

4-123 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

- Miniature for space limiting applications
- Self Generated, High Level, Low Impedance Output simplifies your system.
- Weighs on 4.25 ounces
- Operates to 260°C



Description

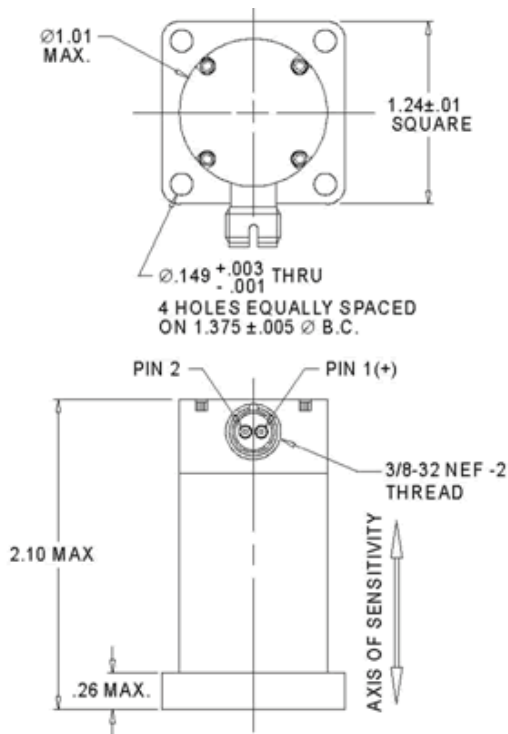
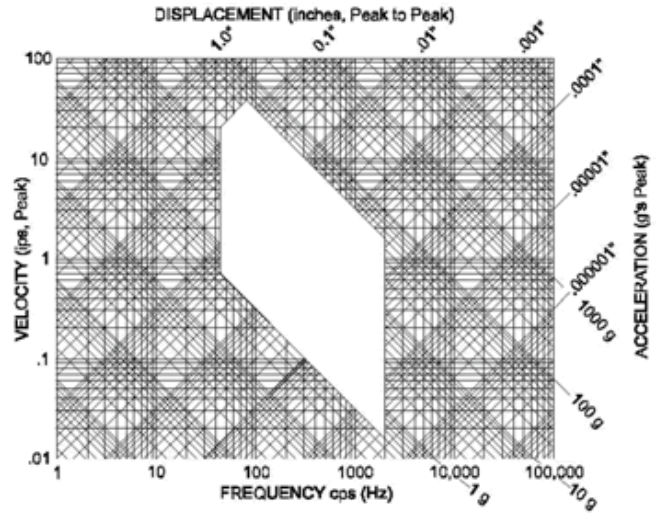
CEC's 4-123 Vibration Transducers are particularly suited to turbine applications. They operate to 260°C, have low sensitivity to transverse accelerations, and can be mounted in any plane. The low impedance, high level output requires no special amplifiers, simplifying your measurement system. Precision jewel bearings provide nearly function-free movement for long life and reliability.

CEC's 4-123 Vibration Transducers use a seismic mass that moves on a special bearing mechanism. A coil is attached to the 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. The AC mV output is proportional to velocity. The sealed case provides protection from contamination.

4-123 Specifications

Sensitivity:	135 mV \pm 2mV/in/sec at 100 Hz, +25°C into a 10,000 Ω resistive load impedance.
Dynamic Range:	
Frequency:	45 Hz to 2000 Hz
Amplitude:	0.15 inch peak-to-peak, max.
Acceleration:	0.5 g to 50 g
Frequency Response:	\pm 8% of mean sensitivity, 45 to 2000 Hz throughout the operating temperature range
Linearity:	\pm 3% within the dynamic range
Transverse Response:	Less than 2%
Temperature Range:	-40°C to +260°C (-40°F to +500°F)
Thermal Coefficient of Sensitivity:	\pm 0.03%/°F
Sensitivity Shift with Position:	\pm 6% of the mean sensitivity between vertical and horizontal
Damped Resonant Frequency:	18 Hz nominal
Excitation:	Self-generating
Insulation Resistance:	1 mega Ohm, minimum
Polarity:	Pin 1 is positive when case moved upward
Maximum Static Acceleration:	6 g's in sensitive axis produces full travel of the moving mass
Shock:	50 g's maximum in any direction.
Weight:	121 grams (4.5 oz).

**VIBRATION NOMOGRAPH
Model 4-123 Operating Range**



Dimensions are in inches.

Optional Accessories

- 1 Cable and connector assembly P/N 169500-xxxx (length is identified in inches; e.g.; 36-inch cable is P/N 169500-0036)

2 Connector P/N 173960

Ordering Information:

When ordering, specify Type 4-123-0001. 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.