Type 4-126

Velocity Vibration Transducer

Made in the United States of America

Description

The 4-126 is a seismic type velocity transducer designed for measuring vertical vibrations at temperatures up to +700°F (+371°C). A seismic mass magnet moves on precision bearings. A coil is attached to the case and relative movement between the magnet and coil produce the output signal when the case is in motion. This air damped system operates above its natural frequency and the output is proportional to velocity. The sealed enclosure assures complete protection of the moving parts from external contamination.

Specifications

Sensitivity	@+75°F (+24°C), 100 Hz, 2 IPS (50.8 mm/sec) RMS into a 10,000 ohm resistive load
4-126-0001:	145 ±4 mV/ips
4-126-0104:	135 ±4 mV/ips
4-126-0110:	145 ±4 mV/ips
Frequency Range	
4-126-0001:	45 – 1500 Hz
4-126-0104:	45 – 2000 Hz
4-126-0110:	45 – 2000 Hz
Frequency Response	±7% of the mean sensitivity
Amplitude Range	0.15 inch peak-to-peak, maximum
Acceleration Range	1 to 50 g peak
Linearity	±1% output at 20 g's within dynamic range (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%/°F (0.01%°C) from +75°F (+25°C)
Damped Resonant Frequency	< 15 Hz nominal
Excitation	Self-generating
Insulation Resistance	0.1 meg-ohm minimum
Polarity	Pin 1 is positive when case is moved away from base
Weight	6 oz (170 g)
Accessories Included	Calibration Record
Optional Accessories	Cable and connector assembly (P/N 169500-XXXX) Connector (P/N 173960)

See Pg. 2 for Sensor Installation Information

Cable Assemblies

CEC manufactures many types of specialized cable assemblies for use with the various velocity sensor applications that exist. The mating connector CEC P/N 173960 is the common connector used across the entire CEC velocity sensor product line. Following is a list of several typical cable assemblies used with this sensor type:

Cable Assembly P/N	Cable P/N	Connector "A" P/N	Connector "B" P/N
169500-XXXX	167811	173960	Prepped Leads
173970-XXXX	174123	173960-0002	Prepped Leads
82406-XXXX	168567	173960 "Special Low Temp"	Prepped Leads

Note: The –XXXX of the cable assembly P/N represents the length in inches. Example: 10 ft. = 120 inches or -0120.

Installation

Mounting

Rigidly attach the transducer to a clean machined flat surface of the equipment under test using four #6 screws and lock washers. Be sure to tighten the screws securely (20-25 in/lb). Connect one end of cable assembly to the transducer and the other end to the vibration-monitoring device.

Caution: Never apply in excess of 45VDC across the terminals.

Figure 1 - Mounting Orientation

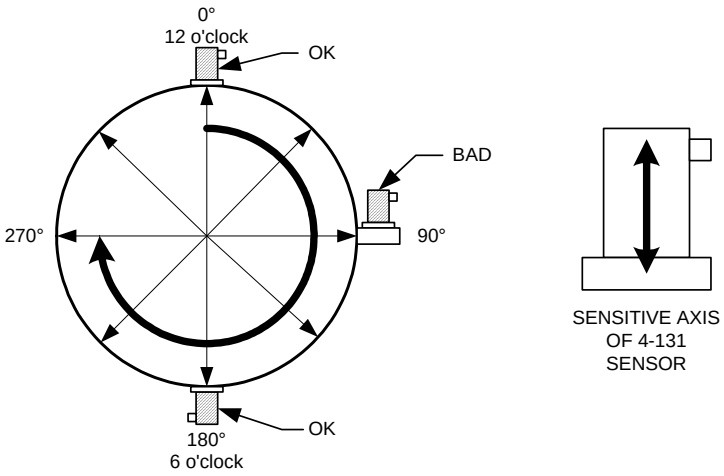
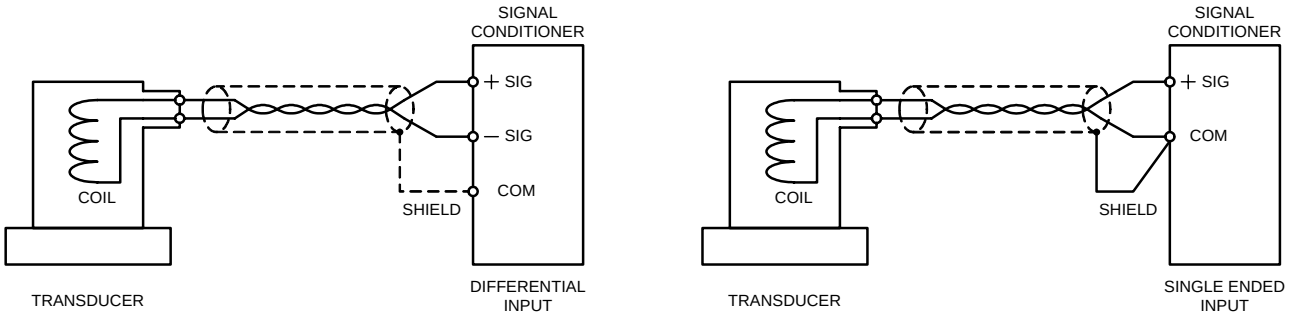


Figure 2 - Wiring Diagram



Note: Signal shield must remain isolated from sensor case.

Repair Info

For technical support or repair and calibration contact CEC customer support.
Note: CEC no longer supports the field repairability of these sensors. Please contact Customer Support or your local CEC representative for guidance.

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