Vibration Products Inc.

4-123

Vibration Transducer

Applications

- Aircraft Engines
- Industrial Turbines
- Power Generators
- Test Cells

Features

- Self-generated, high level, low impedance output
- Operates to +500°F (+260°C)
- Weighs only 4.25 ounces

Velocity Sensors

Description

CEC's 4-123-0001 Vibration Transducers are particularly suited to turbine applications. They operate to +500°F, have low sensitivity to transverse accelerations, and can be mounted in any plane. The low impedence, high level output requires no special amplifiers, simplifying your measurement system. Precision jewel bearings provide nearly friction-free movement for long life 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 ouput 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.

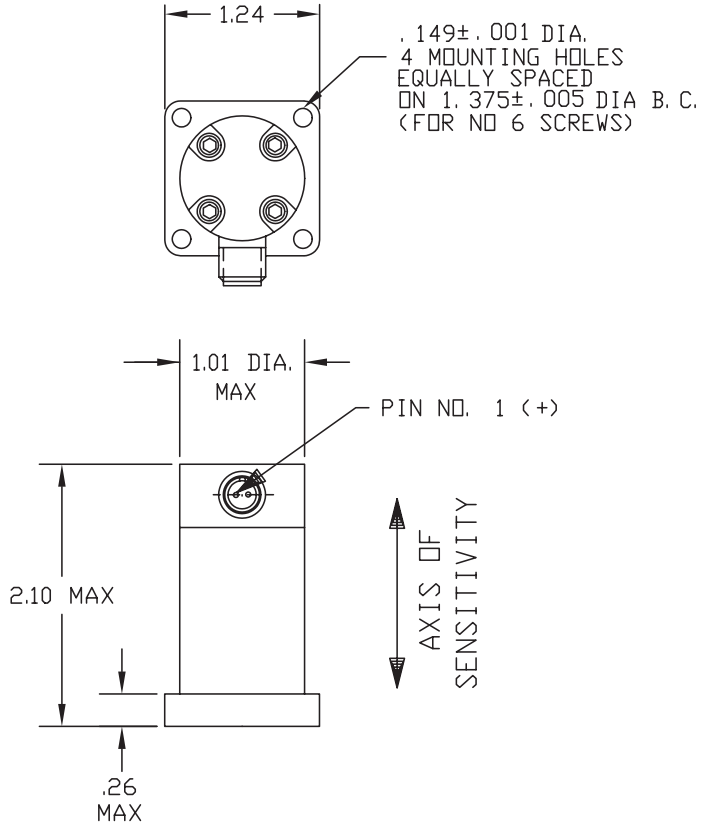
RoHS COMPLIANT

ISO 9001:2000 AS9100 Certified

4-123 Vibration Transducer

Performance Specifications

Sensitivity:	135 ±2 mV/in/sec at 100 Hz, +77°F(+25°C) into a 10,000 Ω resistive load impedence
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:	±8% of the mean sensitivity 45 to 2000 Hz throughout the operating temperature range
Transverse Response:	Less than 2%
Linearity:	±3% within dynamic range
Temperature Range:	-40°F to +500°F (-40°C to +260°C)
Thermal Coefficient of Sensitivity:	±0.03%/°F
Sensitivity Shift with Position:	±6% of the mean sensitivity between vertical and horizontal
Damped Resonant Frequency:	18 Hz
Excitation:	Self-generating
Coil Resistance:	435 ohms ±15% at 77°F
Insulation Resistance:	1 meg ohm, minimum
Polarity:	Pin 1 is positive when the case is moved upward
Maximum Static Acceleration:	6 g's in sensitive axis produces full travel of moving mass
Shock:	50 g's maximum in any direction
Weight:	4.5 oz nominal (121 grams)

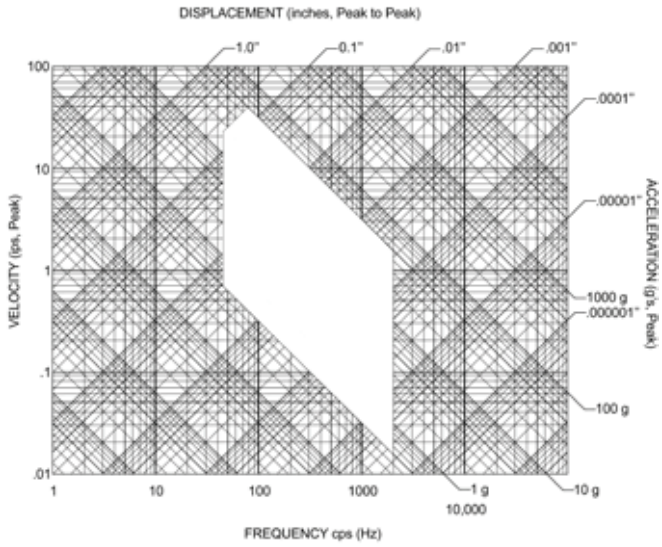


Optional Accessories

1. Cable and connector assembly P/N 169500-XXXX (length is identified in inches; e.g.: 60-inch cable is P/N 169500-0060)
2. Connector P/N 173960

Ordering Information

When ordering, specify 4-123-0001. 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.



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