

TA231 Series

Dual Output Sensor, Temperature & Acceleration, Top Exit 3 Pin Connector,
10 mV/g, 10 mV/°C, ±10%



VIBRATION ANALYSIS HARDWARE



Product Features

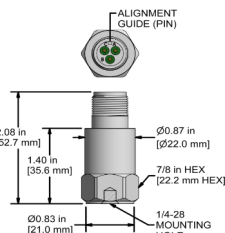
High Performance in a Low-Cost Sensor

Helps to Detect Bearing Defects and Temperature Changes

- ▶ Temperature (10 mV/°C) and Acceleration (10 mV/g) Outputs in One Sensor via a Standard 3 Pin MIL Connection
- ▶ Popularly Sold with SC300 Series Signal Conditioners with Built-In Temperature Output
- ▶ -6N Integral Cable Option Features Food Safe FDA Compliant 21 CFR 177.1330 Polyolefin Heat Shrink

TA231-1A 3 Pin Connector

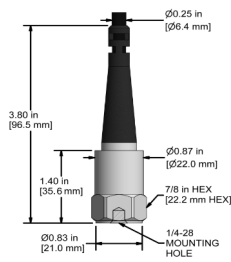
Connector	Polarity
Pin	
A	(+) Signal/Power
B	(-) Common
C	(+) Temperature Voltage



Stock Product

TA231-2A CB105 Integral Cable

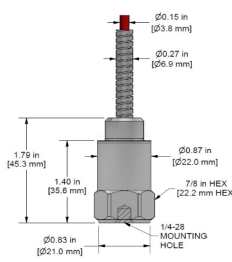
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

TA231-3A CB218 Armored Integral Cable

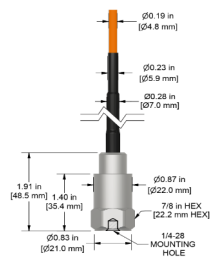
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

TA231-6N CB119 FEP Jacketed Integral Cable

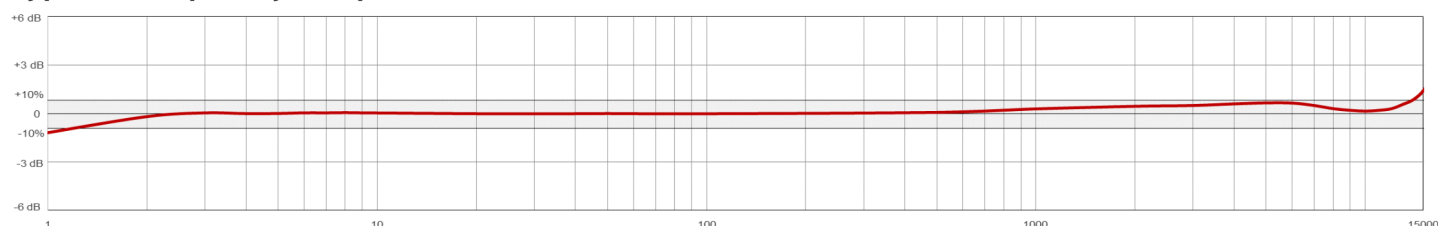
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TA231	M/ or M8/TA231	Environmental		
Sensitivity (±10%)	10 mV/g		Operating Temperature Range	-40 to 250 °F	-40 to 121 °C
Frequency Response (±3dB)	60-900,000 CPM	1,0-15000 Hz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	120-360,000 CPM	2,0-6000 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range	± 500 g, peak *Vsource ≥ 22V, 12Vbias		Sealing	IP68	
Temperature Measurement Range	-40 to 250 °F	-40 to 121 °C	Submersible Depth	200 ft.	60 m
Temperature Output	10 mV/°C		SIL Rating	SIL 2	
Temperature Sensor	750 mV ± 25 °C (±1)		Physical		
Transverse Sensitivity	≤5%		Sensing Element	PZT Ceramic	
Electrical			Sensing Structure	Shear Mode	
Settling Time	<2.5 seconds		Weight	3.2 oz	90 grams
Voltage Source	18-30 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Mounting Thread	1/4-28 Blind Tapped Hole	
Spectral Noise @ 10 Hz	14 µg/√Hz		Connector (Non-Integral)	3 Pin MIL-C-5015	
Spectral Noise @ 100 Hz	2.3 µg/√Hz		Resonant Frequency	1,380,000 CPM	23000 Hz
Spectral Noise @ 1000 Hz	2 µg/√Hz		Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Bias Output Voltage	10-14 VDC		Mounting Hardware Supplied	1/4-28 Stud	M6x1 or M8x1.25 Adapter Stud
Case Isolation	>10 ⁶ ohm		Calibration Certificate	CA10	

Typical Frequency Response



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