

EVS440 ELECTRONIC VIBRATION SWITCH

1. OVERVIEW

The EVS440 electronic vibration switch is intended for general purpose vibration measurements on a wide range of rotating machinery, utilizing digital circuit and piezoelectric accelerometer to detect the vibration level and providing dual relay contacts signal and 4-20mA signal proportional to vibration level. The simple three keys allow setting alarm setpoint, interlocking setpoint and timing delay. And a built-in LCD displays the real-time vibration level and configurations in the field. When the vibration level is above either of the preset alarm setpoint or interlock setpoint, state of the corresponding relay contacts changes providing a discrete signal. Two modes of remote reset and magnet reset can also be selected for the EVS440 and if there is limit room for mounting it, an optional external accelerometer version (100mV/g) is available. It has capabilities of high measurement accuracy and strong anti-interference, which allows uses on pumps, reciprocating compressors, centrifugal machines, cooling towers, industry fans, motors, engines and diesels etc. It is a proper substitution of imported ones.

2. FEATURES

- Optional 24VDC/220VAC power supply voltage regardless of polarity
- Built-in LCD display
- Dual alarm setpoint for standard
- three-key setting feature
- Remote and magnet reset modes
- "slop restriction technology
- Anti-electromagnetic and RF interference
- Optional external accelerometer
- Dual electrical interface

3. APPLICATIONS

- Pumps
- Reciprocating compressors
- Centrifugal machines

MODEL EVS440

- Cooling towers
- Industry fans
- Motors
- Engines
- Diesels

4. TECHNICAL SPECIFICATIONS

Sensor: Internal piezoelectric accelerometer or external acceleration sensor

Relay output: dual alarms outputs, solid-state 220VAC@3A or 30VDC@3A,NC,NO,latching or non-latching can be selected via a dial

Maximum vibration output: 0-490m/sec² (50g)

Peak value: 0-100mm/sec (4in/sec) peak

Accuracy: ±2%

Frequency response: 2-500Hz

Adjustable alarm time delay: factory default= 3 sec. and field adjustable from 0-15 sec.

Temperature range(operating): -25°C~+85°C

Temperature drift: less than 0.05%°C (calibrating temp. is 25°C)

Cross axis response: Less than 1%

Input power: 110-275VAC, 50/60Hz or 18-30VDC, regardless of polarity

Insulation: Power to circuit

Linearity: ±0.5%

Wiring: accept up to 18AWG, pluggable terminals

Terminals: 500 Vrms insulation from case

Case: Cast aluminum

Protection grade: IP66 for non explosion proof areas and instead, select EVS1105 for hazardous areas.

5. SELECTION GUIDE

EVS440 -AAA- BCDE
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AAA	Measurement range
	vibration velocity peak value

100	12.7mm/s, pk
101	25.4mm/s, pk

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	102	50mm/s, pk
	105	32mm/s, pk
	106	40mm/s, pk
	107	80mm/s, pk
Vibration velocity effective value(RMS)		
	130	12.7mm/s, rms
	131	25.4mm/s, rms
	132	50mm/s, rms
	135	32mm/s, rms
	136	40mm/s, rms
	137	80mm/s, rms
vibration displacement peak value		
	151	100 μ m, pk-pk
	152	125 μ m, pk-pk
	153	150 μ m, pk-pk
	154	200 μ m, pk-pk
vibration acceleration peak value		
	102	2g, pk

	105	5g, pk
	108	8g, pk
Vibration acceleration (RMS)		
	002	2g, rms
	005	5g, rms
	008	8g, rms
B Input power		
	1	110-275VAC, single phase, 50/60HZ
	2	18-30VDC
C Relay type		
	0	DC, 30VDC, 3A
	1	AC, 220VAC, 3A
D sensor		
	0	Internal
	1	External 100mv/g accelerometer (recommended AS9200)
E Electrical interface		
	1	Dual 1/2" NPT (in)
	2	Dual M20x1.5 (in)

6. DIMENSIONS (unit: mm/in)

