



## ENVIROMUX-VSSR-10 Rugged Vibration Sensor

- Adjustable vibration alarm trip-point
- Selectable over- or under-vibration alarm
- Adjustable alarm delay prevents false shutdowns
- Fail-Safe output permits alarm and shutdown control logic
- NPN output
- Protects machinery and helps prevent costly downtime
- 24 Vdc power supply included
- NEMA 4X housing

### Product Information

#### Description

ENVIROMUX-VSSR-10 is an excellent choice as a compact and rugged stand-alone vibration sensor . It is engineered to protect industrial machinery against catastrophic failure associated with vibration levels above or below the trip point, which can be caused by imbalance, misalignment, looseness or excessive load. It mounts directly to the machine being monitored, allowing early detection of a pending malfunction, enabling cost-effective preventive maintenance.

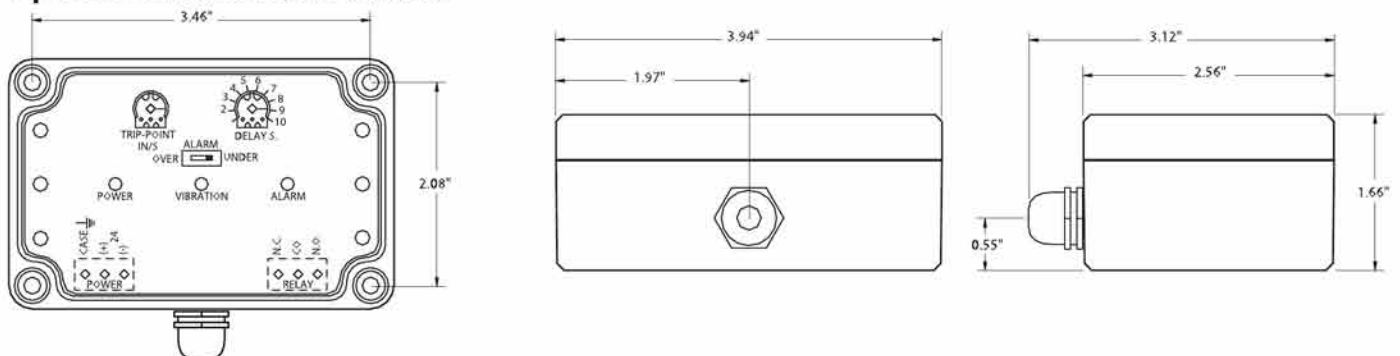
The sensor has three LED indicators to provide the operator with at-a-glance output status as well as the circuit condition. The NPN output can be wired for machine shutdown or as part of an early warning system. An adjustable alarm delay prevents false alarms by allowing the user to set a minimum fault condition time before the output changes state, thus preventing needless system shutdowns during operation or startup.

The vibration sensor is housed in a cast aluminum NEMA 4X enclosure suitable for mounting directly to the measurement point of the machine being monitored. The compact size makes installation possible in tight spaces on virtually any type of machinery.

The ENVIROMUX-VSSR-10 is ideal for detecting over- or under-vibration in machinery such as large motors, gearboxes, turbines, pumps, blowers, crushers, compressors, blenders, hammermills and conveyors.

#### Enclosure Dimensions

##### Operator Interface (cover removed)



The setting dials and switch are located under the housing cover. Remove the cover to change settings and replace when finished.

#### Installation

**Orientation IMPORTANT:** This vibration monitor senses vibration along the axis indicated by the SENSING DIRECTION arrow. Orient the vibration monitor with the arrow parallel to the vibration axis to be monitored.

**Mounting** Rigid, tight attachment is necessary for any vibration-sensing device. For this reason the **sensor** must be attached to a smooth, flat surface. Any looseness or rocking will permit error-causing resonance. Therefore, the **sensor** must be tightly and securely bolted to the measurement surface using ALL mounting tabs/holes.

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## Specifications

### LED Indicators

Power .....	Green
Vibration .....	Green - indicates vibration above min. detectable level 0.1 in/s rms
Alarm .....	Red - output in alarm state

### Settings/Ranges

Alarm trip point .....	0.1 - 2.2 in/s rms 2.5 - 55 mm/s
Alarm delay .....	1 - 10 seconds
Alarm .....	Over/under select switch

### Operational Limits (Vibration)

Min. frequency (-3db) .....	10 Hz
Max. acceleration .....	± 50 g peak

### Power Requirements

Voltage .....	24 Vdc (18 - 30 Vdc)
Current (max) .....	30 mA @ 24 Vdc (24 Vdc/130mA power supply included)

### Isolated NPN Output

Current .....	50 mA
$V_{CE}$ (max @ 50 mA) .....	1.0 V
$BV_{CEO}$ (breakdown volts) .....	100 V
$P_D$ (max power overtemp) .....	100 m@W
$I_{CEO}$ (max leakage overtemp) .....	100 $\mu$ A
Fail-Safe .....	Transistor ON when powered and not alarmed.

<b>Terminals/Connections</b> .....	10 Feet of 6 conductor, unshielded cable, 22 AWG
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<b>Enclosure</b> .....	Cast Aluminum. NEMA 4X
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### Operating Temperature

NPN option .....	-40°C to 85°C (-40°F to 185°F)
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<b>Weight</b> .....	0.75 lb (0.34 kg)
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*Specifications subject to change without notice.*