

5 VDC OUTPUT HIGH ACCURACY HIGH PRESSURE AIRCRAFT PRESSURE TRANSDUCER

APTE-743-1000

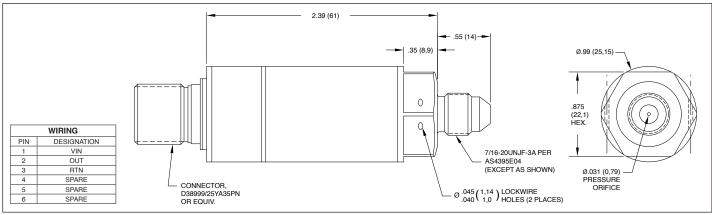
- 5 VDC Output
- Rugged All Welded Construction
- Excellent Long Term Stability
- Silicon on Silicon Integrated Sensor VIS®
- Analog Output
- · High Overload Capabilities

Intrinsically Safe
 Applications Available
 (i.e. IS-APTE-743-1000)



The ingenious application of modern solid state technology to pressure sensing makes the APTE-743-1000 Series the most advanced pressure transducer available of its class. Designed to measure liquid or gas pressure, the transducer is of all-welded stainless steel construction, with integral pressure port and isolation diaphragm. The APTE-743-1000 provides an extremely rugged, accurate and inexpensive means for pressure-to-voltage conversion. The output, and the ability to withstand high voltages between leads and case make the APTE-743-1000 Series Transducers ideally suited for a large number of high accuracy aircraft applications.





December Construction Construc		Pressure Range	70	140	200 BAR
Description	INPUT	Operational Mode	1000 2000 3000 PSI Absolute Sealed Gage		
Burst Pressure 5 Times Rated Pressure Range to a Maximum of 10000 PSI (690 BAR) Construction Materials Media Compatibility Rated Electrical Excitation Maximum Electrical Current Output Impedance Full Scale Output Residual Unbalance Total Error Band Amplifier Bandwidth (-3dB) Resolution Insulation Resistance Operating Temperature Range Compensated Temperature Range Compensated Temperature Range Linear Vibration Temperature Range Total Error Band Operating Temperature Range Compensated Temperature Range Linear Vibration Total Error Band Operating Temperature Range Compensated Temperature Range Total Error Band Operating Temperature Range Compensated Temperature Range Total Error Band Operating Temperature Range Compensated Temperature Range Total Error Band Operating Temperature Range Total Error Band Operating Temperature Range Operating Temperature Range Total Error Band Operating Temperature Range Operating Temperature Rang		'			
Construction Materials Media Compatibility Rated Electrical Excitation Maximum Electrical Current Output Impedance Full Scale Output Residual Unbalance Total Error Band Amplifier Bandwidth (-3dB) Resolution Insulation Resistance Departing Temperature Range Compensated Temperature Range Linear Vibration Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Total Error To					
Media Compatibility 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-23699 and Aviation Gasoline Per MIL-G-5572 All Grades					
Rated Electrical Excitation 12 ± 4 VDC or 28 ± 4 VDC		Construction Materials	15-5 PH or 316 SS		
Maximum Electrical Current Dutput Impedance So Ohms (Typ.)		Media Compatibility			
Output Impedance Full Scale Output Residual Unbalance Total Error Band Amplifier Bandwidth (-3dB) Resolution Insulation Resistance Operating Temperature Range Compensated Temperature Range Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Output Impedance Full Scale Output So VDC (End Point Settings, Combined Non-Linearity, Hysteresis, Repeatability and All Thermal Effects Included) DC to 10 KHz Infinitesimal Infinitesimal Insulation Resistance Operating Temperature Range Linear Vibration Operating Temperature Range Linear Vibration Operating Temperature Range Operating Temperature Range Linear Vibration Operating Temperature Range Operating Temperature Range Linear Vibration Operating Temperature Range Operating Temper		Rated Electrical Excitation	12 ± 4 VDC or 28 ± 4 VDC		
Full Scale Output Residual Unbalance Total Error Band Amplifier Bandwidth (-3dB) Resolution Insulation Resistance Operating Temperature Range Compensated Temperature Range Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Full Scale Output 5 VDC 0.5V 10.5% (End Point Settings, Combined Non-Linearity, Hysteresis, Repeatability and All Thermal Effects Included) DC to 10 KHz Infinitesimal 100 Megohm Min. © 50 VDC Operating Temperature Range -65°F to +250°F (-55°C to +120°C) -65°F to +250°F (-55°C to +120°C) -20g Peak, Sine 10 to 2000 Hz Humidity Mechanical Shock 20g half Sine Wave 11 msec. Duration 7/16-20 UNJF-3A 33656-E4 Electrical Connection D38999/25YA35PN Per AS4395E04 Weight Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Maximum Electrical Current	25 mA (Max.)		
Residual Unbalance Total Error Band Amplifier Bandwidth (-3dB) Resolution Insulation Resistance Operating Temperature Range Compensated Temperature Range Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Residual Unbalance 0.5V 10.5% (End Point Settings, Combined Non-Linearity, Hysteresis, Repeatability and All Thermal Effects Included) DC to 10 KHz Infinitesimal Infinitesimal 100 Megohm Min. @ 50 VDC Operating Temperature Range Compensated Temperature Range Linear Vibration 20g Peak, Sine 10 to 2000 Hz Humidity Mechanical Shock 20g half Sine Wave 11 msec. Duration 7/16-20 UNJF-3A 33656-E4 Electrical Connection D38999/25YA35PN Per AS4395E04 Weight Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon	OUTPUT	Output Impedance	50 Ohms (Typ.)		
Total Error Band Total Error Band (End Point Settings, Combined Non-Linearity, Hysteresis, Repeatability and All Thermal Effects Included)		Full Scale Output	5 VDC		
Amplifier Bandwidth (-3dB) Resolution Insulation Resistance Operating Temperature Range Compensated Temperature Range Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Weight Pressure Sensing Principle Amplifier Bandwidth (-3dB) Infinitesimal Infinite		Residual Unbalance	0.5V		
Amplifier Bandwidth (-3dB) Resolution Insulation Resistance Operating Temperature Range Compensated Temperature Range Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Weight Pressure Sensing Principle Amplifier Bandwidth (-3dB) Infinitesimal Infinite		Total Error Band			
Insulation Resistance Top Megohm Min. @ 50 VDC		Amplifier Bandwidth (-3dB)	DC to 10 KHz		
Operating Temperature Range Compensated Temperature Range Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Weight Pressure Sensing Principle Operating Temperature Range -65°F to +250°F (-55°C to +120°C) -65°F to +		Resolution	Infinitesimal		
Pressure Port Pressure Port 7/16-20 UNJF-3A 33656-E4		Insulation Resistance	100 Megohm Min. @ 50 VDC		
Pressure Port Pressure Port 7/16-20 UNJF-3A 33656-E4	ENVIRONMENTAL	Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)		
Pressure Port 7/16-20 UNJF-3A 33656-E4 Electrical Connection D38999/25YA35PN Per AS4395E04 Weight 120 Grams Approx. Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Compensated Temperature Range	-65°F to +250°F (-55°C to +120°C)		
Pressure Port 7/16-20 UNJF-3A 33656-E4 Electrical Connection D38999/25YA35PN Per AS4395E04 Weight 120 Grams Approx. Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Linear Vibration	20g Peak, Sine 10 to 2000 Hz		
Pressure Port 7/16-20 UNJF-3A 33656-E4 Electrical Connection D38999/25YA35PN Per AS4395E04 Weight 120 Grams Approx. Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Humidity	100% Relative Humidity		
Electrical Connection D38999/25YA35PN Per AS4395E04 Weight Pressure Sensing Principle Electrical Connection D38999/25YA35PN Per AS4395E04 120 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Mechanical Shock	20g half Sine Wave 11 msec. Duration		
	PHYSICAL	Pressure Port	7/16-20 UNJF-3A 33656-E4		
		Electrical Connection	D38999/25YA35PN Per AS4395E04		
		Weight	120 Grams Approx.		
Mounting Torque 80-100 Inch-Pounds (Max.)		Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		
		Mounting Torque	80-100 Inch-Pounds (Max.)		

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2025 Kulite Semiconductor Products, Inc. All Rights Reserved.