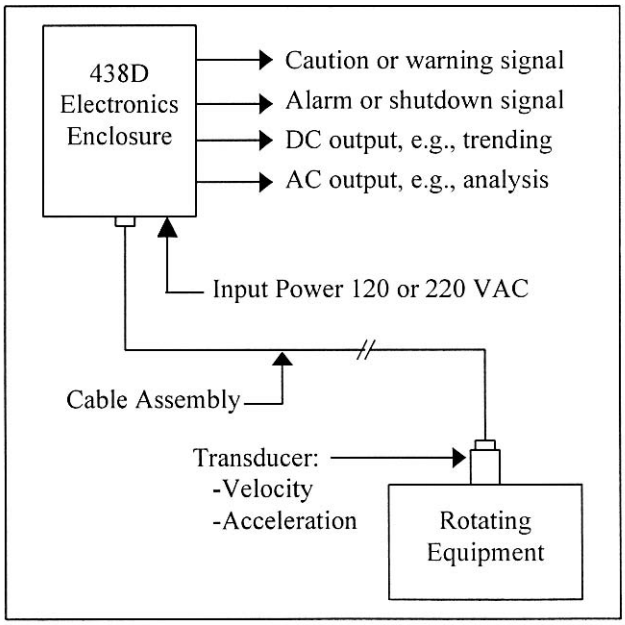
438D Vibration Switch

Transducer, Cable Assembly and Remote Enclosure

Shown with 1 of 5 available transducers and 1 of many cable assemblies.



The 438D is composed of 3 elements:

- **Vibration Measuring Transducer**
- **Cable Assembly**
- **Electronics Enclosure**

The transducer is located close to the rotating equipment being monitored. The electronics enclosure is remotely located to a place that is accessible. The cable assembly connects the two elements.

Note: The 438D is also a monitor (or Sentinel) with Vibration Switch features.

User Benefits

Broad-Range Protection

Provides protection across a wide range of vibration frequencies for detecting imbalance, misalignment, bad bearings and other machinery-related problems.

Vibration Level Setpoints

Two relays are included which activate when each of two Customer-specified vibration levels are reached. These relays can be connected to devices to provide visual, audible or external relay activation when the vibration limit has been reached or exceeded. The higher vibration level selected is often used to shut down the rotating equipment to avoid its damage.

Convenience

Only the transducer is mounted at the point of measuring the vibration, the Electronics Enclosure is located remotely for easy access.

Features

LED Display

The 3-digit LED provides continuous indication of vibration level, and also displays setpoint levels. Alarm and Trip LEDs energize when setpoints have been exceeded.

AC Output

Provides buffered and proportional vibration signal for easy interface with analyzers and other devices.

Remote Transducers

Allows you to choose the Transducer that will best suit your most demanding application. The 4033 transducers are well suited to high temperature mountings. The 4034 has a low price, with high output and a wide frequency response. The 4071 and 4073 provide a wide frequency range, ideal for both slow and high speed equipment.

SPECIFICATIONS

Full-Scale Range:

Switch selectable 0-1 or 0-3 in/sec (standard)
Switch selectable 0-.5 or 0-1 in/sec (optional)

Frequency Response: Velocity Transducers:

4033-400, 20-1,500 Hz
4033-500, 20-1,500 Hz
4034, 12-1,000 Hz
4071, 2.1-3,500 Hz
4073, 1.7-6,000 Hz

Dual Set Points:

2 Customer selectable, field adjustable from 5-100% of full scale.

Time Delay:

Field adjustable from 0-20 seconds.

Relays (solid-state triacs):

Rated at 1 amp; field switch selectable, normally open or normally closed below setpoints. Field selectable, latching or non-latching. Remote reset capability. Relay inhibit capability.

Input Power:

120 or 220 VAC, field selectable.

DC Analog Output:

4-20 mA DC.

AC Output:

Proportional to input transducer:
Velocity transducers, 100 mV/sec.
Acceleration transducers, 100 mV/g.
Brought to BNC on side of Electronics Enclosure.

Mode of Measurement:

Velocity.

Sensor Mounting:

1/4"-28 stud.

Electronics Enclosure:

NEMA 4 with hinged front door.

Electronics Enclosure Display:

3-digit LED.

Temperature Range:

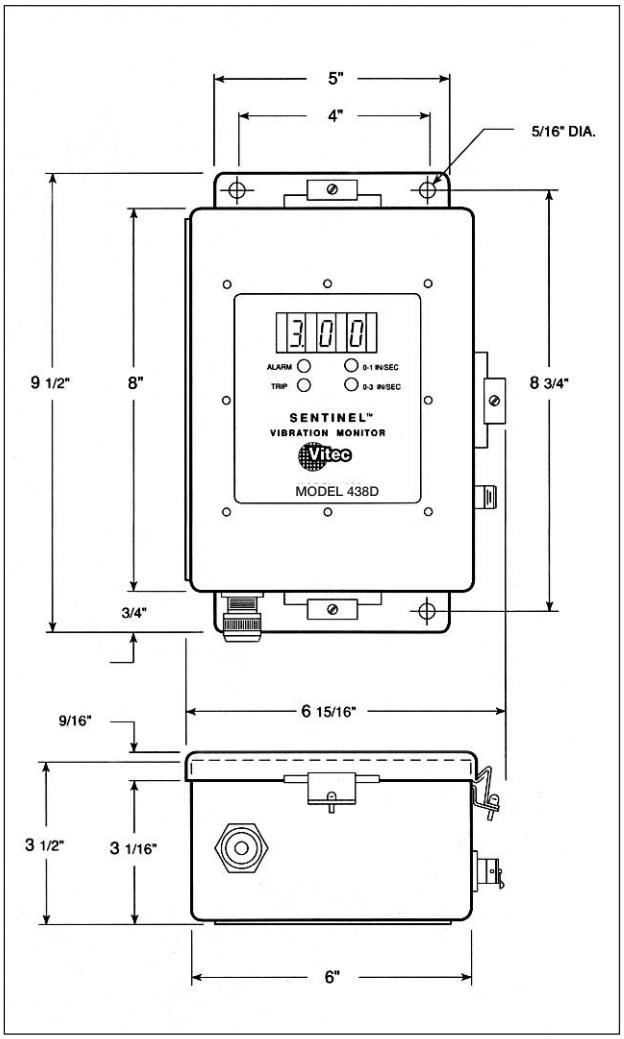
Electronics Enclosure: –20 to 160 F

Transducer:
4033-400, –20 to 400 F
4033-500, –20 to 500 F
4034, –30 to 160 F
4071, –50 to 180 F
4073, –65 to 250 F

Options:

High-pass, Bandpass, Low-pass Filtering. Explosion-proof transducer housing.

Electronics Enclosure Dimensions:



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