

APPLICATION

The 4032 Velocity Transducer is a direct replacement for the discontinued 4028 Velocity Transducer. It is a high quality transducer used for general purpose machine vibration measurement. It is a self-powered device, capable of being used with cable runs of up to 1,000 ft.

INSTALLATION, ELECTRICAL

Cable Type: Use high quality, 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

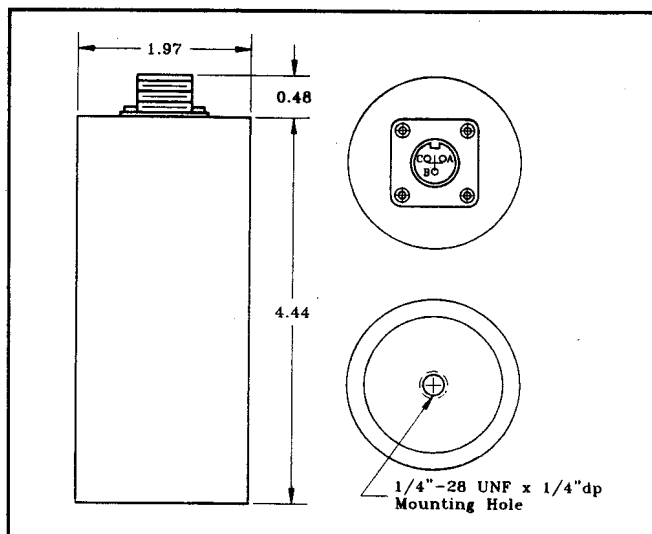
Location: Mount on, or as close as possible to, the bearing being monitored. Preferable mounting location is on the bearing cap.

Direction: The 4032 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 4032 is limited to a mounting position of +/- 110 degrees off of vertical, with vertical being defined as the connector in the "up", or 12:00 position. Operating the transducer out of this mounting range can cause irreparable damage.

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 μ in finish.

Mounting: See Appendix 1.



SPECIFICATIONS

Dynamic:	
Output, mV peak, +/- 3%, for 1.0 in/sec peak into a 10K ohm resistive load at 100 Hz	225
Linearity, %: from 0.2 to 8.0 in/sec peak from 0.1 to 10.0 in/sec peak	+/- 2 +/- 3
Frequency Response, %, 20 to 1,500 Hz	+/- 5
Natural Frequency, Hz, approximate	20
Transverse Axis Sensitivity, % at 100 Hz	5
Temperature Sensitivity, % change in output from 20 to 1,000 Hz with a temperature range of 25 to 300°F	+/- 5
Amplitude Range, inches: minimum maximum	0.0002 0.100
Operating Gs, maximum	17
Damping	Electro-Magnetic

Electrical:	
Power Requirements	None, Self Generating
Sensing Element Impedance, Kohms, +/- 5% at 75°F	7.5
Grounding, Sensing Element	Internally Ungrounded
Connections (Connector): Pin A Pin B Pin C	Signal Open Signal Return

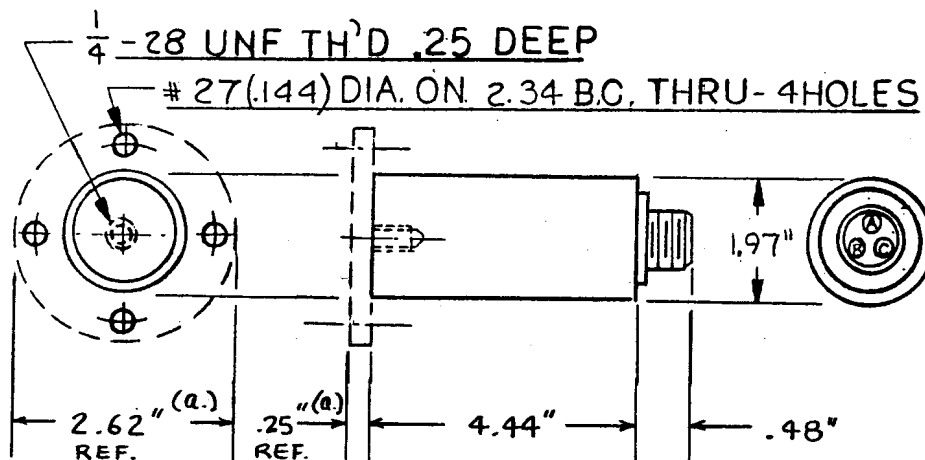
Environmental:	
Temperature Range, °F	-20 to 300
Operating Position, degrees from vertical, connector up	+/- 110

Physical:	
Vitec Part No.:	602885-49U
Weight, ounces	28
Case Material	2024-T3 Aluminum with Satin Anodized Finish
Dimensions: Height, inches Body Diameter, inches Center Mounting Hole	4.92 1.97 1/4-28 UNF x 1/4 in Deep
Mating Cable Assembly	Varies with application, contact factory

Vitec, Inc.
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Cleveland, OH 44122
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DIMENSIONS AND INSTALLATION DETAILS FOR THE 4032 VELOCITY TRANSDUCER

Dimensions:

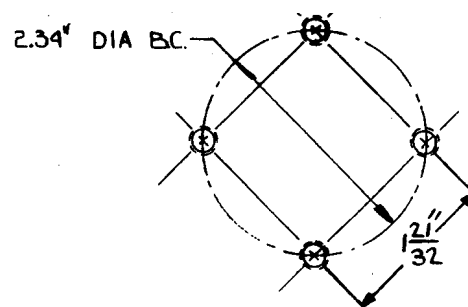


(a) Optional Flange Mount.

Mounting:

- A. New Installation: Drill and tap the mounting point for a 1/4-28 UNF stud, with a minimum thread depth of 3/8 in.
- B. To replace 4028 Velocity Transducer: Double threaded stud adapter, Vitec Part No. 412571-67A is required. Screw 1/4-28 UNF portion of stud adapter into 4032, screw 1/4-20 UNC portion of stud into mounting surface.
- C. Flange Mount (Optional)

Drill and tap mounting surface for four, No. 6 screws, 1/4 in deep minimum full thread, on a 2.34 in diameter Bolt Circle Dia. (1-21/32 in square).



- D. Explosion Proof Housing (Optional):

Ask for Vitec Part No. 79900-9E, and Drawing No. 412502-55.