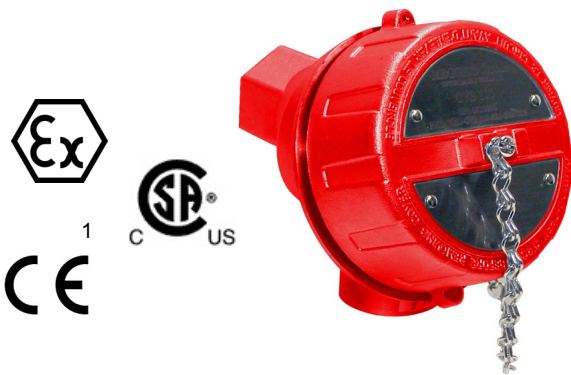


Electronic Vibration Switch (EVS-2)



Features

- Vibration (0 to 3.0 ips peak)
- Suitable for Universal use - with mounting at any angle
- Aluminum Housing
- 4 to 20 mA Analog Vibration Signal
- RAW Signal 100 mV/g
- Two Relays
- Rugged Design

1 Products covered by this bulletin comply with 2004/108/EC (European electromagnetic compatibility) except as noted.

The **Electronic Vibration Switch (EVS-2)** protects against equipment failure by monitoring velocity-based vibration levels and providing an early warning or shutdown when abnormal vibration is detected.

The EVS-2 can be connected to Murphy's TTD™ Annunciator, Centurion™ or Centurion PLUS™ controllers for increased functionality. It complements Murphy's VS2™ shock and excessive vibration/pulsation switch designed to detect abnormal shock or pulsation due to equipment failure and to shutdown other equipment in a system to prevent further damage.

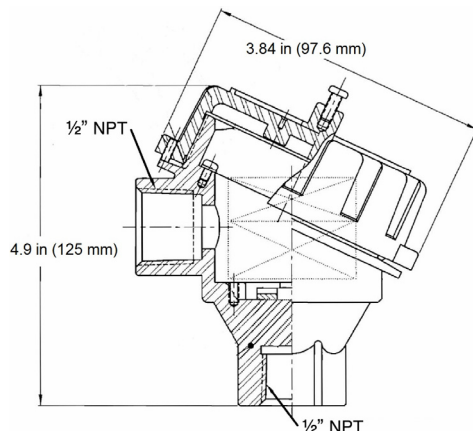
The EVS-2 offers two adjustable level detectors with definable response delay for either Warning or Shutdown alarms. Measuring ranges and response times of the level detectors are set by DIP switch. The assigned relay powers a warning or shutdown alarm.

The EVS-2 can be used on any equipment where abnormal vibration could lead to equipment damage, including:

- Cooling Fans
- Engines
- Pumps
- Compressors
- Gear Boxes
- Motors
- Generator Sets

- Imbalance and misalignments
- Defective sleeve bearings
- Broken tie-down bolts
- Defective ball or roller bearings
- Gear mesh
- Blade-pass frequencies
- Detonation or broken parts

The EVS-2 can monitor and alert the operator of abnormal vibration caused by a variety of factors, including:



Terminal Connections

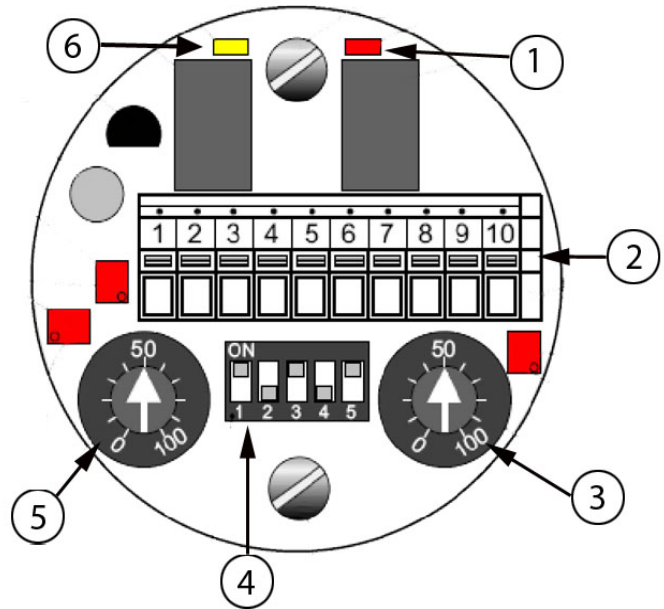
1	+24 V DC
2	0 V DC
3	Relay K1 NC
4	Relay K1 COM
5	Relay K1 NO
6	Relay K2 NC
7	Relay K2 COM
8	Relay K2 NO
9	Analog Output 4 – 20 mA
10	RAW-Signal – 100 mV/g

Specifications

PERFORMANCE		RELAY	
Vibration Range (Adjust jumper S1)	0.75, 1.5 or 3.0 IPS Peak	Switch Contact Capacity	30 VDC/1A, 150 VAC/0.46 A
Frequency Range	5 to 1000 Hz	Relay Function	Non-latching
Analog Output (R_{load})	4-20 mA \leq 500 Ω	Threshold Set Point	10 to 100% of Alarm Set Point
RAW Signal (R_{load})	100 mV/g (offset +5VDC) \leq 20 k Ω	Normally Energized (NE)	Fail Safe
ENVIRONMENT		Time Delay (Adjust DIP switch S1 and S5)	1 or 5 seconds
Operating Temperature	-22°F to + 185°F (-30°C to + 85°C)	PHYSICAL	
Storage Temperature	-40°F to + 185°F (-40°C to + 85°C)	Housing Material	Aluminum / Epoxy Paint (Red)
Enclosure Classification	IP68	Weight	1.5 Lbs (0.7 Kg)
Cable Connection	½ NPT, IP66, IRA 06 ATEX 1188 X SIRA 07 ATEX 4327 X	Size (H x W)	4.9 in. x 3.9 in. (125 x 100 mm)
ELECTRICAL		Mounting Threads	½" NPT Female, ½" NPT Male/Male SS
Sensor Type	Accelerometer	INDICATORS	
Power Required	20 to 30 VDC	Alarm (LED)	Yellow
Current Draw	< 40mA	Shutdown (LED)	Red
Electrical Connectors	Spring Terminals		
APPROVALS			
CSA (c/us)	Class I, Div. 1, Grp A, B, C, D (T5) Class II, Div. 1, Grp E, F, G (T5) Class III, (T5)		
ATEX	Ex d IIC T6 IP68, Ex tD A21 T100°C IP68		

Mechanical Diagram

1	Red Channel 2 LED (K2)
2	Spring Terminal 16-24 AWG.
3	Channel 2 (K2) Vibration Set Point Potentiometer (Pot)
4	DIP switches for vibration ranges and time delays
5	Channel 1 (K) Vibration Set point Potentiometer (Pot)
6	Yellow Channel 1 (K1) LED



How to Order

A single model provides all the features and benefits described in the bulletin. Order EVS-2 (PN: 20-70-0242).