

- SPECIFICATIONS:**
- Vibration Range: Velocity: 1 ips, 2 ips, 5 ips, pk (Maximum vibration input of 50g or 5 ips, peak)
20 mm/sec, 50 mm/sec, 100mm/sec, pk
 - Displacement: 20 mils, 50 mils, 100 mils, pk-pk.
200 microns, 500 microns, 1.0 mm, pk.
 - Detection Method: RMS and RMS*1.414 (RMS scaled to peak or peak to peak).
 - Frequency Range: Velocity response: SW6000: 2 Hz - 500 Hz ±3 dB with internal sensor;
SM6100: 2 Hz - 3000 Hz ±3 dB with external sensor, 50 g limit
Displacement response: SW6000: 2 Hz - 200 Hz ±3 dB with internal sensor;
SM6100: 2 Hz - 200 Hz ±3 dB with external sensor, 50 g limit.
 - Linearity Error: Less than 1% @ 25°C
 - Alarm Limit(s): Single limit standard, second limit optional,
Adjustable from -10 to 110% of range, 2% repeatability.
 - Startup Trip Delay: Standard delay is fixed at 30 seconds.
Optional remotely retriggerable startup delay adjustable from 1 - 30 seconds.
 - Limit Trip Delay: Fully adjustable time delay of 1 - 15 seconds.
 - Alarm Test: Setpoint adjustment to below 0% of range causes triac actuation.
 - Trip Indicators: Amber LED (limit 1); red LED (limit 2).
 - Reset: Standard via internal reset switch, remotely via momentary (retriggerable) or continuous contact closure, or with optional external explosion-proof reset switch.
 - Triac Outputs: Standard latching triac(s): field selectable N.O. or N.C.,
250 VAC, 1A, optically isolated. Holding current 35 mA maximum at 25°C (60 mA at -40°C).
Optional latching, FET, field selectable N.O. or N.C., 50VDC, 0.5A (DC only).
 - Optional Analog Output: 4-20 mA DC, 600 ohms max., +/- 5% accuracy, current limited to 26 mA,
Temperature drift 0.1% Fullscale/°C
SM6100: If external sensor not OK, current forced to < 3.6 mA.
 - Power: 95 to 125 VAC or 190 to 250 VAC, 50/60 Hz; 20-28 VDC, isolated from circuits.
 - Buffered Dynamic Signal: Access via internal terminals. SW6000: Internal sensor 100 mV/g, no bias voltage present;
SM6100: Bias voltage present for remote inputs with current source.
Maximum total cable capacitance .03 microfarads (300m/1000 feet, typical).
 - Environment Rating: NEMA 4, IP 65, CE mark.
 - Optional Hazard Ratings: CSA & NRTL/C, Class 1, (B, C & D), Div 1;
CENELEC EEx d IIB + H2 T4
LCIE 02ATEX 6157X  II 2 G
 - Temperature Rating: -40°C to +85°C, without display; -10°C to +70°C, with display.
-40°C to +85°C, CENELEC rating without display
 - Enclosure: Cast copper free aluminum, with threaded cover.
 - Mounting: Stud mounting; 1/2-14 NPT (standard) or M20 X 1.5 straight thread with jam nut. Optional 8982-XXX accessory mounting plate for 5509B retrofit support. Consult factory for other mounting options.
 - Optional Indicator: Visible 2.5 digit LCD, rotatable in 90° increments. Temperature drift 0.1% Fullscale/°C. Window provided only with indicator.
 - Remote sensor Inputs: SM6100: 10-100 mV/g, 100-500 mV/ips requires constant current source at 4 mA or 10 mA selectable with jumper;
100-500 mV/ips self generating velocity transducer,
Green LED sensor OK circuit.
 - Weight(max): 2 Kg.



DIMENSIONS ARE IN mm [inches]

MATERIAL:	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. ALL CORNERS BROKEN TO .010 MIN RADIUS AND TOLERANCES ARE:	APPROVALS	DATE	METRIX HOUSTON, TEXAS U.S.A.
FINISH:		DRAWN BY:	A. Wilson 01-29-97	
THIS DOCUMENT AND ALL INFORMATION HEREON IS THE PROPERTY OF METRIX INSTRUMENT CO. APPROVAL MUST BE OBTAINED BEFORE IT IS REPRODUCED OR INFORMATION HEREON IS ISSUED TO A THIRD PARTY. THIS DOCUMENT MUST BE RETURNED UPON REQUEST.	FRACTIONS: DECIMALS: ±1/64 .XX ±.01 :XXX ±.005 ANGLES: ±1° SURFACE FINISH 64	CHECKED BY:	D. DOBSKY 09-24-98	
		APPROVED BY:	R.L. MORRISON 09-24-98	
		SM6100		SIZE B
		SW6000		DRAWING NO. 8910
		NEXT ASSY USED ON		REV. F
		APPLICATION	DO NOT SCALE DRAWING	SCALE: .75:1
				SHEET: 1 of 3

SW6000 - -

Standard Part Number: simplest configuration

6000-1011-000

Feature Selections

A Limits and Display

- 1 = One limit, triac
- 2 = Two limits, triacs
- 3 = One limit, FET
- 4 = Two limits, FETs
- 5 = One limit, triac, with display
- 6 = Two limits, triacs, with display
- 7 = One limit, FET, with display
- 8 = Two limits, FETs, with display

B 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*
 - 0 5 5 ips, pk*
 - 0 6 100 mm/sec, pk*

* add 30 to part number for RMS calibration
EX: 6000-1311-001, similar to example above
except with RMS calibration

Displacement Response

- 5 1 20 mils, pk-pk
- 5 2 50 mils, pk-pk
- 5 3 100 mils, pk-pk
- 6 1 200 microns, pk
- 6 2 500 microns, pk
- 6 3 1.0 mm, pk

C Input Power

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

D Hazard Area Rating/Local Reset Options

Painted Steel Housing

- 0 = Not available on E.P. versions
- 1 = Not available on E.P. versions

Cast Aluminum Housing

- 2 = Class I (B, C & D), Div 1
- 3 = Class I (B, C & D), Div 1 with external reset
- 4 = CENELEC EEx d IIB + H2 T4A
- 5 = CENELEC EEx d IIB + H2 T4A with external reset
- 6 = Not available on E.P. versions
- 7 = Not available on E.P. versions

E Input/Output Options

- 0 = Standard
- 1 = 4-20 mA proportional to full-scale range
- 2 = Not available on E.P. versions
- 3 = Adjustable startup trip delay
- 4 = Not available on E.P. versions
- 5 = Options 1 & 3
- 6 = Not available on E.P. versions
- 7 = Not available on E.P. versions

NOTE: Options 2, 4, 6, and 7 not available
on hazardous area (D=2, 3, 4, 5) versions

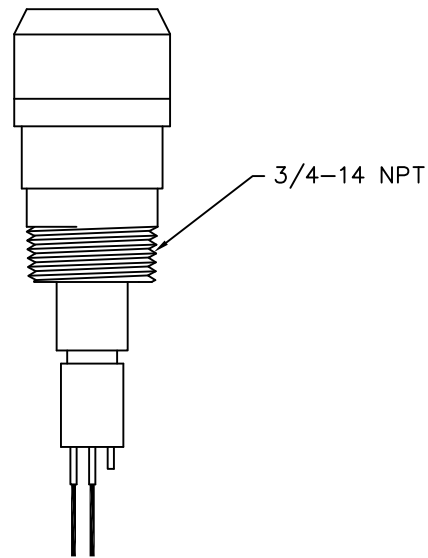
F Mounting / Conduit Entry

Cast Aluminum Housing

- 0 = 1/2" NPT stud mount /
3/4" NPT conduit entry (standard)
- 1 = M20 x 1.5 stud mount /
M20 x 1.5 conduit entry
- 2 = 1/2-20 UNF straight thread
stud mount with jam nut /
3/4" NPT conduit entry
- 3 = 3/4" NPT stud mount /
3/4" NPT conduit entry

Painted Steel Housing

- 8 = Not available on E.P. versions
- 9 = Not available on E.P. versions



OPTIONAL EXPLOSION PROOF
RESET SWITCH

SW6000

METRIX HOUSTON, TEXAS U.S.A.			
SPECIFICATIONS, EXPLOSION PROOF MODEL SW6000/SM6100 VIBRATION SWITCH			
SIZE B	DRAWING NO.	8910	REV. F
SCALE:	SHEET: 2 of 3		

SM6100 - - -

Standard Part Number: simplest configuration

6100-1011-000

Feature Selections

A Limits and Display

- 1 = One limit, triac
- 2 = Two limits, triacs
- 3 = One limit, FET
- 4 = Two limits, FETs
- 5 = One limit, triac, with display
- 6 = Two limits, triacs, with display
- 7 = One limit, FET, with display
- 8 = Two limits, FETs, with display

B Range

Velocity Response

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- 0 5 5 ips, pk*
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EX: 6000-1311-001, similar to example above
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- 5 2 50 mils, pk-pk
- 5 3 100 mils, pk-pk
- 6 1 200 microns, pk
- 6 2 500 microns, pk
- 6 3 1.0 mm, pk

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Cast Aluminum Housing

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- 5 = CENELEC EEx d IIB + H2 T4A with external reset
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NOTE: Options 2, 4, 6, and 7 not available
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- 2 = 1/2-20 UNF straight thread
stud mount with jam nut /
3/4" NPT conduit entry
- 3 = 3/4" NPT stud mount /
3/4" NPT conduit entry

Painted Steel Housing

- 8 = Not available on E.P. versions
- 9 = Not available on E.P. versions

G External Sensor Options

- 1 = Remote accelerometer
- 2 = Remote velocity transducer
- 3 = Remote piezo-velocity transducer
- 1, 3 = w/source
- 2 = w/o source

H Input Sensitivity

Specify input sensitivity with 3 digit number.

SM6100

METRIX
HOUSTON, TEXAS U.S.A.

SPECIFICATIONS, EXPLOSION PROOF
MODEL SW6000/SM6100
VIBRATION SWITCH

SIZE B	DRAWING NO. 8910	REV. F
SCALE:	SHEET: 3 of 3	