

4-137-0106 Vibration Transducer

Performance Specifications

Sensitivity: 105 mV/in/sec ±5% measured at

+77°F (+25°C) in the vertical position, with a sinusoidal driving force applied perpendicular to the base at 100 Hz, 1 in/sec RMS (25.4 mm/sec). Load impedance is 10,000 Ω ±2%

Dynamic Range

Frequency: 30 Hz to 1500 Hz

Amplitude: 0.07 inch peak-to-peak max

Acceleration: 1.0 g to 50 g peak
Acceleration 1.0 g peak

Threshold:

Frequency Response: 45 Hz to 1500 Hz, ±8%¹

30 Hz to 44 Hz, ±10%1

¹ Deviation from measured reference

Linearity: ±5% of measured reference at 100 Hz,

1 g to 50 g's peak

Position: ±10% of measured reference at any

position other than vertical

 $\begin{tabular}{ll} \textbf{Temperature Range} & -65 \begin{tabular}{ll} -65 \begin{tabular}{ll} F & to +700 \begin{tabular}{ll} F & to +371 \begin{tabular}{ll} C \end{tabular} \end{tabular}$

Thermal Coefficient of ±0.02%

Sensitivity:

 $\pm 0.02\%$ /°F from reference +77°F ($\pm 0.036\%$ /°C from reference +25°C)

Damped Resonant

Frequency: 20 Hz

Excitation: Self-generating **Coil Resistance:** $450 \Omega \pm 25\%$

Insulation Resistance: 0.1 megaohm min. at +700°F (+371°C)

Polarity: Pin 2 is positive when case is moved

upward

Shock: 50 g max. in any direction

Sealing: Hermetically sealed, all welded

construction

Weight 2.5 oz. (70.9 g) maximum

Hazardous Approvals



North America

CSA C/US Class I, Division I, Groups A, B, C and D Class I, Division 2, Groups A, B, C and D



European

ATEX EEx ia IIB or IIC T6 - T1

EEx nA II T6 - T1 X

Optional Accessories

- P/N 169500-XXXX, High temperature cable and connector assembly (-XXXX = length in inches; e.g.: 60-inch cable is P/N 169500-0060)
- High temperature connector P/N 173960

Ordering Information

Order mating connectors and cable assemblies separately. In keeping with CEC's policy of continuing product improvement, specifications may be changed without notice.

