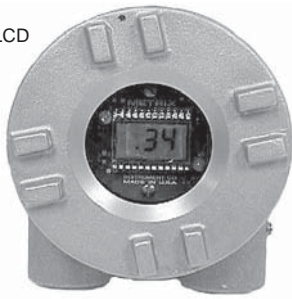


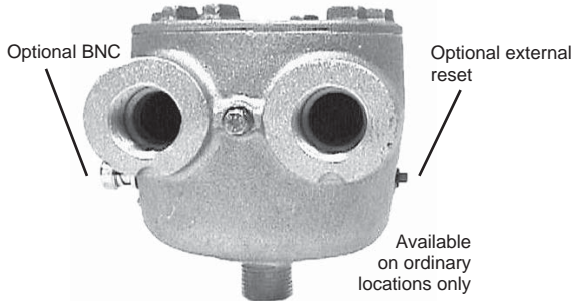
Electronic Vibration Switch SW6000 Explosion proof housing

Shown w/LCD

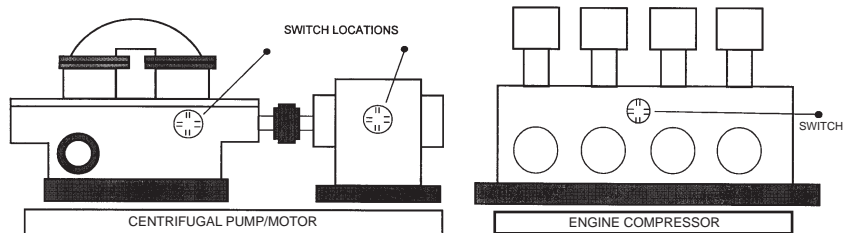


This electronic switch is a versatile excessive vibration protection instrument. In its standard configuration, the SW6000 is an economical single set point vibration switch loaded with standard features and packaged in an industrial grade housing.

Fully configured, the SW6000 provides for local machine control with optional LCD readout, real time remote operator interface via 4-20 mA and an external BNC (weather-proof only) for easy analyst access to the buffered dynamic vibration signal. Optional hazardous area certifications.



Typical Installations



Features

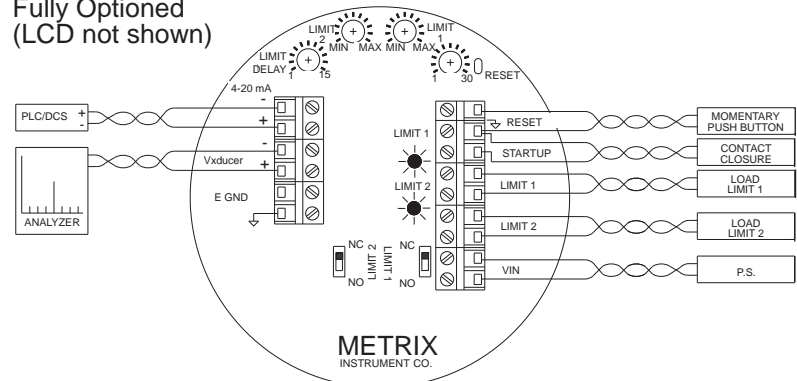
- Low cost, unitized protection system
- Weatherproof/optional ex-proof rated
- Single or optional dual setpoint
- Velocity or displacement response
- Adjustable trip delay
- Setpoint test feature
- Buffered, dynamic vibration signal output for analysis

Applications

- Centrifugal Pumps
- Reciprocating Compressors
- Centrifuges
- Cooling Towers
- Industrial Fans
- Electric Motors
- Natural Gas/Diesel Engines

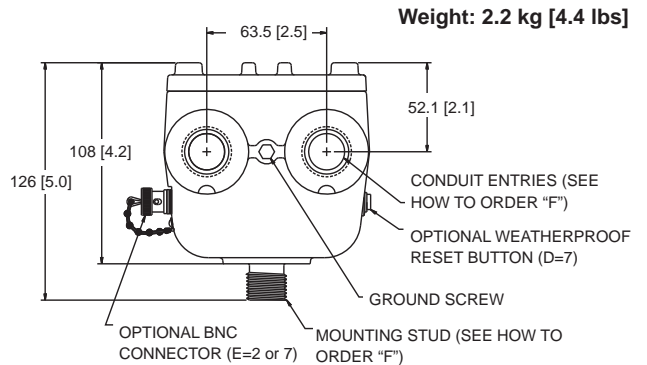
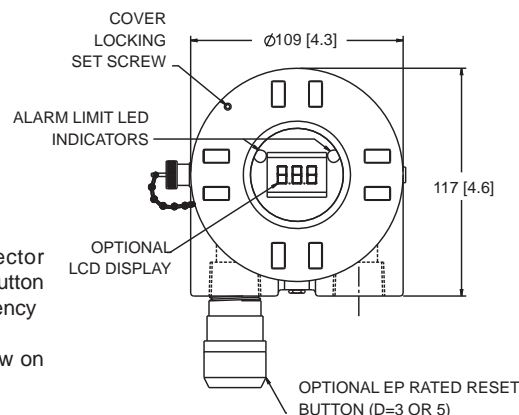
User Wiring Diagrams

Fully Optioned (LCD not shown)



Note: If you require an external seismic sensor for size, frequency response or temperature considerations, see SM series models.

Weight & Dimensions



Dimensions in mm [inches]

Note:

- 1) Optional BNC connector and weatherproof reset button available only on non-agency approved locations.
- 2) Cover locking set screw on CENELEC versions only.

Electronic Vibration Switch

SW6000 Explosion proof housing

Specifications

Sensor: Internal piezoelectric accelerometer.
Signal Conditioner: Amplifier/integrator to obtain velocity or displacement response.
Triac Outputs: "A" = 1, 2, 5 or 6; 250 VAC, 1A, optically isolated; standard is N.C. (fail-safe), N.O. field selectable.
Maximum Vibration Input: 0 to 490 m/sec² (50 g), peak; 0 to 100 mm/sec (4 in./sec), peak
Frequency Response:
 Velocity: 2 Hz to 500 Hz
 Displacement: 2 Hz to 200 Hz
Adjustable Trip Delay: Factory set at 1 sec.; 1-15 sec adjustable
Temperature Limits:
 No Display: -40° to +85°C (-40° to +185°F)
 W/Display: -10° to +70°C (+14° to +158°F)

Output Sensitivity vs Temperature: Less than .05%/°C (calibrated at 25°C)
Cross Axis Response: Less than 10%
Input Power:
 Nom. 115 VAC, 95 to 125, 50/60 Hz
 Nom. 230 VAC, 190 to 250, 50/60 Hz
 Nom. 24 VDC, 20 to 28
Galvanic Isolation: Power from circuit.
Optional Buffered, Dynamic Signal Output:
Sensitivity: 100 mV/g ±2% @ 25°C.
Frequency Response:
 Acceleration: 2 Hz to 500 Hz
 Non-linearity: Less than 1% of full scale (F.S.)
Field Wiring: Maximum wire gauge: 14 AWG; Wire clamp type screw terminal block 500 Vrms isolation from circuit

Housing: Cast aluminum. Weatherproof.
Environmental Rating: NEMA 4, IP 65
Electromagnetic Compatibility: CE Marked
Optional Hazardous Area Certification: Ordering Options "D"
Optional Display: 2½ digit LCD
Optional FET Transistor Output: 50 VDC, 0.5 A, N.C. (fail-safe) standard, N.O. field selectable
Optional 4-20 mA Source Output: Proportional between 4-20 mA with 20 mA set to full scale. Zero and Span calibrated ±2%. Non-linearity < 2%. 600 ohms maximum load resistance.

Ordering Options

SW6000 - -

A Limits & Display

WITHOUT DISPLAY

1	= one limit, triac
2	= two limit, triacs
3	= one limit, FET
4	= two limits, FETs

WITH DISPLAY

5	= one limit, triac
6	= two limit, triacs
7	= one limit, FET
8	= two limits, FETs

Note: Use triacs in motor starter circuits. FET transistor output(s) recommended for PLC DC inputs.

B Full Scale Range

VELOCITY RESPONSE

0 1	= 1 ips, pk*
0 2	= 2 ips, pk*
0 3	= 20 mm/sec, pk*
0 4	= 50 mm/sec, pk*

DISPLACEMENT RESPONSE

5 1	= 20 mils, pk-pk
5 2	= 50 mils, pk-pk
6 1	= 200 microns, pk
6 2	= 500 microns, pk

*For true RMS velocity calibration add 30 to dash number, e.g. -01 becomes -31.

C Input Power

1	= 115 VAC, single phase, 50/60 Hz
2	= 230 VAC, single phase, 50/60 Hz
3	= 20 - 28 VDC

D Certifications Local Reset Options

2	= CSA, NRTL/C, Class I, (B, C & D), Div 1
3	= CSA, NRTL/C, Class I, (B, C & D), Div 1 w/external reset
4	= CE & CENELEC Eex d IIB + H ₂ T4
5	= CE & CENELEC Eex d IIB + H ₂ T4 w/external reset
8	= Non-agency approved locations
9	= Non-agency approved locations with external reset

E Input/Output Options

0	= No options
2	= External BNC for dynamic signal access*
5	= 4-20 mA proportional to full scale range and separate startup and monitor time delays
7	= Options 2 & 5*

* D = 6 or 7 only

F Mounting/Conduit Entries

0	= 1/2" NPT stud mount/3/4" NPT conduit entry
1	= M20 x 1.5 stud mount/M20 x 1.5 conduit entry

Accessory

Part Number	Name	Used With	Description
7084-001	Flange Mounting Adapter	Any SW6000 with 1/2" NPT stud ("F"= 0)	S.S. adapter for surface mount of SW6000. 1/2" NPT center hole. Three equally spaced 6.6 (.26) dia. mount holes on 38 (1.50) dia. circle.

7084



WEIGHT: 0.5 KG
[1 LB]