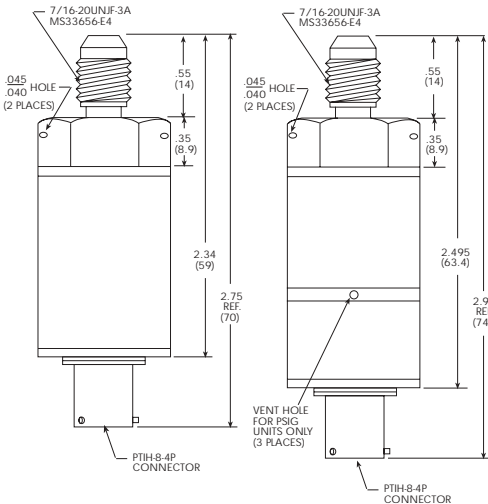
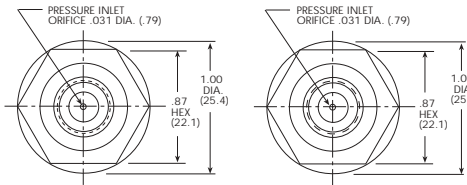
4 WIRE 5V OUTPUT



**APT-20-1000-XXX SERIES
TYPICAL UNAMPLIFIED VERSION**

ABSOLUTE, SEALED GAGE

VENTED GAGE

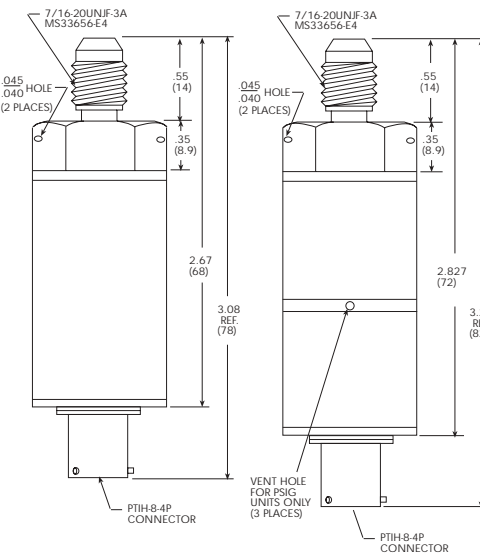
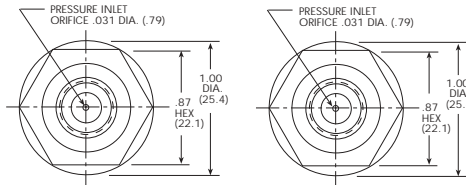


ALL DIMENSIONS TYPICAL

**APTE-6-1000-XXX SERIES
TYPICAL AMPLIFIED/REGULATED VERSION**

ABSOLUTE, SEALED GAGE

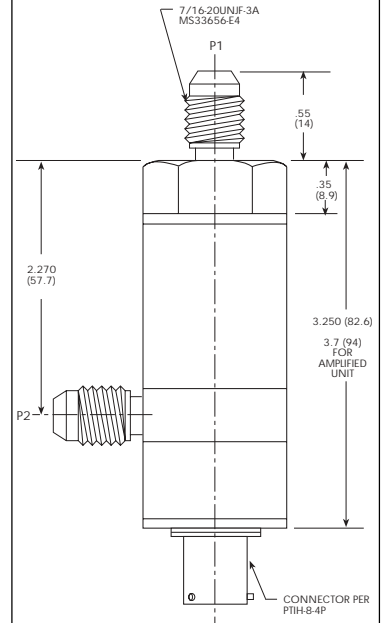
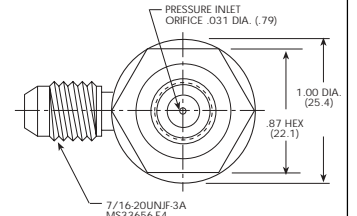
VENTED GAGE



ALL DIMENSIONS TYPICAL

**APT-51-1000-XX AND
APTE-51-1000-XX SERIES
TYPICAL UNAMPLIFIED
AND AMPLIFIED VERSIONS**

DIFFERENTIAL PRESSURE TRANSDUCER



ALL DIMENSIONS TYPICAL

Dimensions in () are in millimeters.

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

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