

TA233 Series

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



VIBRATION ANALYSIS HARDWARE



Product Features

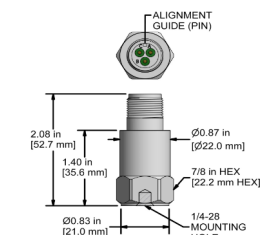
High Performance in a Low-Cost Sensor

Helps to Detect Bearing Defects and Temperature Changes

- ▶ Temperature (10 mV/°C) and Acceleration (500 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

TA233-1A 3 Pin Connector

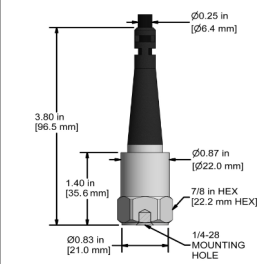
Connector	Polarity
Pin	
A	(+) Signal/Power
B	(-) Common
C	(+) Temperature Voltage



Stock Product

TA233-2A CB105 Integral Cable

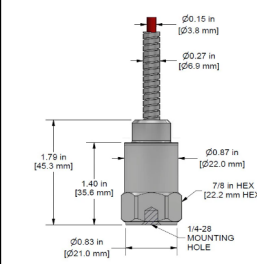
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

TA233-3A CB218 Amored Integral Cable

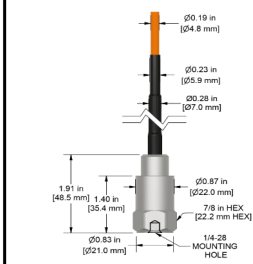
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

TA233-6N 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
Part Number	TA233	M/ or M8/TA233
Sensitivity (±10%)	500 mV/g	
Frequency Response (±3dB)	6-600,000 CPM	0.1-10000 Hz
Frequency Response (±10%)	36-180,000 CPM	0.6-3000 Hz
Dynamic Range	± 16 g, peak *Vsource ≥ 22V, 12Vbias	
Temperature Measurement Range	-40 to 250 °F	-40 to 121 °C
Temperature Output	10 mV/°C	
Temperature Sensor	750 mV = 25 °C (±1)	
Transverse Sensitivity	≤5%	
Electrical		
Settling Time	5 Seconds	
Voltage Source	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	14 µg/√Hz	
Spectral Noise @ 100 Hz	2.3 µg/√Hz	
Spectral Noise @ 1000 Hz	2.3 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁸ ohm	

Specifications	Standard	Metric
Environmental		
Operating Temperature Range	-40 to 250 °F	-40 to 121 °C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
SIL Rating	SIL 2	
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	3.7 oz	104 grams
Case Material	316L Stainless Steel	
Mounting Thread	1/4-28 Blind Tapped Hole	
Connector (Non-Integral)	3 Pin MIL-C-5015	
Resonant Frequency	960,000 CPM	16000 Hz
Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Mounting Hardware Supplied	1/4-28 Stud	M6x1 or M8x1.25 Adapter Stud
Calibration Certificate	CA10	

Typical Frequency Response

