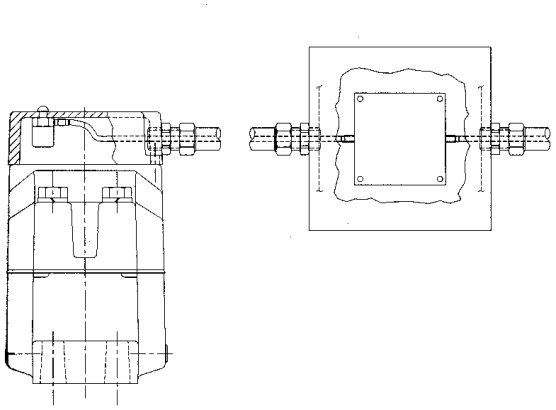


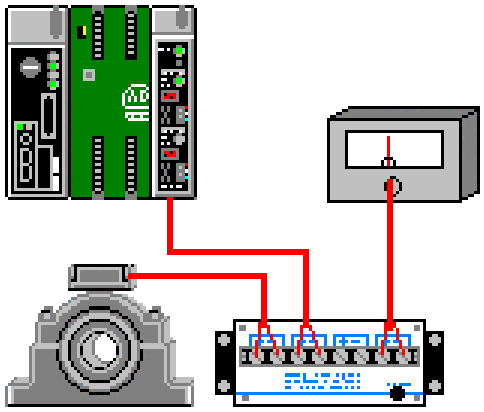
Product Description

The Vibration Accelerometer Sensor is a factory-installed sensor that monitors the radial vibration of a Dodge sensorized bearing. The Vibration Accelerometer Sensor is mounted within the housing to provide accurate measurement of all vibration seen by the bearing housing. The vibration transmitter converts this signal to a 4 to 20 mA current representing 0 to 1.000 inches/sec of vibration. An alternate transmitter, which can be used with DCS systems, provides a ± 5 volt signal representing ± 50g. The vibration transmitter signal can be read by most PLC Analog Input cards.

The Vibration Accelerometer sensor may be combined in the same housing with the Thermocouple Sensor offered by Dodge.

Typical Application

Wire the output of the Vibration Accelerometer to the Vibration Transmitter and the output of the transmitter to a PLC Analog Input Card.



Specifications

Dynamics

Sensitivity (±10%)	100 mV/g
Measurement Range	-50g to 50g
Resolution	0.0002g
Frequency Range (±10%)	66 - 300,000 CPM
Frequency Range (±3dB)	30 - 600,000 CPM
Resonant Frequency	1,080 kCPM
Transverse Sensitivity	≤5%
Amplitude Linearity	±1%

Environmental

Temperature Range	-65° to 185°F
Temperature Coefficient	-0.05%/F
Strain Sensitivity	0.001 g/με

Electrical

Supply Voltage	20 to 30V
Minimum Supply Current	60 mA
Setting Time	5 sec
Spectral Electrical Noise	
10 Hz	4.0 μg/√Hz
100 Hz	1.2 μg/√Hz
1000 Hz	0.4 μg/√Hz
Output Current	4 to 20 mA