

VE101 Series

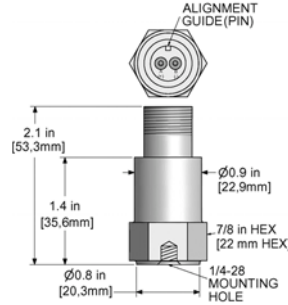
Piezo Velocity Sensor, Top Exit Connector / Cable, 100 mV/in/sec



VE101-1A

2 Pin Connector

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



VE101-2A

Integral Cable

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



VE101-3A

Armored Integral Cable

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



Part Numbers & Ordering Information:

When Ordering Metric, add "M" prefix.
(Example: M/VE101-2A/010-Z)

VE101-1A Piezo Velocity Sensor, 100 mV/in/sec, 2 pin top connector

VE101-2A/010-Z	10 ft. (3 m), blunt cut end
VE101-2A/020-Z	20 ft. (6 m), blunt cut end
VE101-2A/030-Z	30 ft. (9 m), blunt cut end
VE101-2A/050-Z	50 ft. (15 m), blunt cut end
VE101-2A/100-Z	100 ft. (30 m), blunt cut end
VE101-2A/010-F	10 ft. (3 m), BNC plug connector
VE101-2A/020-F	20 ft. (6 m), BNC plug connector
VE101-2A/030-F	30 ft. (9 m), BNC plug connector
VE101-2A/050-F	50 ft. (15 m), BNC plug connector
VE101-2A/100-F	100 ft. (30 m), BNC plug connector

VE101-3A/010-Z	10 ft. (3 m), blunt cut end
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Performance Specifications

	English	Metric
Sensitivity ±10%	100 mV/in/sec	4 mV/mm/sec
Frequency Response		
±3 dB	90-720,000 CPM	1.5-12000 Hz
±10%	480-270,000 CPM	8.0-4500 Hz
Dynamic Range	±50 in/sec, pk	±1270 mm/sec, pk
Electrical		
Settling Time (Turn on Time) @ Room Temp (68°F/20°C)	<4 Seconds	<4 Seconds
Power Requirement		
Voltage Source	18-30 VDC	18-30 VDC
Constant Current Excitation	2-10 mA	2-10 mA
Electrical Noise (Typical)		
Broadband 2.5 Hz to 25 kHz	1800 σg, rms	1800 σg, rms
Spectral		
10 Hz	165 σg/√Hz	165 σg/√Hz
100 Hz	10 σg/√Hz	10 σg/√Hz
1000 Hz	3 σg/√Hz	3 σg/√Hz
Output Impedance, Max	<100 ohm	<100 ohm
Bias Output Voltage	10-14 VDC	10-14 VDC
Electrical Case Isolation	>10 ⁸ ohm	>10 ⁸ ohm

Environmental

	English	Metric
Temperature Range	-58 to 250° F	-50 to 121° C
Maximum Shock Protection	5,000 g, peak	5000 g, peak
Electromagnetic Sensitivity	CE	CE
Sealing	Welded, Hermetic	Welded, Hermetic
Submersible Depth (VE101-2A)	500 ft.	152 m
Physical		
Sensing Element	PZT Ceramic	PZT Ceramic
Sensing Structure	Shear Mode	Shear Mode
Weight	3.2 oz.	90 grams
Case Material	316L Stainless Steel	316L Stainless Steel
Mounting Hole	1/4-28	1/4-28
Connector (VE101-1A)	2 Pin MIL-C-5015	2 Pin MIL-C-5015
Integral Cable (VE101-2A)	CB103	CB103
Armored Cable (VE101-3A)	CB206, Armor Jacket	CB206, Armor Jacket
Mechanical		
Resonant Frequency	1,500,000 CPM	25000 Hz
Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Supplied Accessories		
Mounting Hardware	1/4-28 Stud	M6x1 Adapter Stud
Calibration Certificate	CA10	CA10

Common Applications

Industries Served

- Automotive
- Power
- Manufacturing
- Pulp and Paper
- Petrochemical
- Steel
- Pharmaceutical
- Wastewater Treatment

Typical Applications

- Air Compressors
- Dryer Sections <250° F (121° C)
- Motors
- Pumps, Underwater
- Air Handlers
- Fans
- Press Sections
- Roll and Process Equipment
- Conveyors
- Fourdriniers
- Presses and Stamping
- Spindles
- Cooling Towers
- Gear Boxes
- Pumps

Measurement Types

- Permanent Mount
- Portable

For optional accessories, please see the "Sensor Accessory Selection Chart".



VIBRATION ANALYSIS HARDWARE