

TXEA331-VE Series

Premium Piezo Velocity Triaxial Sensor, Side Exit 4 Pin Connector, 100 mV/in/sec, ±5%



VIBRATION ANALYSIS HARDWARE



Product Features

Collect 3 Channels of Data Simultaneously for Faster Data Collection

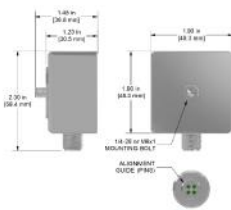
Follows Cartesian Coordinate Phase Configuration (Right Hand Rule)

- ▶ Integrates to Velocity in the Sensor
- ▶ Mini-MIL Connector Exit Option Compatible CTC J Series Mini-MIL Connectors
- ▶ 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

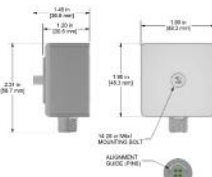


Stock Product

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/Grid

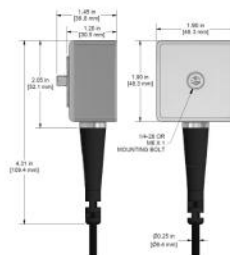


Stock Product

TXEA431-VE

CB105 Integral Cable

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

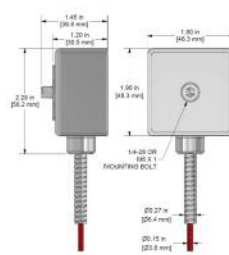


Built To Order

TXEA531-VE

CB218 Armored Integral Cable

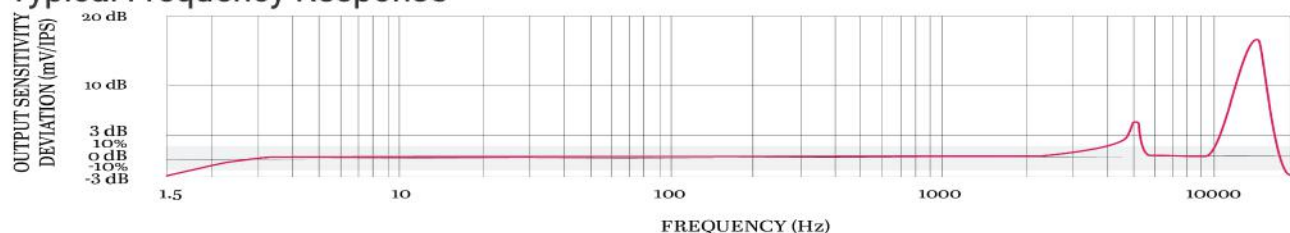
Conductor	Polarity
Red (Axis Y)	(+) Signal/Power
Green (Axis X)	(+) Signal/Power
White (Axis Z)	(+) Signal/Power
Black	(-) Common/Grid



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TXEA331-VE	M/TXEA331-VE	Environmental		
Sensitivity (±5%)	100 mV/in/sec		Operating Temperature Range	-58 to 250°F	-50 to 121°C
Frequency Response (±3dB)	60 to 270,000 CPM	1Hz to 4.5kHz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	120 to 240,000 CPM	2Hz to 4kHz	Electromagnetic Sensitivity	CE	
Dynamic Range	± 50 in/sec. pk		Sealing	Welded, Hermetic	
Electrical			SIL Rating	SIL 2	
Settling Time	<4 seconds		Physical		
Voltage Source (IEPE)	18-30 VDC		Sensing Element	PZT Ceramic	
Constant Current Excitation	2-10 mA		Sensing Structure	Shear Mode	
Spectral Noise @ 10 Hz	25 µIPS/√Hz		Weight	13.4 oz	380 grams
Spectral Noise @ 100 Hz	2 µIPS/√Hz		Case Material	316L Stainless Steel	
Spectral Noise @ 1000 Hz	0.5 µIPS/√Hz		Connector (Non-Integral)	4 Pin Mini-MIL or 4 Pin M12	
Output Impedance	<100 ohm		Resonant Frequency	720,000 CPM	12 kHz
Bias Output Voltage	10-14 VDC		Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Case Isolation	>10 ⁸ ohm		Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
			Calibration Certificate	CA10	

Typical Frequency Response



Backed by our Unconditional Lifetime Warranty

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TXEA333-VE Series

Low Cost, Piezo Velocity Triaxial Sensor, Side Exit 4 Pin Connector, 100 mV/in/sec, $\pm 15\%$



VIBRATION ANALYSIS HARDWARE



Product Features

Collect 3 Channels of Data Simultaneously for Faster Data Collection

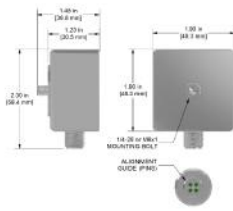
Follows Cartesian Coordinate Phase Configuration (Right Hand Rule)

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

TXEA233-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

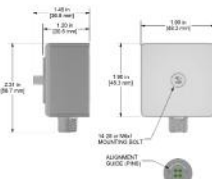


Stock Product

TXEA333-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/Grid

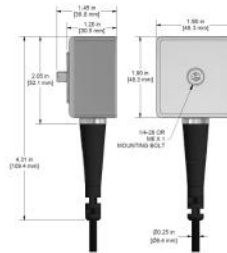


Stock Product

TXEA433-VE

CB105 Integral Cable

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

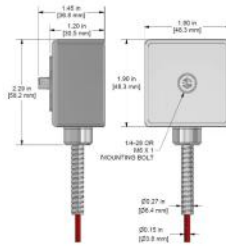


Built To Order

TXEA533-VE

CB218 Armored Integral Cable

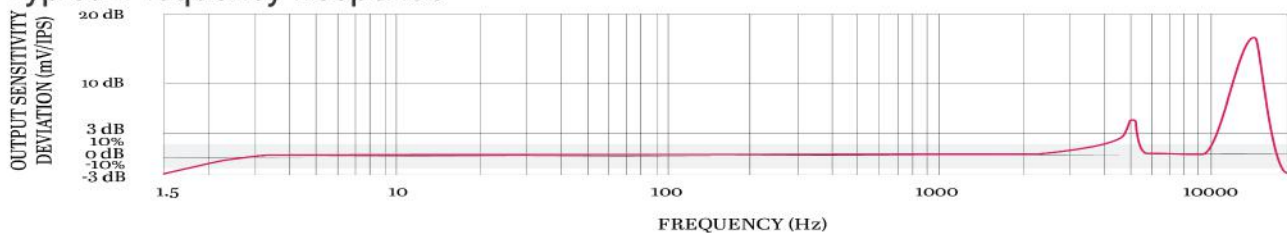
Conductor	Polarity
Red (Axis Y)	(+) Signal/Power
Green (Axis X)	(+) Signal/Power
White (Axis Z)	(+) Signal/Power
Black	(-) Common/Grid



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TXEA333-VE	M/TXEA333-VE	Environmental		
Sensitivity ($\pm 15\%$)		100 mV/g	Operating Temperature Range	-58 to 250°F	-50 to 121°C
Frequency Response ($\pm 3\text{dB}$)	60 to 270,000 CPM	1 Hz to 4.5 kHz	Maximum Shock Protection		5,000 g, peak
Frequency Response ($\pm 10\%$)	120 to 240,000 CPM	2 Hz to 4 kHz	Electromagnetic Sensitivity		CE
Dynamic Range		± 50 in/sec. pk	Sealing		Welded, Hermetic
Electrical			SIL Rating		SIL 2
Settling Time		<4 seconds	Physical		
Voltage Source (IEPE)		18-30 VDC	Sensing Element		PZT Ceramic
Constant Current Excitation		2-10 mA	Sensing Structure		Shear Mode
Spectral Noise @ 10 Hz		25 $\mu\text{IPS}/\sqrt{\text{Hz}}$	Weight	13.4 oz	380 grams
Spectral Noise @ 100 Hz		2 $\mu\text{IPS}/\sqrt{\text{Hz}}$	Case Material		316L Stainless Steel
Spectral Noise @ 1000 Hz		0.5 $\mu\text{IPS}/\sqrt{\text{Hz}}$	Connector (Non-Integral)		4 Pin Mini MIL or 4 Pin M12
Output Impedance		<100 ohm	Resonant Frequency	720,000 CPM	12 kHz
Bias Output Voltage		10-14 VDC	Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Case Isolation		>10 ⁸ ohm	Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
			Calibration Certificate		CA10

Typical Frequency Response



Backed by our Unconditional Lifetime Warranty

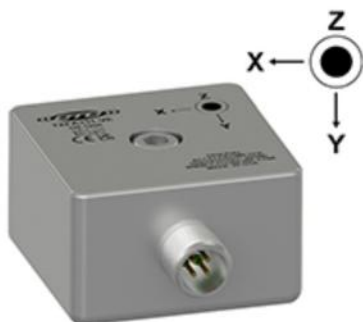
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TXFA331-VE Series

Premium Low Frequency, Piezo Velocity Triaxial Sensor, Side Exit 4 Pin Connector, 500 mV/in/sec ±5%



VIBRATION ANALYSIS HARDWARE



Product Features

Collect 3 Channels of Data Simultaneously for Faster Data Collection

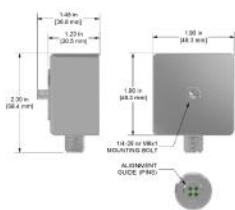
Follows Cartesian Coordinate Phase Configuration (Right Hand Rule)

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

TXFA231-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

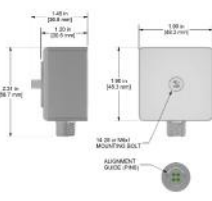


Stock Product

TXFA331-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/Grid

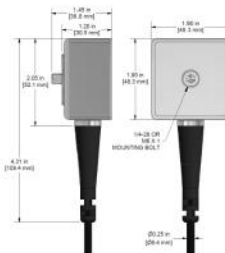


Stock Product

TXFA431-VE

CB105 Integral Cable

Conductor	Polarity
Red (Axis Y)	(+) Signal/Power
Green (Axis X)	(+) Signal/Power
C (Axis Z)	(+) Signal/Power
D	(-) Common/Grid

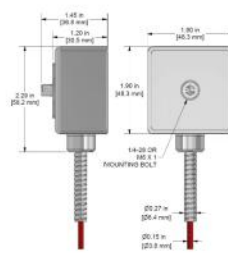


Built To Order

TXFA531-VE

CB218 Armored Integral Cable

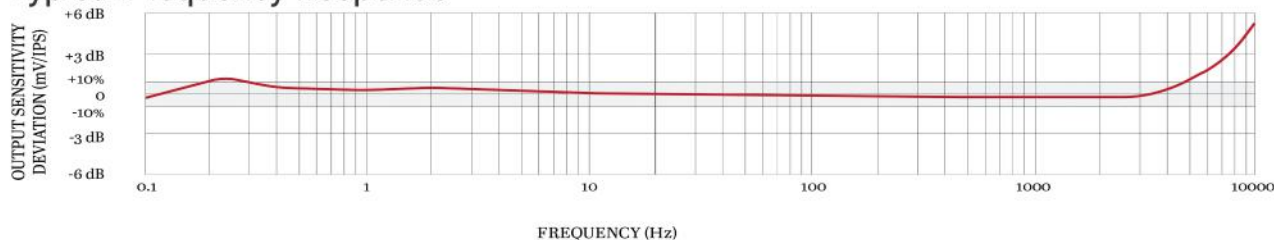
Conductor	Polarity
Red (Axis Y)	(+) Signal/Power
Green (Axis X)	(+) Signal/Power
C (Axis Z)	(+) Signal/Power
D	(-) Common/Grid



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TXFA331-VE	M/TXFA331-VE	<u>Environmental</u>		
Sensitivity (±5%)	500 mV/in/sec		Operating Temperature Range	-58 to 250°F	-50 to 121°C
Frequency Response (±3dB)	60 to 270,000 CPM	1 Hz to 4.5 kHz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	120 to 240,000 CPM	2 Hz to 4 kHz	Electromagnetic Sensitivity	CE	
Dynamic Range	+10 in/sec pk		Sealing	Welded, Hermetic	
<u>Electrical</u>			SIL Rating	SIL 2	
Settling Time	<4 Seconds		<u>Physical</u>		
Voltage Source (IEPE)	18-30 VDC		Sensing Element	PZT Ceramic	
Constant Current Excitation	2-10 mA		Sensing Structure	Shear Mode	
Spectral Noise @ 10 Hz	200 μ IPS/√Hz		Weight	13.4 oz	380 grams
Spectral Noise @ 100 Hz	6 μ IPS/√Hz		Case Material	316L Stainless Steel	
Spectral Noise @ 1000 Hz	0.7 μ IPS/√Hz		Connector (Non-Integral)	4 Pin Mini-MIL or 4 Pin M12	
Output Impedance	<100 ohm		Resonant Frequency	720,000 CPM	12 kHz
Bias Output Voltage	10-14 VDC		Mounting Torque	2 to 5 ft. lbs	2.7 to 6.8 Nm
Case Isolation	>10 ⁸ ohm		Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
			Calibration Certificate	CA10	

Typical Frequency Response



Backed by our Unconditional Lifetime Warranty

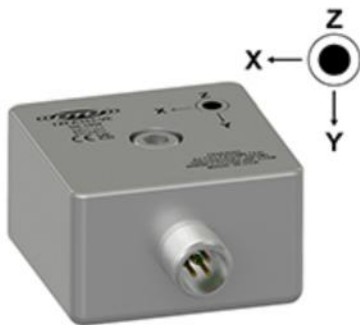
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TXFA333-VE Series



Low Cost, Low Frequency, Piezo Velocity Triaxial Sensor, Side Exit 4 Pin Connector, 500 mV/in/sec $\pm 15\%$

VIBRATION ANALYSIS HARDWARE



Product Features

500 mV/in/sec (20 mV/mm/sec) Sensitivity

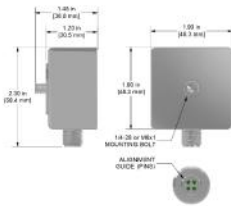
Phase conforms to cartesian coordinate system (right hand rule)

- ▶ Must use J4A, J4C, J4N, J4R or VJ4R connectors, or M4R connector for M12 option, & CB105, CB117, CB119 or CB218 cables
- ▶ Integrates to Velocity in the Sensor

TXFA231-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

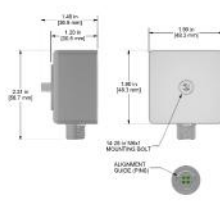


Stock Product

TXFA333-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/Grid

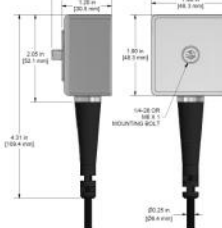


Stock Product

TXFA433-VE

CB105 Integral Cable

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

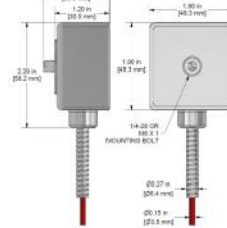


Built To Order

TXFA533-VE

CB218 Armored Integral Cable

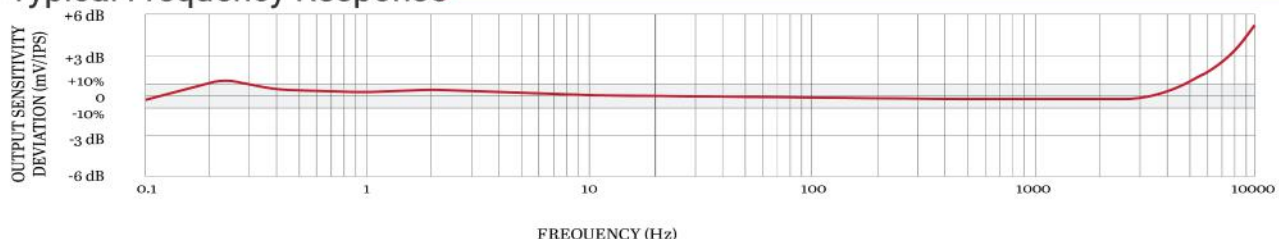
Conductor	Polarity
Red (Axis Y)	(+) Signal/Power
Green (Axis X)	(+) Signal/Power
White (Axis Z)	(+) Signal/Power
Black	(-) Common/Grid



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TXFA333-VE	M/TXFA333-VE	Environmental		
Sensitivity ($\pm 15\%$)		500 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	1 Hz to 4.5 kHz	Maximum Shock Protection		5,000 g, peak
Frequency Response ($\pm 10\%$)	120 to 240,000 CPM	2 Hz to 4 kHz	Electromagnetic Sensitivity		CE
Dynamic Range		+10 in/sec pk	Sealing		Welded, Hermetic
Electrical			Physical		
Settling Time		<4 Seconds	Sensing Element		PZT Ceramic
Voltage Source (IEPE)		18-30 VDC	Sensing Structure		Shear Mode
Constant Current Excitation		2-10 mA	Weight	13.4 oz	380 grams
Spectral Noise @ 10 Hz		200 μ IPS/ $\sqrt{\text{Hz}}$	Case Material		316L Stainless Steel
Spectral Noise @ 100 Hz		6 μ IPS/ $\sqrt{\text{Hz}}$	Connector (Non-Integral)		4 Pin Mini-MIL or 4 Pin M12
Spectral Noise @ 1000 Hz		0.7 μ 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



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