ELECTRO-SENSORS

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VUM-800
Vibration Monitor

Key Features

- Heavy-Duty Vibration Switch
- DPDT 10 amp Relay
- Optional 230 Vac Operation
- Mercury Switch Senses Machine Failure
- Fail-Safe Operation
- Remotely mountable Control Relay
- Multi Axis Monitoring

Description

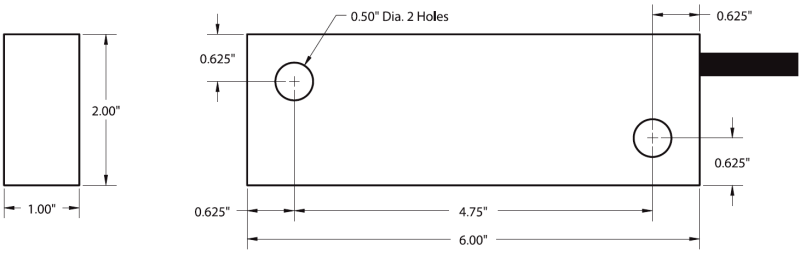
The Electro-Sensors VUM-800 Vibration Monitor confirms normal operation of processes utilizing continuous vibration. Since the VUM-800 measures actual vibration not motor rotation, power draw or any other implied measures, all sources of failure are detected: power loss, motor or gearbox failure, belt slippage, or breakage. Applications include shaker screens, vibratory feeders, bin bottoms and crushers. The solid state electronics of the VUM-800 probe are epoxy encapsulated inside a metal enclosure, making it rugged and reliable. The VUM-800 is easily installed and needs no calibration or maintenance. The unit is fail-safe, power loss or a broken cable will indicate an alarm situation.

Principle of Operation

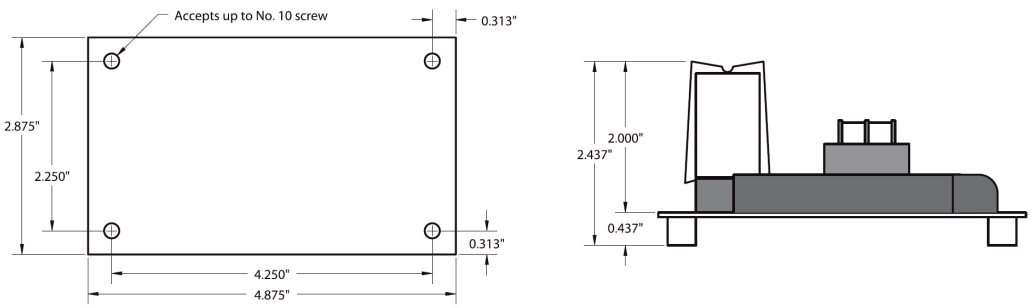
The VUM-800 consists of the sensing probe which is mounted on the vibrating equipment, a cable, and the relay control which is mounted remotely. Low voltage (24Vac) is sent from the control unit to the probe. When the probe is vibrating, a mercury switch inside the probe is activated and contact is made, thus sending current back to the control unit and energizing the relay. This is the normal mode or operating condition. The mercury switch will open the circuit if there is no vibration.

Dimensional Drawings • VUM-800

Probe



Control Unit



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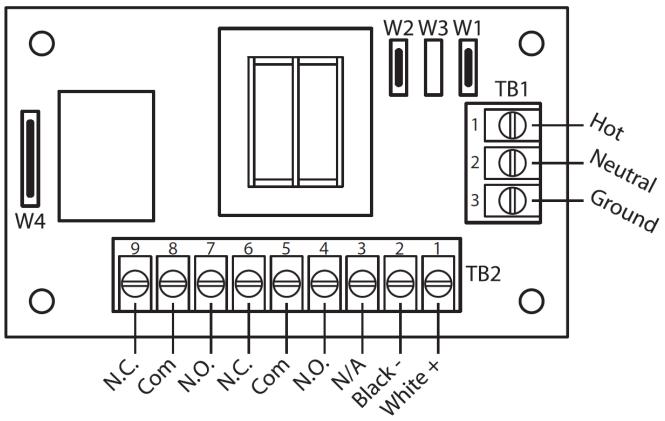
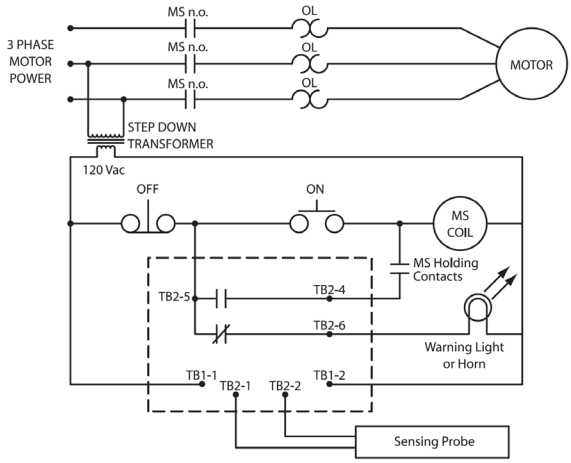
Installation Instructions

The sensing probe is installed on the most critical vibrating part of the equipment to be monitored. The probe must be mounted within 15 degrees of horizontal. Two 1/2" holes in the probe are provided for easy installation on equipment. The control unit can be installed up to 500 feet from the probe. Where severe vibration is encountered, a cable splice close to the probe is recommended, so possible cable breakage may be repaired without also replacing the probe.

Control Unit Wiring Diagram



Typical Wiring Diagram



Technical Specifications

Voltage	
Input	115 Vac ± 10%, 50-60Hz @ 30mA 230 Vac Optional ± 10%, 50-60Hz (Factory set with jumpers)
Output	+24 Vac 10%, unfiltered, @ 10mA ± 10% with relay de-energized + 8.5 Vac ± 10%, unfiltered, @ 50 mA ±10% with relay energized
Relay Contacts	DPDT 10 Amp @ 120 Vac Resistive
Failsafe	Relay energized when powered and not alarmed
Cable	8' Standard Cable
Temperature Specifications	
Operating Temperature	0° C to +55° C
Miscellaneous	
VS-Series NEMA 4X	0.75 lb (0.34 kg)
VS-Series XP	5.70 lb (2.59 kg)
VS-Series XP (w/Window)	5.90 lb (2.68 kg)

Specifications subject to change without notice.

Ordering

Model Description	Part Number
VUM-800 Controller Internal 115 VAC	750-038900
VUM-800 Probe	775-080000
VUM-800 25' Cable	775-080001
VUM-800 Probe W/ Strain Relief	775-080002
VUM-800 115 VAC W/ NEMA 12 Enclosure	800-008900
VUM-800 230 VAC W/ NEMA 12 Enclosure	800-008901
Accessories	**Part Number**
NEMA 4 (6x4x3) Enclosure	285-000700
Cable 18 AWG Heavy-Duty	610-000300

Customization

If one of our standard products does not meet your specifications, please call one of our applications specialists. Many of our products can be customized to fit specific needs.

Additional Information

See Electro-Sensors.com for more information on our vibration monitors.