

## 4-126 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.
- Field Repairable
- Operates to 700°F

### Description

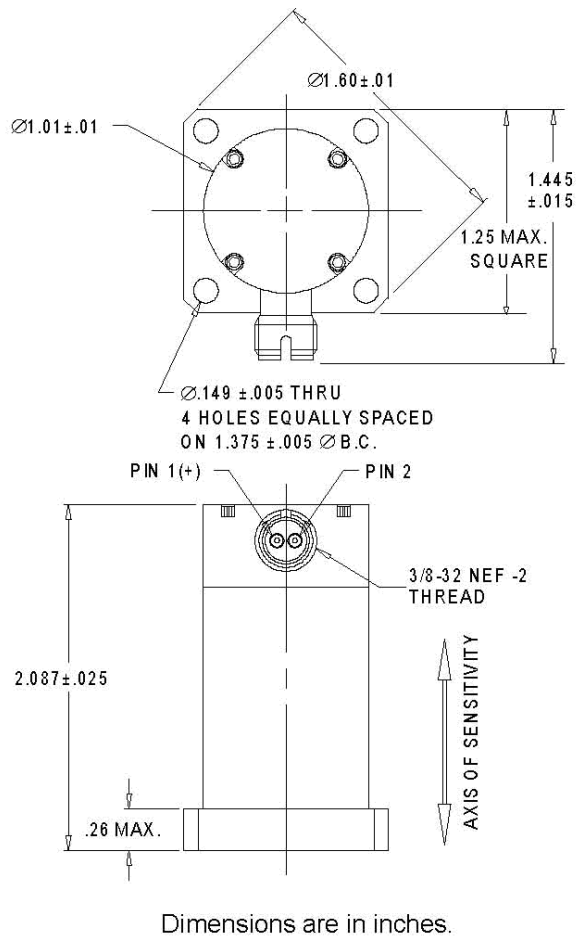
CEC designed the 4-126 Vibration Transducer for turbine applications. You can use them in turbine hot sections, such as the turbine case, where high operating temperatures cause problems with other transducers. The low impedance, high level output requires no special amplifiers, simplifying your measurement system. The transducer can be mounted in any plane due to the low sensitivity to transverse accelerations.

Rugged construction and design simplicity insure high reliability and long service life. The 4-126 is also field repairable; CEC supports this instrument with repair parts and procedures so that you can overhaul them at your facility.

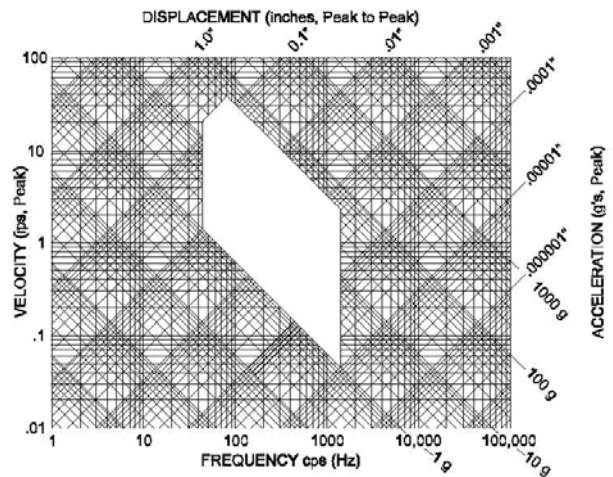
These vibration transducers use a seismic mass magnet that moves on gold bearings. A coil is attached to the base, and movement between the magnet and coil produces the output signal when the case vibrates. This air damped system operates above its natural frequency so the output is proportional to velocity. The sealed case insures complete protection from contamination.

### 4-126 Specifications

Sensitivity:	145 $\pm$ 4 mV/in/sec at 100 Hz, 2 ips RMS at 75°F (+24°C) into a 10,000 ohm resistive load impedance
Dynamic Range:	
Frequency:	45 Hz to 1500 Hz
Amplitude:	0.15 inch maximum peak-to-peak
Acceleration:	1 g to 50 g
Frequency Response:	$\pm$ 7% of the mean sensitivity
Transverse Response:	2% maximum
Linearity:	$\pm$ 1% of output at 20 g's within dynamic range (vertical at 100 Hz)
Temperature Range:	-65°F to +700°F (-53°C to +371°C)
Thermal Coefficient of Sensitivity:	-0.02%/°F
Static Acceleration:	2.2 g's in sensitive axis produces full travel of moving mass; 100 g's may be applied without damage
Damped Resonant Frequency:	13 Hz nominal
Excitation:	Self-generating
Insulation Resistance:	0.1 Mega Ohm minimum
Polarity:	Pin 1 is positive when the case is moved upward
Weight:	8 oz. nominal
Calibration:	Calibration record furnished
Environmental Tests:	Meets requirements of applicable procedures of MIL-E-5272C for temperature, humidity, altitude, salt spray, vibration, fungus, sand and dust, immersion, shock and acceleration.



**VIBRATION NOMOGRAPH**  
Model 4-126 Operating Range



**Optional Accessories**

1. Cable and connector assembly; P/N 169500-XXXX (length is identified in inches; e.g. a 36-inch cable is P/N 169500-0036)
2. Connector; P/N 173960
3. Operation and Maintenance Manual; P/N 992222

**Ordering Information:**

When ordering, specify 4-126-0001. Mating connectors 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.