

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

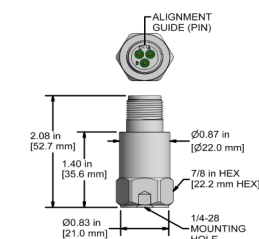
Helps to Detect Bearing Defects and Temperature Changes

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

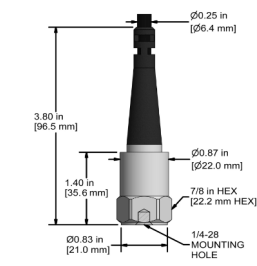


Stock Product

TA231-2A

CB105 Integral Cable

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

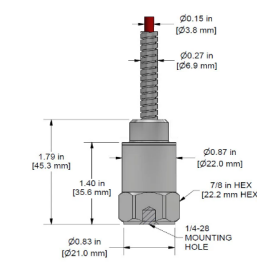


Built To Order

TA231-3A

CB218 Armored Integral Cable

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

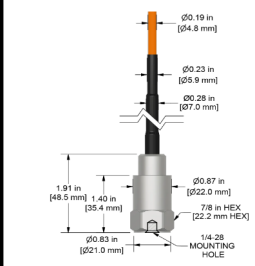


Built To Order

TA231-6N

CB119 FEP Jacketed Integral Cable

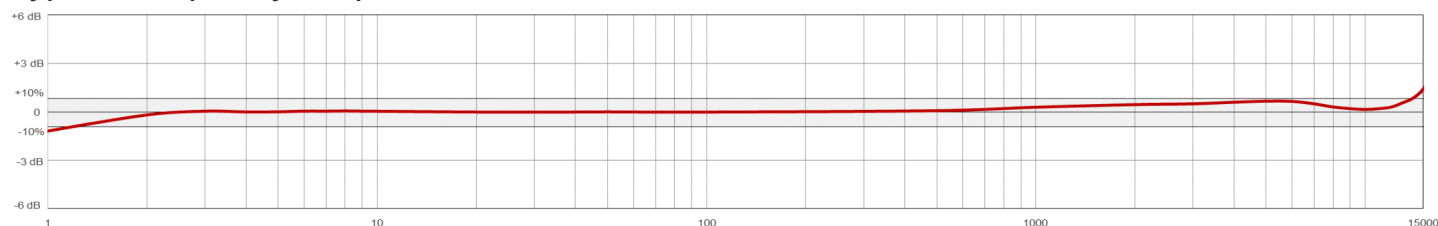
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TA231	M/ or M8/TA231	<u>Environmental</u>		
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	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)	<u>Physical</u>		
Transverse Sensitivity		≤5%	Sensing Element		PZT Ceramic
<u>Electrical</u>			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 ⁸ ohm	Calibration Certificate		CA10

Typical Frequency Response



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