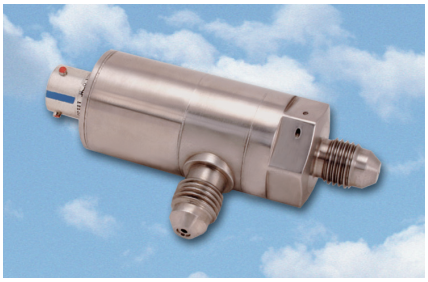
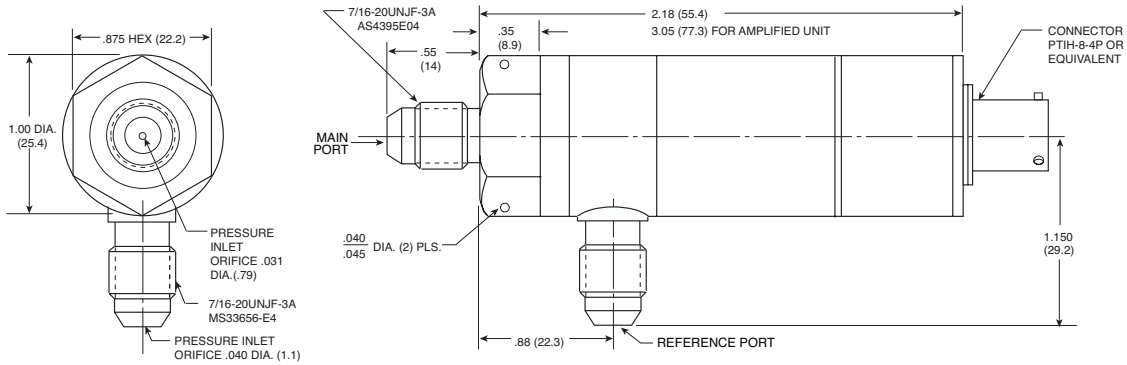
AIRCRAFT DIFFERENTIAL PRESSURE TRANSDUCER

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 Air Filters To Monitor Filter Clogging
- Commonly Used For Measuring Across Venturi Pressure Drops
- High Natural Frequencies
- 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)
- Unprecedented Stability And Reliability To High Temperatures (Ruggedized Internal Construction)





100 mV OUTPUT	
PIN	FUNCTION
A	+ INPUT
B	- INPUT
C	+ OUTPUT
D	- OUTPUT

3 WIRE 5V OUTPUT	
PIN	FUNCTION
A	+ INPUT
B	RETURN
C	OUTPUT

4 WIRE 5V OUTPUT	
PIN	FUNCTION
A	+ INPUT
B	- INPUT
C	+ OUTPUT
D	- OUTPUT

DIFFERENTIAL OUTPUT (**DO NOT GROUND**) + OUTPUT OR - OUTPUT

SPECIFICATIONS	UNAMPLIFIED APT-SERIES	AMPLIFIED APTE SERIES
Pressure Range	.7 1.7 3.5 7 17 BAR 10 25 50 100 250 PSI	
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	
Line Pressure	10 Times Rated Pressure, 2000 PSI Max. (138 Bar)	
Proof Pressure (Delta)	2 Times Rated Pressure Range	
Burst Pressure (Delta)	5 Times Rated Pressure Range	
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	Unaffected	
Media Compatibility	**Main Port:** Clean Dry Gas **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)	

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (I) Continuous development and refinement of our products may result in specification changes without notice.

KULITE SEMICONDUCTOR PRODUCTS, INC. • One Willow Tree Road • Leonia, New Jersey 07605 • Tel: 201 461-0900 • Fax: 201 461-0990 • http://www.kulite.com

TYPICAL ERROR BAND

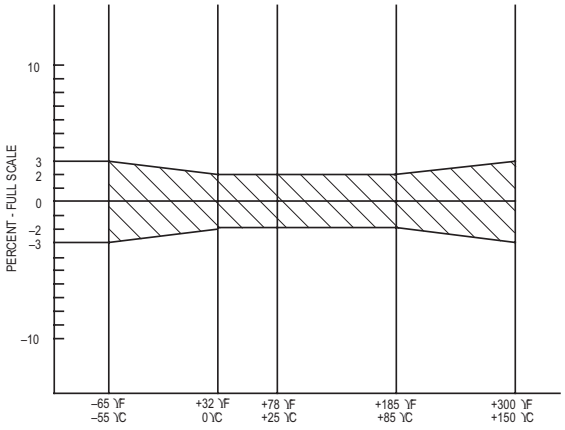


FIG 1: TYPICAL ERROR BAND - UNAMPLIFIED UNIT

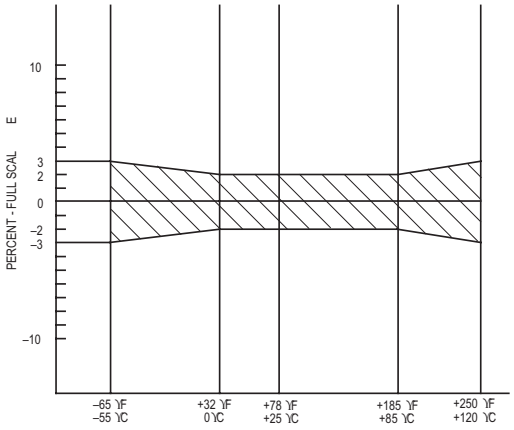
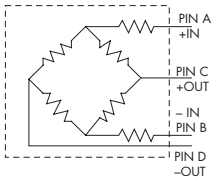


FIG II: TYPICAL ERROR BAND - AMPLIFIED UNIT

NOTE: OTHER TEMPERATURE RANGES AND TIGHTER SPECIFICATIONS ARE AVAILABLE.

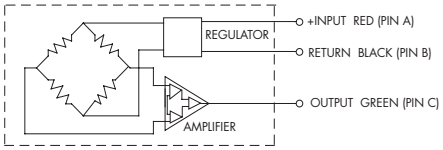
WIRING

0 - 100 mV OUTPUT



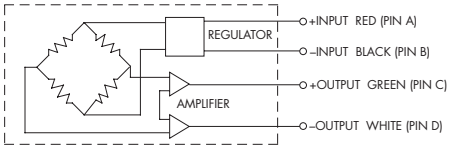
APT-51HL-1000

3 WIRE 0.5 - 5V OUTPUT



APTE-51HL-1000-XXXD-3

4 WIRE 0 - 5V OUTPUT



DIFFERENTIAL OUTPUT - DO NOT GROUND + OUTPUT OR – OUTPUT

APTE-51HL-1000-XXXD-4

*** Ordering Information**

3 Wire:
APTE-51HL-1000-XXXD-3
4 Wire:
APTE-51HL-1000-XXXD-4

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (H)