

TXEA331-VE Series

Premium, Piezo Velocity Triaxial Sensor, Side Exit 4 Pin Connector, Follows Cartesian Phase Coordinate System, 100 mV/in/sec, $\pm 5\%$



VIBRATION ANALYSIS HARDWARE



Product Features

Collect Three Channels of Data Simultaneously for Faster Data Collection

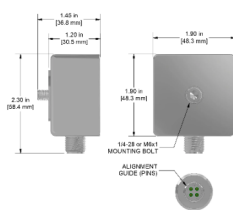
Follows Cartesian Coordinate Phase Configuration (Right-Hand Rule)

- Integrates to Velocity in the Sensor
- TXEA331-VE Mini-MIL Connector Exit Option Compatible CTC J Series Mini-MIL Connectors
- TXEA231-VE M12 Connector Exit Option Compatible with CTC M4 Series Connectors

TXEA231-VE

4 Pin M12 Connector

Connector Pin	Polarity
1 (Axis Y)	(+) Signal/Power
2 (Axis X)	(+) Signal/Power
3 (Axis Z)	(+) Signal/Power
4	(-) Common

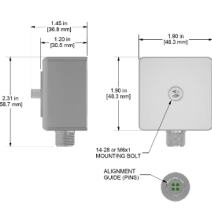


Stock Product

TXEA331-VE

4 Pin Mini-MIL Connector

Connector Pin	Polarity
A (Axis Y)	(+) Signal/Power
B (Axis X)	(+) Signal/Power
C (Axis Z)	(+) Signal/Power
D	(-) Common

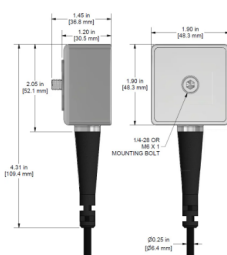


Stock Product

TXEA431-VE

CB105 Integral Cable

Conductor	Polarity
Red (Axis Y)	(+) Signal/Power
Green (Axis X)	(+) Signal/Power
White (Axis Z)	(+) Signal/Power
Black	(-) Common/GND

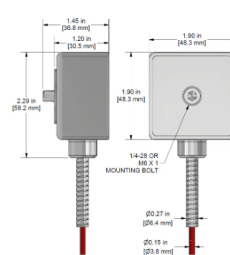


Built To Order

TXEA531-VE

CB218 Armored Integral Cable

Conductor	Polarity
Red (Axis Y)	(+) Signal/Power
Green (Axis X)	(+) Signal/Power
White (Axis Z)	(+) Signal/Power
Black	(-) Common/GND



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TXEA331-VE	M/TXEA331-VE	<u>Environmental</u>		
Sensitivity ($\pm 5\%$)		100 mV/in/sec	Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	60 to 270,000 CPM	1Hz to 4.5kHz	Maximum Shock Protection		5,000 g, peak
Frequency Response ($\pm 10\%$)	120 to 240,000 CPM	2Hz to 4kHz	Electromagnetic Sensitivity		CE
Dynamic Range		± 50 in/sec. pk *Vsource $\geq 22\text{V}$, 12Vbias	Sealing		Welded, Hermetic
Transverse Sensitivity		$\leq 5\%$	SIL Rating		SIL 2
<u>Electrical</u>			<u>Physical</u>		
Settling Time		<4 seconds	Sensing Element		PZT Ceramic
Voltage Source		18-30 VDC	Sensing Structure		Shear Mode
Constant Current Excitation		2-10 mA	Weight	13.4 oz	380 grams
Spectral Noise @ 10 Hz		25 $\mu\text{IPS}/\sqrt{\text{Hz}}$	Case Material		316L Stainless Steel
Spectral Noise @ 100 Hz		2 $\mu\text{IPS}/\sqrt{\text{Hz}}$	Connector (Non-Integral)		TXEA331-VE 4 Pin Mini-MIL TXEA231-VE 4 Pin M12
Spectral Noise @ 1000 Hz		0.5 $\mu\text{IPS}/\sqrt{\text{Hz}}$	Resonant Frequency	720,000 CPM	12 kHz
Output Impedance		<100 ohm	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 Captive Bolt	M6x1 Captive Bolt
Case Isolation		>10 ⁸ ohm	Calibration Certificate		CA10

Typical Frequency Response

