

Vibralert® Mechanical Switch 5550

Swann & Associates, Inc.
 1707B E. 28th St.
 Signal Hill, CA 90755
 562-492-1394
www.hazardouslocation.com



The Model 5550 vibration switch is designed to meet all requirements for mechanical switches in a single, affordable package. This unit provides economical vibration protection for low to medium speed machinery. An inertia sensitive mechanism activates an snap-action switch with SPDT output contacts if the vibration exceeds an adjustable setpoint. The Model 5550 contacts can be used to activate an alarm or initiate equipment shutdown. The housing is weatherproof with an optional hazardous area rating. Electrical (remote) reset with start-up time delay and a second set of SPDT output contacts to accommodate DPDT needs (e.g. separate trip and trip light circuits) are available.

Vibralert® is a registered trademark of Metrix Instrument Co.



Features

- Meets all requirements for mechanical switches in one package
- Weatherproof and optional hazard area rating
- Local and optional remote reset with startup delay
- SPDT or (2)SPDT switch output contacts

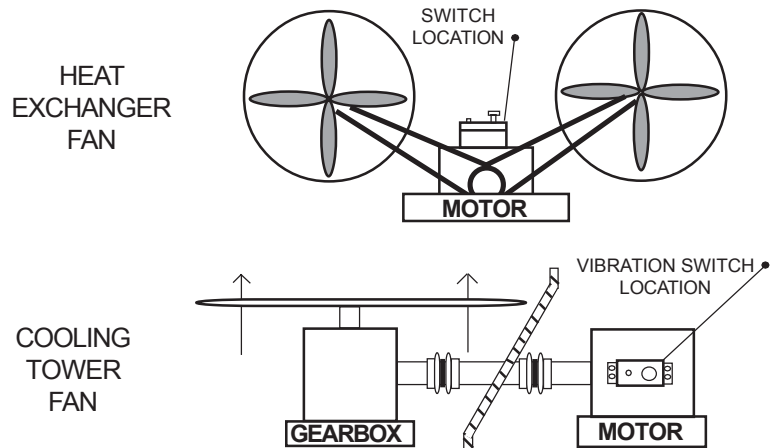
Applications

- Heat Exchanger Fans
- Cooling Tower Fans
- Recip Engines
- Recip Compressors

Note:

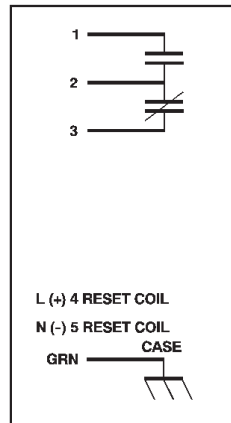
For an upgrade to velocity monitoring or for dual limits, see SW6000 Series electronic switches (pg 4.08).

Typical Installation Diagrams

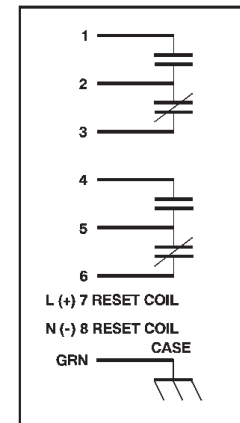


User Wiring Diagrams

SPDT CONTACTS



(2) SPDT CONTACTS



Note: (2) SPDT contacts and reset coil are optional.

Specifications

Function: Armature mechanism trips on high vibration and operates snap action switch(es).

Vibration Range: See How to Select "C"

Frequency Range: 0 to 3600 RPM

Set Point Adjust: 0 to 100% of range. External set point adjustment.

Reset: Local reset, plus optional remote reset electrical coil. See How to Select.

Start Delay: Applying reset coil voltage at start up holds mechanism from tripping for 20-30 seconds, after which the switch is automatically activated. Requires electric reset option (D'0).

Temperature Limit: -40° to +70°C (-40° to +158° F)

Enclosure: Cast Aluminum

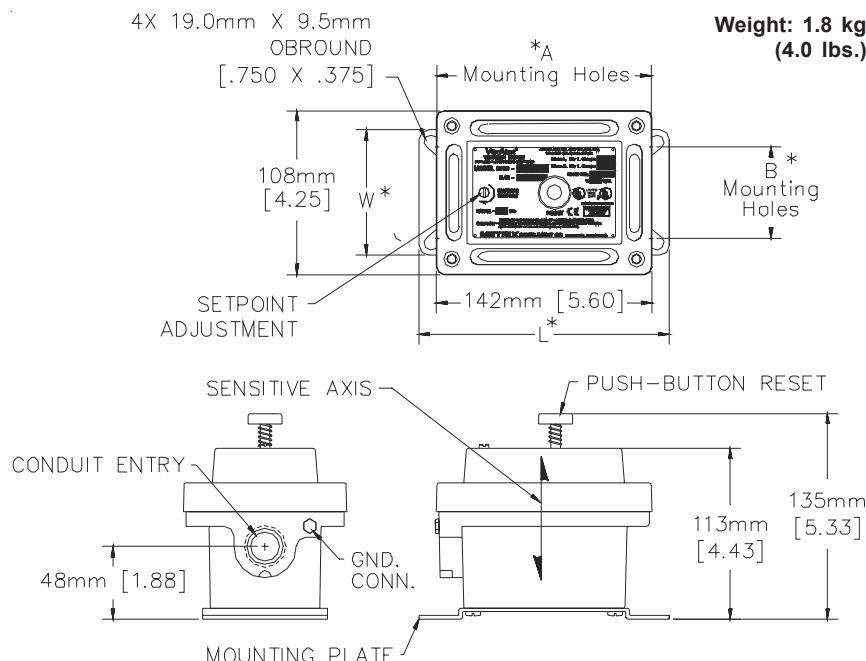
Environmental Rating: NEMA 4, IP 65 & CE mark

Switch Contact(s) Rating: 15 amps, 125, or 480 vac; 1/8 hp, 125 vac; 1/4 hp, 250 vac; 1/2 amp, 125 vdc; 1/4 amp, 250 vdc.

Hazard Rating: See How to Select "A"

Weight: 1.8 kg (4.0 lbs.)

Weight & Dimensions



How To Select

5550 - A B C - D E F

A Hazard Area Rating

0	= None
1	= UL, cUL Explosion Proof Class I, Groups C & D, Div 1, Class II, Groups E, F & G, Div 1
2	= UL, cUL Explosion Proof Class I, Groups B, C & D, Div 1, Class II, Groups E, F & G, Div 1
3	= CENELEC Flameproof EEx d IIB T6
4	= CENELEC Flameproof EEx d IIB+H ₂ T6

B Contacts

1	= SPDT
2	= (2) SPDT (use for DPDT too)

C Full Scale Vibration Range

1	= 5 g
2*	= 2 g
3	= 10 g

*Note: If D=3, unit may not be mounted horizontally.

D Reset Coil & Start Up Delay

0	= None
1	= 115 VAC
2	= 230 VAC
3*	= 24 VDC
4	= 115 VDC

*Note: If C=2, unit may not be mounted horizontally.

F Environmental Rating

0	= NEMA 4, IP 65, CE
1	= NEMA 4X, IP 65, CE

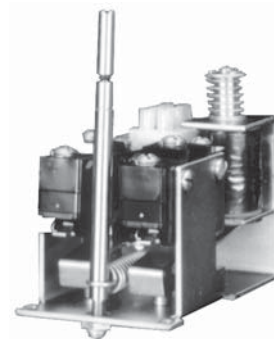
If left blank, NEMA 4, IP 65, CE unit is provided.

E Wiring Entry/Mounting Plate

(See chart below for E)

1	= 3/4" NPT/Metrix 5173 or 5175
2	= 3/4" NPT/Metrix 5097; VS-2-EX; 366
3	= 3/4" NPT/Metrix 5078; 365
4*	= M20 x 1.5/Metrix 5097; VS-2-EX; 366
5*	= Same as option 4 above w/ epoxy coated mounting plate
6*	= M20 x 1.5 / Metrix 5173 or 5175
7	= 3/4" NPT / PMC/BETA 440
8*	= M20 x 1.5 / Metrix 5078; 365

*Note: When option A = 1 or 2, option E can not = 4, 5, 6 or 8.



Internal Mechanism

SWITCHES

CHART FOR HOW TO SELECT "E"

	(L)	(W)	(A)	(B)
E = 1, 6	165 mm [6.50]	83 mm [3.25]	141 mm [5.56]	59 mm [2.33]
E = 2, 4, 5	121 mm [4.75]	152 mm [6.00]	79 mm [3.12]	118 mm [4.63]
E = 3, 8	165 mm [6.50]	121 mm [4.75]	136 mm [5.37]	92 mm [3.62]
E = 7	114 mm [4.50]	127 mm [5.00]	71 mm [2.80]	108 mm [4.25]

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