Vitec, Inc.

4071 ACCELEROMETER INSTALLATION AND SPECIFICATIONS

APPLICATION

The 4071 Accelerometer is a high quality transducer used for general purpose machine vibration measurement. It has a 100 mV/G output that can be used with cable runs of up to 1,000 feet, and is suitable for use in temperatures up to 180°F.

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 accelerometer wires adjacent to, or parallel to, AC power lines. Where possible, provide a separate, grounded conduit to enclose the accelerometer 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

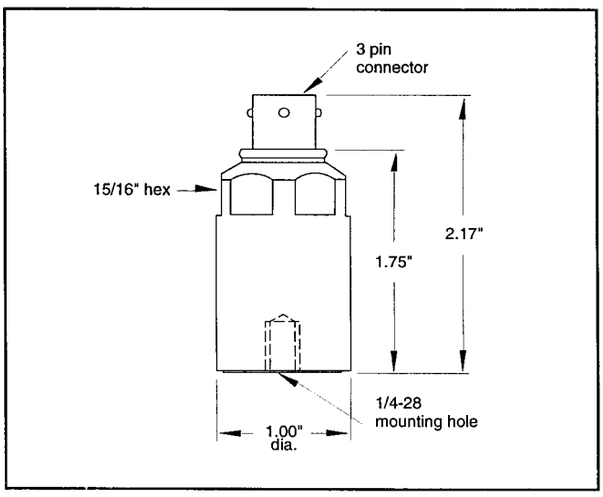
Location: Mount on, or as close as possible to, the bearing being monitored. Preferable mounting location is on the bearing cap.

Direction: The accelerometer 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 4071 Accelerometer can be mounted in any position, there are no mounting position restrictions.

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: If stud mounting is used, 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/G, +/- 5%	100
Dynamic Range, Gs, peak	0.01 to 60.0
Frequency Response, Hz, +/- 5%	2.1 to 3,500
First Mounted Resonant Frequency, KHz	≥ 7
Transverse Axis Sensitivity, % maximum	5
Shock Level, Gs maximum, peak	5,000

Electrical:	
Power Requirements, volts DC	8 to 30
Current Draw, mA	1.0 to 20
Connections (Connector): Pin A Pin B Pin C	 0 Volts + Volts Signal

Environmental:	
Temperature Range, °F	-58 to 180
Humidity Limit, % relative	100

Physical:	
Vitec Part No.:	412790-39A
Weight, oz.	3.4
Case Material	Stainless Steel
Dimensions: Height, inches Body Diameter, inches Center Mounting Hole Wrench Flats, inches, at top	 2.18 1.00 1/4-28 UNF x 3/8 in Deep 15/16
Mating Cable Assembly	Varies with application, contact factory

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