ELECTRO•SENSORS

Superior • Systems • Solutions

VUM-800
Vibration Monitor

- Heavy Duty Sensing Probe.
- DPDT 10 amp Relay.
- Optional 230 Vac Operation.
- Control Unit Remotely Mounted.
- Fail-Safe Operation.

Product Information

Description

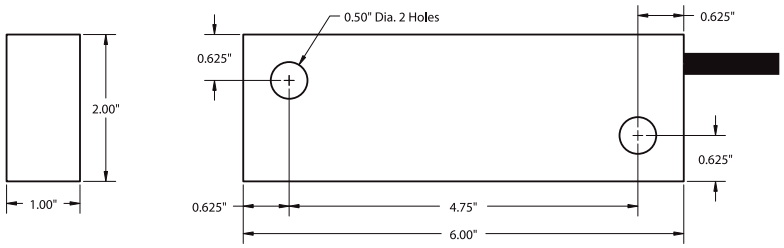
The Electro-Sensors VUM-800 Vibration Monitor confirms normal operation of processes utilizing continuous vibration. Since the VUM-800 measures actual vibration not motor rotation, power draw or any other implied measures, all sources of failure are detected: power loss, motor or gearbox failure, belt 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

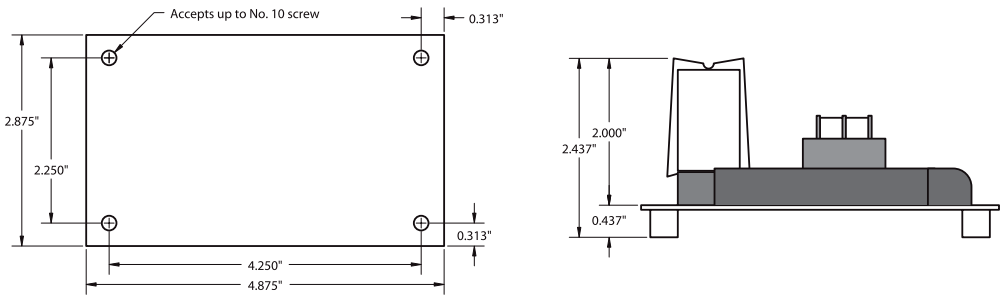
The VUM-800 consists of the sensing probe which is mounted on the vibrating equipment, a cable, and the relay control which is mounted remotely. Low voltage (24 Vac) is sent from the control unit to the probe. When the probe is vibrating, a mercury switch inside the probe is activated and contact is 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 break the circuit if there is no vibration.

Dimensional Drawings • VUM-800

Probe



Control Unit



Jamieson Equipment Company
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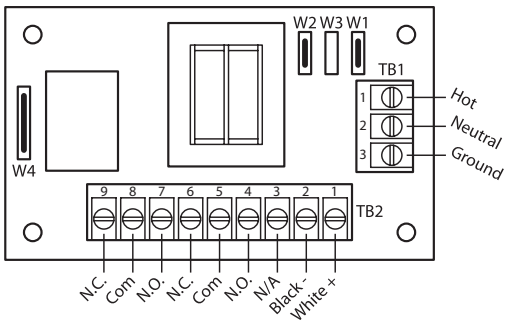
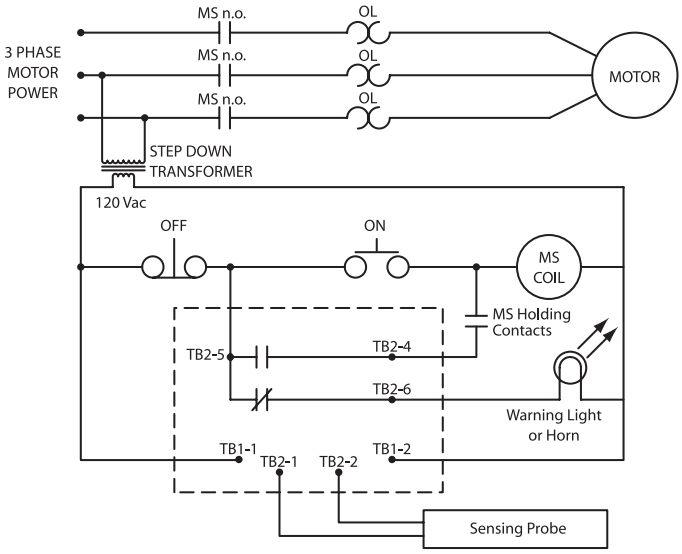
Installation Instructions

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 loss of the probe.

Control Unit Wiring Diagram



Typical Wiring Diagram



Specifications • VUM-800 Vibration Monitor

Input Power

Voltage ..... 115 Vac ± 10%, 50-60Hz @ 30mA
230 Vac Optional ± 10%, 50-60Hz
(Factory set with jumpers)

Output Voltage to Probe ..... +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

Operating Temperature ..... 0° C to +55° C

Terminal Strips ..... Captive wire-clamping plate screw
Rated 10 Amp @ 150 V

Cable ..... 2-conductor 16 AWG unshielded

Cable Length ..... 8 feet standard