

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

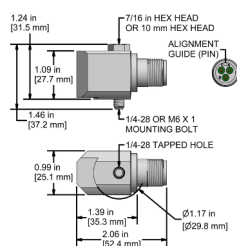
Helps to Detect Bearing Defects and Temperature Changes

- ▶ 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

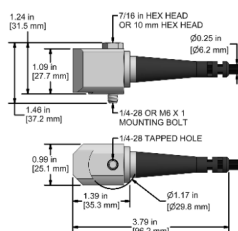


Stock Product

TA254-2A

CB105 Integral Cable

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

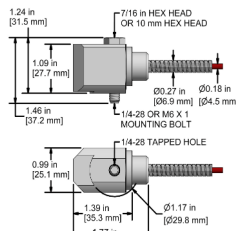


Built To Order

TA254-3A

CB218 Amored Integral Cable

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

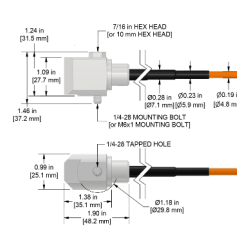


Built To Order

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		Electromagnetic Sensitivity	CE	
	*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		Physical		
Temperature Sensor	750 mV = 25 °C (±1)		Sensing Element	PZT Ceramic	
Transverse Sensitivity	≤5%		Sensing Structure	Shear Mode	
Electrical			Weight	5.6 oz	160 grams
Settling Time	<2.5 seconds		Case Material	316L Stainless Steel	
Voltage Source	18-30 VDC		Connector (Non-Integral)	3 Pin MIL-C-5015	
Constant Current Excitation	2-10 mA		Resonant Frequency	1,260,000 CPM	21000 Hz
Spectral Noise @ 10 Hz	14 µg/√Hz		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Spectral Noise @ 100 Hz	2.3 µg/√Hz		Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
Spectral Noise @ 1000 Hz	2 µg/√Hz		Calibration Certificate	CA10	
Output Impedance	<100 ohm				
Bias Output Voltage	10-14 VDC				
Case Isolation	>10 ⁸ ohm				

Typical Frequency Response

