

SI-500 SERIES MACHINE MONITOR & INTERFACE

AVAILABLE FEATURES

- 1 - 14 channels (depending on configuration)
- Dedicated digital display per channel
- Independent alarm and trip relays per channel
- latching or non-latching alarm relay
- Inputs from Spectrum's family of SI Series IEPE accelerometers, SI-42X Series 4-20ma transmitters, SI-500 conditioning modules, voltages, DC currents, thermocouple's, RTD's and more
- RMS, peak or peak-to peak engineering units
- Buffered BNC outputs for all IEPE sensors for dynamic analysis
- Housing rated IP66 Service; UL Safety Approved to UL 1310 Class II



*Spectrum SI-500 Series 8 Channel Monitor Shown
(4 x vibration inputs & 4 x temperature inputs)*

The **SI-500 Series Machine Monitors** provide 24/7 protection for critical plant equipment. They provide early warning of pending machine failure, and if the fault is left uncorrected, the monitor will provide a shutdown contact preventing catastrophic machine damage. The **SI-500 Series Monitors** can be configured for a variety of machine vibration or process measurements to meet each customer's unique requirement.

This small versatile wall mounted instrument provides real-time display of machine condition on one or more 3 ½ digit Green LED displays. As conditions change and levels exceed the system's settings, the display will change proportionally to the input change, and simultaneously as pre-set alarm and trip settings are exceeded, alarm LED's are activated. Relay contacts are also activated to provide either alarm or shutdown commands to the customer existing control logic.

Buffered BNC jacks are provided on all IEPE type sensor monitors to allow the vibration analyst to access the sensor's dynamic signal for more advanced fault analysis when needed.

SPECIFICATION

<p>INPUTS: IEPE accelerometer, velocity transducers, charge-amp sensors, thermocouples, 100 ohm RTD, voltage, current inputs & more</p> <p>DISPLAY: 3 ½ Digit LED – available per channel</p> <p>OUTPUTS: one (1) re-transmit 4-20ma (1000 ohms max.) or 0-10VDC one (1) low alarm SPDT 3A @ 240 VAC resistive relay contact one (1) high alarm SPDT 3A @ 240 VAC resistive relay contact one (1) buffered BNC signal per IEPE sensor channels only</p> <p>MOUNT: Wall mount standard, IP66 rated</p> <p>COOLING: Integral 24 VDC power fan(s) depending on housing size</p>	<p>RESET: latching relays are reset via pressing front of module buttons; latching function is user configurable</p> <p>TIME DELAY: all relays includes selectable delay: 0-1200 seconds</p> <p>POWER: 85 – 260 VAC, 60 Hz standard; 24 VDC optional</p> <p>HOUSING: IP66 polycarbonate housing with windowed front door</p> <p>SIZE : Up to 4 module housing: 300mm x 300mm x 187mm Up to 8 module housing: 300mm x 400mm x 187mm Up to 14 module housing: 400mm x 600mm x 187mm</p> <p>APPROVAL: Electrical Safety Approval (Canada)- optional</p>
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Configuration

To configure a system that will meet your exact requirements, use the following simple three (3) step process:



STEP 1 – Gather information on all inputs to be monitored including type of sensor, sensor sensitivity, desired measurement range, and alarm and trip points, and enter this information into our SI-500 Configuration Sheet (see link at <http://www.spectrum-instruments.com/products/vibration/common/vibmon.shtml>)

STEP 2 - Choose from a wide variety of ‘snap-in-place’ conditioning, alarm, display modules, and optional accessories (go to <http://www.spectrum-instruments.com/products/vibration/common/interface.shtml> for an overview of available DIN Rail modules) to create a system per your completed SI-500 Configuration Sheet

STEP 3 – submit your completed Configuration Sheet from STEP 1 along with a Bill of Material from STEP 2 to your local Authorized Spectrum Reseller, or Spectrum Instruments Ltd. for immediate review; a detailed proposal will follow for your consideration



Of course, if you need more assistance, please do not hesitate to contact us and we can work through the process together.

Factory Setup

System configuration, wiring, testing, calibration, manuals and system drawing are standard and included in the price of each system; to ensure your system is ready to go ‘out-of-the-box’, the customer must include a completed “SI-500 Configuration Sheet” with his order; a comprehensive manual is included should a customer choose to set up his own system in the field, or should the customer wish to change the factory configuration post installation.



AVAILABLE ACCESSORIES

Sensors

– SI Series accelerometers, dual function (vibration/temperature) sensors, velocity transducers, temperature sensors and more.....

Sensor mounts

– studs, adhesive mounting pads, magnetic mounting pads

Sensor cables

– water resistant, IP68 waterproof, chemical resistant, braided, and submersible

Sensor Simulator

- provides a variety of sensor signals for ‘ringing-out’ wiring systems and aids in the calibration of associated instruments

AVAILABLE SERVICES

System configuration - ensures the best solution is chosen for your application

System commissioning - ensures proper system operation and machine protection

System consultation - our machine vibration analyst performs an audit of plant machinery re protection and condition trending for improved equipment reliability

TYPICAL APPLICATIONS

Pumps Motors Fans Rolls Conveyors Chillersmore



*Optional System Accessories
external alarm lights, klaxons, custom inputs*

OTHER VIBRATION INSTRUMENTS AVAILABLE FROM SPECTRUM

- SI-500 SERIES DIN RAIL MOUNTED SIGNAL CONDITIONING MODULES
- TWO-WIRE SI-400 SERIES 4-20MA VIBRATION TRANSMITTERS
- WAM-X WIRELESS TRIAXIAL TRANSDUCER AND WAM DATA ACQUISITION SYSTEMS

Version 1.15



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