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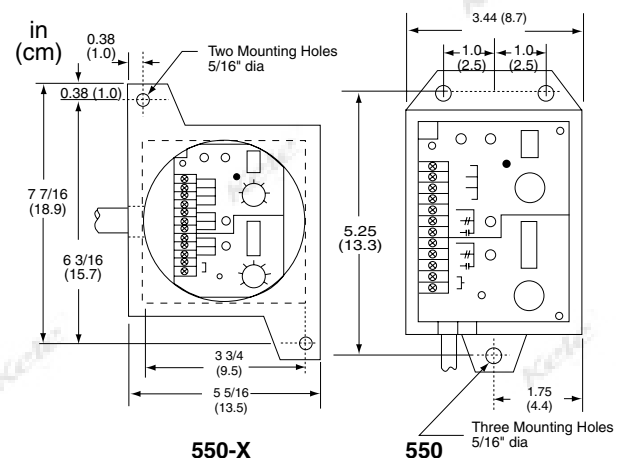
DESCRIPTION

The **Balmac Model 550 Vibration Transmitter/Switch** provides low cost, reliable vibration protection for rotating machinery operating within the range of 120- 60,000 rpm. The switch's vibration sensor, mounted perpendicular to the unit's base, responds to the velocity (in/sec) signal and effects automatic shutdown or alarm when preset limits are exceeded. The unit may be mounted with the sensitive axis in any plane (horizontal, vertical, or axial), even in an inverted position. Two limit set points are provided. One is set for the maximum allowable vibration (in/sec), while the other is set for a percentage of that setting, which trips the alarm relay when that percentage is reached. A built-in, adjustable time delay prevents triggering due to transient vibrations. The switch can be wired for automatic reset when vibration falls below setpoint, or it can be wired for latch and remote reset. The unit has a 4-20 mA output that may be used with a panel meter or data logger, permitting analysis of vibration trends. Once the switch has been installed and the limits set, it requires no attention. The **Model 550** is enclosed in heavy, water-tight cast-aluminum housing. Explosionproof housings are available.

FEATURES

- **Reliable performance**
- **Dual SPDT relay and 4-20 mA output**
- **Easy to install**
- **Two year warranty**

DIMENSIONS



550-X

550

SPECIFICATIONS

Supply Voltage	115 VAC	Wiring Terminations	Terminals accepts up to 12 AWG wire
Accuracy	±5%	Operating Temperature	-30° to 165°F (-34° to 74°C)
Frequency	50/60 Hz	Enclosure Rating	
Signal Output	4-20 mA @ 500Ω	550	Rugged, water- and dust-tight cast aluminum NEMA 3, 4, and 12
Vibration Sensitive Axis	Perpendicular to the base, omnidirectional mounting	550-x	NEMA 7CD, 9EFG
Measurement Range	0.1-2.75 in/sec (2.5-70 mm/sec)	Dimensions	
Frequency Range	2-1000 Hz (120-60,000 rpm)	550	3.44"W x 5.937"H x 3.88"D (8.73 x 15.09 x 9.84 cm)
Relay Output	SPDT relay 5A @ 125 VAC; 5A @ 28 VDC	550-X	5.3"W x 7.4"H x 4.8"D (12.2 x 18.1 x 11.4 cm)
Time Delay	1-30 seconds	Weight	
Limits	Limit #1 (alarm) Set as a percent of Limit #2 (shutdown) Limit #2: (shutdown) Set at a velocity level in inches/sec	550	3.6 lb (1.6 Kg)
Remote Reset	Circuit closure between latch and common will reset both outputs	550-X	6 lb (2.7 Kg)
Mounting	1/4" hardware, 3 mounting holes	Warranty	1 year



GAS & SPECIALTY SENSORS

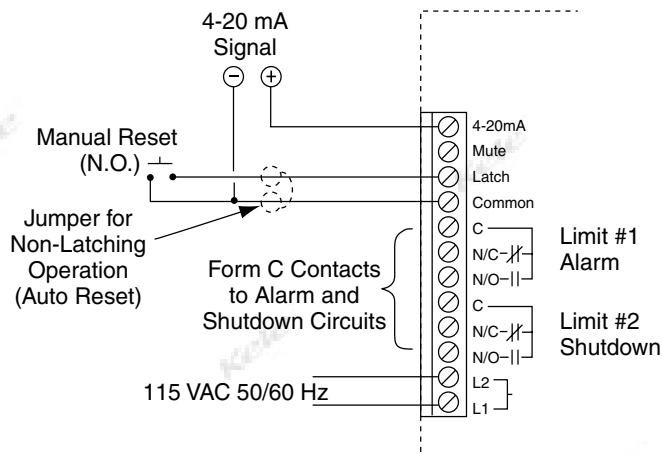
VIBRATION TRANSMITTER / SWITCH

550

WIRING

The wiring access is through the 3/4" NPT conduit hole on the side of the switch enclosure. Wiring subject to physical damage should be adequately protected. When installing electrical conduit, a short length (12") of flexible conduit must be used between the vibration switch and an associated junction box. This construction will provide some vibration isolation in the conduit line. Conduit and fittings should conform to the environment of the vibration switch location. In hazardous locations, the proper explosionproof fittings should be used. Weather-resistant or rain-tight fittings should be used to protect the switch wiring from a humid or corrosive atmosphere.

Note: Make all connections in accordance with national and local codes.



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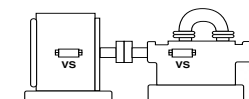
GAS & SPECIALTY SENSORS

OPERATION

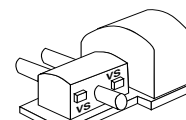
The 550 is a self-contained, vibration protection limit switch. It guards against destructive levels of vibration by tripping a relay that has a user-adjustable limit setpoint in terms of vibration velocity (in/sec). This relay output is connected to an alarm or control system to provide a warning or shutdown. It mounts at the monitoring point and is enclosed in a watertight, heavy castaluminum housing. Terminals are provided for remote or manual reset. A 4-20 mA output for recording or metering can connect to a remote readout panel meter or BAS controller.

NOTE: You must ensure that the switch is rigidly attached to the monitoring point for the proper sensing of the vibration.

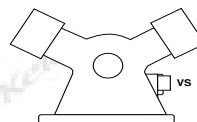
TYPICAL INSTALLATIONS



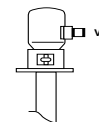
Centrifugal Compressor



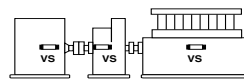
Reciprocating Compressor



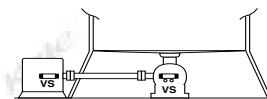
Y-Type Compressor



Vertical Pump



Engine Gear Compressor



Cooling Tower Fan

ORDERING INFORMATION

MODEL	RANGE	NUMBER OF LIMITS	ENCLOSURE
550	0.1 to 2.75 in/sec	2	NEMA 3, 4, 12 Aluminum
550-X	0.1 to 2.75 in/sec	2	NEMA 7CD, 9EFG