Vitec, Inc.

4034 VELOCITY TRANSDUCER INSTALLATION AND SPECIFICATIONS

APPLICATION

The 4034 Velocity Transducer is a good quality transducer used for general purpose machine vibration measurement. It is self-powered device, capable of being used with cable runs of up to 1,000 ft.

INSTALLATION, ELECTRICAL

Cable Type: Use high quality, co-axial, or twisted, shielded cable between the transducer terminals and monitor terminals. Use of Vitec supplied cable assemblies is recommended.

Cable Length: Transducer to monitor cable length should not exceed 1,000 ft.

Cable Splicing: If cable splices are made, complete shielding must be maintained.

Cable Routing: Proper cable routing is required to avoid false signals being introduced into the measuring device (monitor). Avoid running transducer wires adjacent to, or parallel to, AC power lines. Where possible, provide a separate, grounded conduit to enclose the transducer cable. Route cable away from radio transmission equipment, motors, generators, and transformers. Avoid running cable through areas prone to ESD (Electro Static Discharge) or EMI (Electromagnetic Interference).

Cable Grounding: Connect the cable shield to a good, earth ground connection, at one end only (preferably at the monitor end of the cable). Vitec monitors provide this connection as a terminal block connection point.

INSTALLATION, MECHANICAL

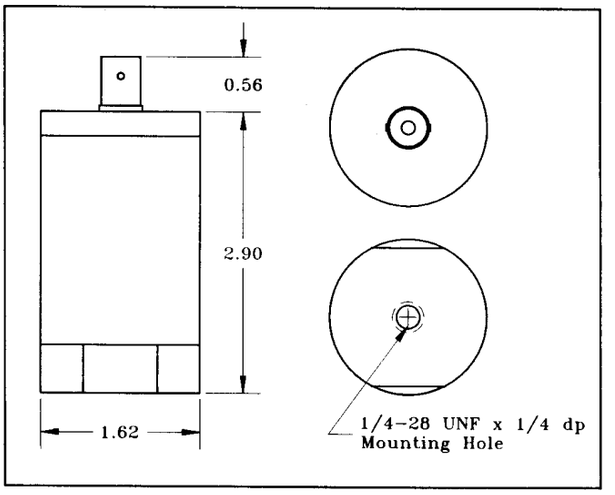
Location: Mount on, or as close as possible to, the bearing being monitored. Preferable mounting location is on the bearing cap.

Direction: The 4034 is only sensitive to vibrations that are occurring in the direction of the transducer's axis (the imaginary line running through the center of the connector and the mounting stud). Therefore, mount the transducer in a direction that will sense the vibrations to be measured.

Operating Position: The 4034 can be mounted in a position of +/- 180 degrees off of vertical, with vertical being defined as the connector in the "up", or 12:00 position.

Surface Preparation: The mounting surface must be flat and smooth. For best results, mounting surface should be flat to within 0.001 in TIR (Total Indicated Runout) over the full base dimension of the transducer, with a minimum 63 µin finish.

Stud Mounting: Drill and tap the mounting point for a 1/4-28 UNF stud, with a minimum thread depth of 3/8 in.



SPECIFICATIONS

Dynamic:	
Output, mV peak, +/- 10%, for 1.0 in/sec peak at 100 Hz	460
Frequency Response, %, 12 to 1,000 Hz	+/- 10
Natural Frequency, Hz, +/- 10%	10
Transverse Axis Sensitivity, %	10
Amplitude Range, inches, maximum: Horizontal Position Vertical and Inverted Position	 0.100 0.075
Operating G's, maximum	12.98
Damping	Shunt Resistor

Electrical:	
Power Requirements	None, Self Generating
Sensing Element Impedance, ohms, +/- 5%, at 77°F	215
Connections (Connector): Center Pin Shell	 Signal Signal Return

Environmental:	
Temperature Range, °F	30 to 160
Operating Position, degrees from vertical, connector up	+/- 180

Physical:	
Vitec Part No.:	412585-159A
Weight, oz.	14
Case Material	Aluminum, Anodized
Dimensions: Height, inches Body Diameter, inches Center Mounting Hole Wrench Flats, inches, at Bottom	 3.46 1.62 1/4-28 UNF x 1/4 in Deep 1-1/2
Mating Cable Assembly	Varies with application, contact factory

Vitec, Inc.
24755 Highpoint Rd.
Cleveland, OH 44122
Phone: 216-464-4670
Fax: 216-464-5324

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