

4-125 Vibration Transducer

Applications

- Vibration Analysis and Monitoring
- Dynamic Balancing Equipment
- Engineering Test and Research
- Production and Quality Testing
- Gas Turbine Test Cells
- Power Generation

Features

- Self Generated, High Level, Low Impedance Output simplifies your system.
- Operates to 700°F
- Field Repairable



Description

CEC designed the 4-125 Vibration Transducer for turbine applications. You can use them in turbine hot sections, such as the turbine case, where high operating temperatures cause problems with other transducers. The low impedance, high level output requires no special amplifiers, simplifying your measurement system. They can be mounted in any plane and have low sensitivity to transverse accelerations.

Rugged construction and design simplicity insure high reliability and long service life. The 4-125 is also field repairable; CEC supports this instrument with repair parts and procedures so that you can overhaul them at your facility.

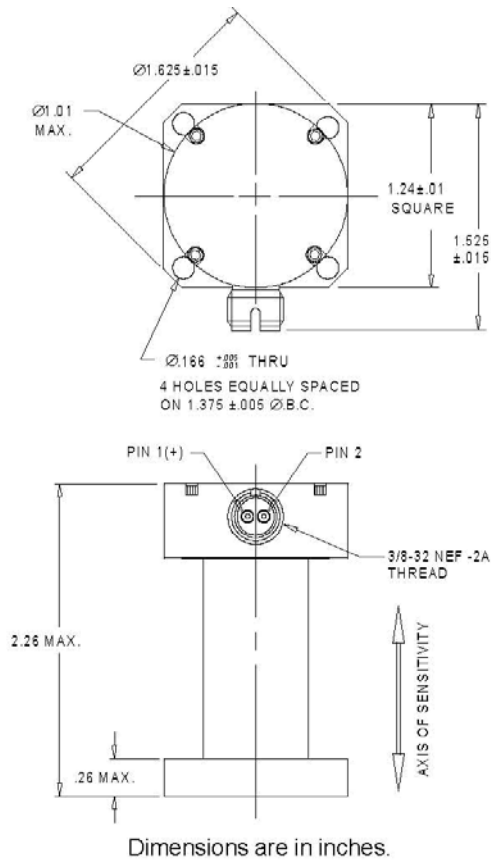
These vibration transducers use a seismic mass magnet, positioned by springs, moving on gold bearings. A sealed capsule contains the magnet assembly. A coil is attached to the transducer case, and movement between the magnet and coil produces the output signal when the case vibrates. This air damped system operates above its natural frequency so the output is proportional to velocity. The sealed capsule assures permanent protection of the moving parts from contamination, and permits easy disassembly and repair of the transducer in your overhaul facilities.

4-125 Specifications

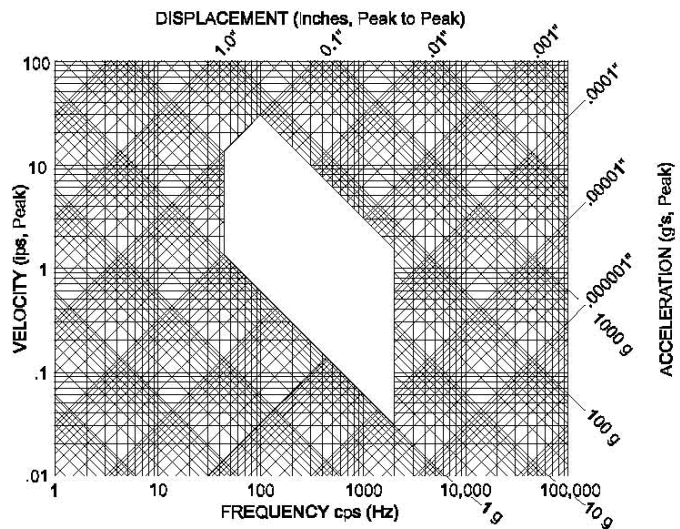
Sensitivity:	105 mV \pm 3mV/in/sec at 75°F into a 10,000 ohm resistive load impedance
Dynamic Range:	
Frequency:	45 Hz to 1500 Hz
Amplitude:	0.1 inch peak-to-peak, maximum
Acceleration:	1 g to 50 g
Frequency Response:	\pm 6% maximum throughout operating temperature range
Linearity:	\pm 1% output at 20 g's (vertical at 100 Hz)
Transverse Response:	2% maximum
Temperature Range:	-65°F to +700°F (-54°C to +371°C)
Thermal Coefficient of Sensitivity:	-0.02%/oF
Sensitivity Shift with Position:	10% maximum
Damped Resonant Frequency:	15 Hz nominal
Excitation:	Self-generating
Coil Resistance:	575 ohms maximum at 75°F
Insulation Resistance:	0.1 Mega Ohm, minimum



Polarity: Pin 1 is positive when the case is moved upward
 Maximum Static Acceleration: 2.2 g's in sensitive axis produces full travel of the moving mass
 Shock: 100 g's may be applied without damage
 Weight: 8 oz. maximum



VIBRATION NOMOGRAPH Model 4-125 Operating Range



Optional Accessories

1. Mating connector; P/N 173960
2. Cable and connector assembly; P/N 169500-XXXX, (length is identified in inches; e.g.; 36-inch cable
3. is P/N 169500-0036)
4. Operation and Maintenance Manual; P/N 992330

Ordering Information:

When ordering, specify 4-125-0001. Mating connector and cable assemblies are not furnished and must be ordered separately. In keeping with CEC's policy of continuing product improvement, specifications may be changed without notice.