

TA254 Series

Low Cost Dual Output Sensor, Temperature & Acceleration, Side Exit 3 Pin Connector, 100 mV/g, 10 mV/°C, ±15%



VIBRATION ANALYSIS HARDWARE



Product Features

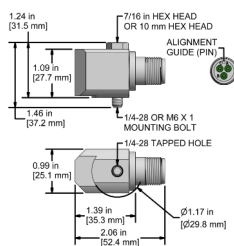
High Performance in a Low-Cost Sensor

Helps to Detect Bearing Defects and Temperature Changes

- ▶ Temperature (10 mV/°C) and Acceleration (100 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

TA254-1A 3 Pin Connector

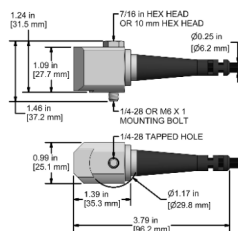
Connector Pin	Polarity
A	(+) Signal/Power
B	(-) Common
C	(+) Temperature Voltage



Stock Product

TA254-2A CB105 Integral Cable

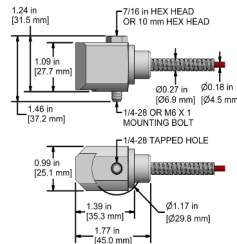
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

TA254-3A CB218 Amored Integral Cable

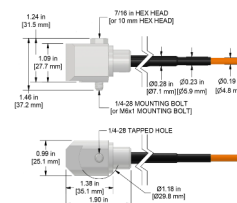
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



Built To Order

TA254-6N 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	TA254		Environmental		
Sensitivity (±15%)		100 mV/g	Operating Temperature Range	-40 to 250°F	-40 to 121°C
Frequency Response (±3dB)	30-420,000 CPM	0.5-7000 Hz	Maximum Shock Protection		5,000 g, peak
Dynamic Range		± 80 g, peak *Vsource ≥ 22V, 12Vbias	Electromagnetic Sensitivity		CE
Temperature Measurement Range	-40 to 250 °F	-40 to 121 °C	Sealing		IP68
Temperature Output		10 mV/°C	Submersible Depth	200 ft.	60 m
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	5.6 oz	160 grams
Voltage Source		18-30 VDC	Case Material		316L Stainless Steel
Constant Current Excitation		2-10 mA	Connector (Non-Integral)		3 Pin MIL-C-5015
Spectral Noise @ 10 Hz		14 µg/√Hz	Resonant Frequency	1,260,000 CPM	21000 Hz
Spectral Noise @ 100 Hz		2.3 µg/√Hz	Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Spectral Noise @ 1000 Hz		2 µg/√Hz	Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
Output Impedance		<100 ohm	Calibration Certificate		CA10
Bias Output Voltage		10-14 VDC			
Case Isolation		>10 ⁸ ohm			

Typical Frequency Response

