

Protecting Your Critical Rotating Machinery

V400 machine protection system is a high performance fully programmable signal measurement unit capable of monitoring 4 channels of absolute vibration, relative shaft vibration or thrust position. In addition first input is available as standard for measuring speed or for use as a phase reference. The 9*9cm panel mountable module is designed specifically for machine protection applications, offering a compact and cost effective solution with a range of measurement algorithms.

The sensor interface is programmable to accept IEPE type accelerometers / velocity transducers, proximity probes (API 670 standard compliant), and active / passive speed probes. All input signals are available via a buffered interface on front end BNC connections to offer the option of further detailed signal analysis.

Two alarm relays are available, these relays are fully programmable across the alarm criteria selected. All four input channels measured values are available via a 4-20mA interface. V400 is provided with a graphic LCD display and menu drive facility to provide immediate viewing and access to the machine parameters.

V400

Compact Machinery Protection System



Specifications:

Performance Specification	Description
Number of Inputs:	4 channel
Signal Types:	Accelerometer, Velocity Sensor, Proximity Probes or Analog Signals (mA or VDC) First Channel can be defined as speed & phase reference.
Signal Conditioner:	Amplifier/integrator to obtain velocity or displacement response by integration
Analog Outputs:	Four 4-20mA outputs
Buffered Outputs:	Two Buffered Outputs per channel (BNC and Screw Terminal)
Frequency Response:	Acceleration and Velocity and Displacement: 2 to 10,000 Hz Thrust / Position :DC
Dynamic Range:	60 db
Power:	85-264VAC, 50/60 Hz or 24VDC (1 Amp)
Accuracy:	1% Full Scale
Measurement Unit System:	User Defined (English or Metric)
Signal Detection:	RMS, Peak or Peak to Peak (User Defined)
Sensor Power:	Internal 4.5 mA Constant Current Diode for IEPE type Sensor
Sensor OK Detection:	Continuous Monitoring of Sensor Voltage
Number of Alarms/Relays	9 (4 Alerts, 4 Danger, 1 malfunction)
Trip Multiply Function:	Terminal for None , variable 10 to 90% Alarm Trip multiply
Reset Function:	Push Button /Terminal for Remote Reset if Latching Alarms Selected
Alarm Indication:	OK = Green LED, Alert = Yellow LED, Danger = Red LED
Relay Specification:	Form C, SPDT, 1 Amp 110 VAC, Latching or Non-Latching Selectable Normally Energized or Normally De-Energized (User Defined) Bypass Relay or Active Relay Selectable
Alarm Time Delay:	1 to 60 Seconds (User Defined)
Case:	Aluminum Alloy
Terminals:	Push In Type, 24 AWG min., 12 AWG max.
Display Type:	TFH Graphic LCD 128*64 Pixels
Diagnostic Specifications :	
CMS Communication:	Diagnostic : Vibsens Protocol (RS232/RS-485 for Networking)
Sample Rate:	Up to 4 KHz synchronous sampling rate (user defined in software)
Resolution:	12bit
Phase Linearity:	(0.1 Hz to 10 kHz) ±1 deg
Programming:	Software and Serial Cable Included (Windows™ Required)
HMI Communication:	HMI : Modbus (RS485/RS232)
Environmental Specifications:	
Operating Temperature:	-15 to +75°C
Storage Temperature:	-40 to +80°C
Relative Humidity:	10 - 90% Non-Condensing
Enclosure Rating:	IP55
Mechanical Specifications:	
Housing Material:	Gray Aluminum, Die-Cast
Mounting:	9*9 cm Panel Mounting
Dimensions:	90 x 90 x 200mm
Weight:	25 oz. (700g)
Certifications:	CE Approved - EN 60950-1

Applications

- Small to Medium Industrial Machines
- Fans, Pumps, Motors, Centrifuges and Turbines
- Shutdown Protection and Condition Monitoring

V400 Features and Benefits

