

TA253 Series

Low Cost, Low G, Dual Output Sensor, Temperature & Acceleration, Top Exit
3 Pin Connector, 500 mV/g, 10 mV/°C, ±15%



VIBRATION ANALYSIS HARDWARE



Product Features

High Performance in a Low-Cost Sensor

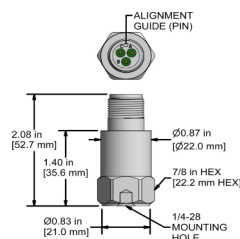
Helps to Detect Bearing Defects and Temperature Changes

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

TA253-1A

3 Pin Connector

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

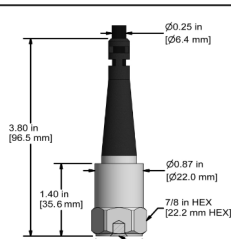


Stock Product

TA253-2A

CB105 Integral Cable

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

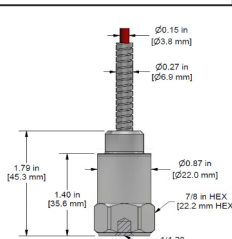


Built To Order

TA253-3A

CB218 Amored Integral Cable

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

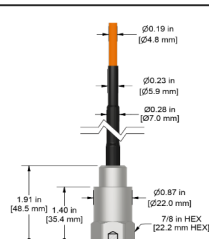


Built To Order

TA253-6N

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	TA253	M/ or M8/TA253	Environmental		
Sensitivity (±15%)		500 mV/g	Operating Temperature Range	-40 to 250 °F	-40 to 121 °C
Frequency Response (±3dB)	6-600,000 CPM	0.1-10000 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range		± 16 g, peak *Vsource ≥ 22V, 12Vbias	Sealing	Welded, Hermetic	
Temperature Measurement Range	-40 to 250 °F	-40 to 121 °C	Physical		
Temperature Output		10 mV/°C	Sensing Element	PZT Ceramic	
Transverse Sensitivity		≤5%	Sensing Structure	Shear Mode	
Electrical			Weight	3.7 oz	104 grams
Settling Time	5 Seconds		Case Material	316L Stainless Steel	
Voltage Source	18-30 VDC		Mounting Thread	1/4-28 Blind Tapped Hole	
Constant Current Excitation	2-10 mA		Connector (Non-Integral)	3 Pin MIL-C-5015	
Spectral Noise @ 10 Hz	1.7 µg/√Hz		Resonant Frequency	960,000 CPM	16000 Hz
Spectral Noise @ 100 Hz	.2 µg/√Hz		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Spectral Noise @ 1000 Hz	.12 µg/√Hz		Mounting Hardware Supplied	1/4-28 Stud	M6x1 or M8x1.25 Adapter Stud
Output Impedance	<100 ohm		Calibration Certificate	CA10	
Bias Output Voltage	10-14 VDC				
Case Isolation	>10 ⁸ ohm				

Typical Frequency Response

