



MODEL SDC002

VIBEALARM™

- ICP® Sensor Power
- Adjustable Band-Pass Filtering
- DIN Rail Mountable
- 2 Levels of Alarm with Latching or Momentary Settings
- LCD Display of Output with LED Indicators
- BNC Provides Raw Sensor Signal

TYPICAL APPLICATIONS

- Electric motors
- Industrial fans
- Pumps
- Compressors
- Gear boxes
- Bearing housings

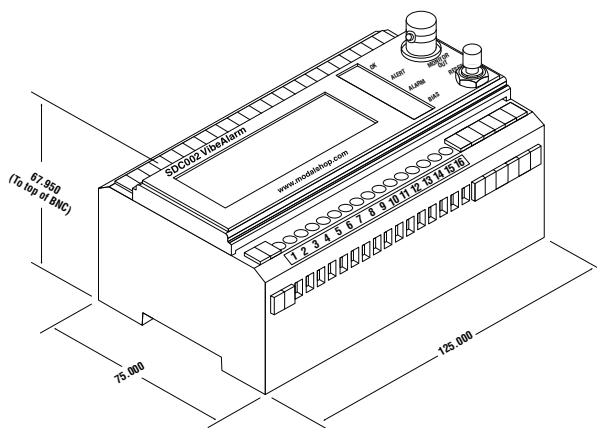
EXCESS MACHINERY VIBRATION

The VibeAlarm™ is a DIN rail mountable monitoring unit designed to warn against excessive machinery vibration levels. An accelerometer signal is conditioned, filtered, and checked against user selectable alert and alarm levels. Each alert and alarm level has an adjustable time delay to minimize false alarms and can be set for latching or momentary operation.

A 4-20 mA output proportional to the conditioned, filtered sensor signal is provided through a screw terminal. This allows direct connection to a PLC, plant control bus, SCADA, or other system without additional interfaces. In addition, the raw accelerometer output is provided for connection to an external monitoring system through a panel mounted BNC.

A dot matrix LCD displays the measured value including units. Output can be in the form of acceleration, velocity, or displacement in either English or metric units. Vibration in excess of user-specified alert and alarm levels is indicated through front panel LEDs as well as relay contact closure. The software configuration interface provided allows for quick and easy setup of the VibeAlarm™ through a standard RS-232 port.

SPECIFICATIONS	
Inputs	
Sensor Type	100 or 500 mV/g ICP® accelerometer
Excitation	4 mA
Configuration Control	Setup via RS232, configuration parameters stored in non-volatile memory
Outputs	
Integration	Selectable: None (acceleration), Single (velocity), Double (displacement)
Units of Measure	Selectable: English or Metric
Display	Dot matrix LCD, 4 digits measured value, including units
4-20 mA Current Loop	Proportional to conditioned, filtered overall level
Raw Sensor Signal	Buffered output to BNC on front panel
Indicators	Green (OK), Yellow (Alert), Red (Alarm), Green (Sensor Bias)
2 Relays	Alert and alarm closure, solid state 200 V, 100 mA
Time Delay	10 seconds to 10 minutes
Alarm Levels	User selectable
Performance	
Measurement Range	5 V Peak
Band Pass Frequency Range	from 2 Hz to 20 kHz, user-defined in configuration
Environmental	
Temperature	32 °F – 122 °F (0 °C – 50 °C)
Electrical	
Power Requirements	22 – 30 VDC, 150 mA
Mechanical	
Mounting	DIN Rail
Connections	Screw terminal
Dimensions (H x W x D)	70 x 75 x 125 mm
Weight	Approximately 250 grams
ORDERING INFORMATION	
SDC002	VibeAlarm™ with software
SDC002-KIT	VibeAlarm™ with software, sensor, serial cable
SDC002-PS24P	AC power supply for VibeAlarm™
SDC002-RS23210	Serial cable for VibeAlarm™, 10 ft



*Dimensions shown in mm

TERMINAL NUMBER	DESCRIPTION
1	24 V Positive
2	24 V Ground
3	RS-232 TXD (Brown)
4	RS-232 RXD (Red)
5	RS-232 GND (Green)
6	Remote Reset
7	Ground
8	4-20 mA Output
9	Alert Contact
10	Alert Contact
11	Ground
12	Alarm Contact
13	Alarm Contact
14	Monitor Output
15	Sensor Ground Lead
16	Sensor Signal Lead



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The Modal Shop, Inc. offers structural vibration and acoustic sensing systems and services for various applications in design and test laboratories as well as manufacturing plants. An extensive sound and vibration rental program, precision calibration systems, and both modal and vibration shakers are designed to simplify test phases. Non Destructive Testing Systems help manufacturers provide 100% quality inspection of metal components. The Modal Shop, Inc. is a subsidiary of PCB Piezotronics, Inc., and PCB® is a wholly owned subsidiary of MTS Systems Corporation.

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DS-0018 revA



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