

VT102 Series

Dual Output, Piezo Electric Velocity Sensor, Velocity/Temperature, Top Exit Connector/Cable, 100 mV/in/sec, 10 mV/°C

SECTION 1 - VIBRATION SENSORS
Piezo Electric Velocity Accelerometers



Actual Product Size Shown



Product Features

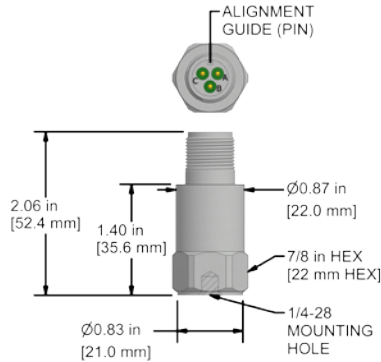
Velocity and Temperature Output in One Sensor
High Performance, Dual Output Sensor

- ± 50 in/sec, Peak Dynamic Range
- Standard 3 Pin MIL Connection
- Integrates to Velocity in the Sensor

VT102-1D

3 Pin Connector

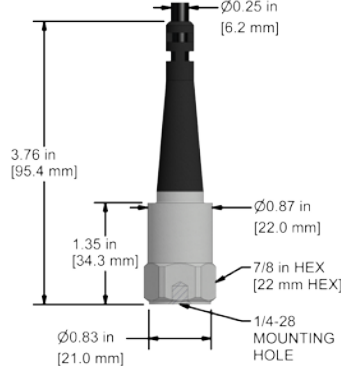
Connector Pin	Polarity
A	(+) Signal / Power
B	(+) Common
C	(+) Temperature Voltage



VT102-2D

Integral Cable

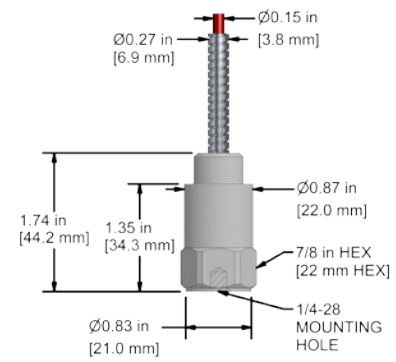
Conductor	Polarity
Red	(+) Signal / Power
Black	(+) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



VT102-3D

Armored Integral Cable

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



Specifications	Standard	Metric
Part Number	VT102	M/VT102
Vibration		
Sensitivity ($\pm 10\%$)	100mV/in/sec	4mV/mm/sec
Frequency Response (± 3 dB)	90-720,000 CPM	1,5-12000 Hz
Frequency Response ($\pm 10\%$)	120-270,000 CPM	2,0-4500 Hz
Dynamic Range (Peak)	± 50 in/sec	± 1270 mm/sec
Temperature Measurement Range	37° to 250° F	3° to 121° C
Temperature Output	10 mV/°C	
Electrical		
Settling Time	<4 Seconds	
Voltage Source (IEPE)	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	25 μ IPS/ \sqrt Hz	
Spectral Noise @ 100 Hz	2 μ IPS/ \sqrt Hz	
Spectral Noise @ 1000 Hz	0.5 μ IPS/ \sqrt Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁸ ohm	

Specifications	Standard	Metric
Environmental		
Temperature Range	-58 to 250°F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (VT102-2D/3D)	200 ft.	60 m
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	3.2 oz	90 grams
Case Material	316L Stainless Steel	
Mounting Hole	1/4-28	
Connector (non-integral)	3 Pin MIL-C-5015	
Resonant Frequency	1,380,000 CPM	23000 Hz
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Mounting Hardware	1/4-28 Stud	M6x1 Adapter Stud
Calibration Certificate	CA10	

Ordering Information

Standard	VT102-1D (1/4-28 Stud)	VT102-2D / (1/4-28 Stud)	VT102-3D / (1/4-28 Stud)
Metric	M/VT102-1D (M6x1 Adapter Stud)	M/VT102-2D / (M6x1 Adapter Stud)	M/VT102-3D / (M6x1 Adapter Stud)

Cable Terminations:



VIBRATION ANALYSIS HARDWARE

Backed by our Unconditional Lifetime Warranty