

GVS-4000

Machine Protection System



Features:

- Continuous Monitoring for Machine Protection
- Accepts Vibration, Temperature, Position, Speed or Analog Output Sensors
- Local Bar Graph Display with Alarm Indicators
- 3 Levels of Alarm Per Channel (OK, ALERT and DANGER)
- Four Configurable 4-20mA Recorder Outputs
- Modbus RS485 Output, Modbus over Ethernet
- Two Buffered Outputs per Channel (BNC and Terminal)
- API 670 Compliant
- 18-36VDC or 110-220VAC Powered

The **GVS-4000 Machine Monitoring System** was designed to continuously monitor essential and Balance of Plant machinery, in all industries, where the cost of larger rack-based systems cannot be justified. The GVS-4000's flexible design allows it to accept a combination of four vibration, position, temperature, speed, or analog inputs and can be used in conjunction with a PLC, DCS or SCADA system. Four dedicated BNC Buffered Outputs are located on the front cover and provide convenient access to the raw sensor signals for portable vibration analyzers. Buffered output signals are also available on screw terminals for hardwiring to online systems.

The local LCD display provides bar graphs, alarm indicators, and the overall vibration value directly on the front of the enclosure. The configuration software included with the system allows the user to program the four inputs, nine relay outputs and four recorder outputs with a laptop or PC via USB cable. The system settings can also easily be uploaded from an existing GVS-4000 in case the configuration file is misplaced.

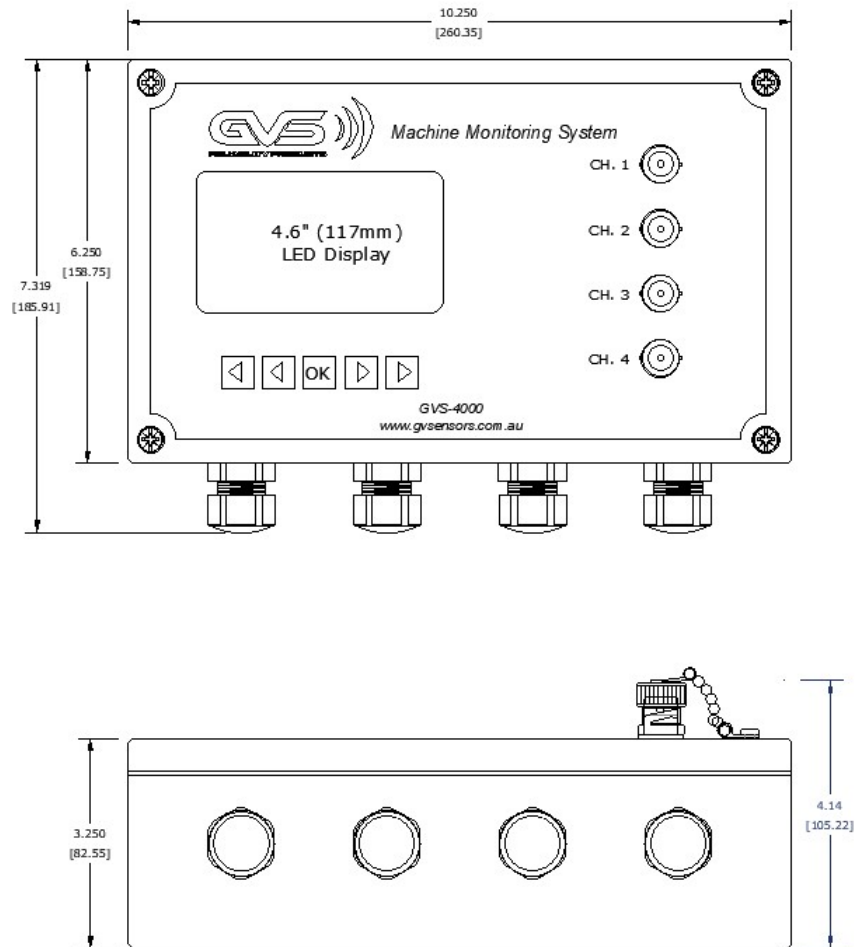
The GVS-4000 is rated IP65 and protects against dust and water ingress. Enclosures are available for additional protection.

Specifications:

Electrical Specifications:	
Number of Inputs:	Four (4)
Signal Types:	Accelerometer, Velocity Sensor, Proximity Probes or Analog Signals (mA or VDC)
Analog Outputs:	Four (4) Isolated 4-20mA Outputs
Buffered Outputs:	Two Buffered Outputs Per Channel (BNC and Screw Terminal)
Frequency Response:	Velocity: 10-1,000 Hz (ISO) or 2 to 2,000 (ISO LF) Acceleration: 2 to 20,000 Hz Displacement: 2 to 2,000 Hz Thrust/Position: DC Enveloping: Filter #2 and #3 (Jumper Selectable)
Power:	85-264VAC, 50/60 Hz or 24VDC (1 Amp)
Accuracy:	1% Full Scale
Communication:	Modbus RS485, Modbus over Ethernet
Range:	User Defined (English or Metric)
Signal Detection:	RMS, Peak or Peak to Peak (User Defined)
Sensor Power:	Internal 4.4 mA Constant Current Diode for IEPE Style Sensor +24VDC for 4-20mA Sensors

Sensor OK Detection:	Continuous Monitoring of Sensor Voltage
Number of Alarms/Relays	9 (4 Alerts, 4 Danger, 1 Common System OK)
Alarm Indication:	OK = Green LED, Alert = Yellow LED, Danger = Red LED
Relay Specification:	Form C, SPDT, 5 Amp 250 VAC, Latching or Non-Latching Selectable Normally Energized or Normally De-Energized (User Defined)
Alarm Time Delay:	1 to 10 Seconds (User Defined)
Reset Function:	Push Button
Case:	Powder Coated Aluminum, Isolated
Terminals:	Screw Type, 24 AWG min., 12 AWG max.
Programming:	Software and USB Cable Included (Windows Required)
Display Type:	Color LCD
Environmental Specifications:	
Operating Temperature:	-4 to 176°F (-20 to +80°C)
Storage Temperature:	-40 to 185°F (-40 to +85°C)
Relative Humidity:	10 - 95% Non-Condensing
Enclosure Rating:	IP65
Mechanical Specifications:	
Housing Material:	Gray Aluminum, Die-Cast
Mounting:	Mounting Bolts
Dimensions:	10.24" x 6.3" x 3.55" (260 x 160 x 90mm)
Weight:	25 oz. (700g)
Certifications:	CE Approved - EN 60950-1

Dimensions:



GVS-4000 Ordering Information:

Note: Each GVS-4000 is supplied with a USB cable and CD containing the setup software.

GVS-4000	-XX	-XX	-XX	-XX	Channel Selection
					Input 1 Module Type, See Input Module Type Below
					Input 2 Module Type
					Input 3 Module Type
					Input 4 Module Type

Input Module Type

Ordering Code	Description
-AC	Acceleration, g's
-VA	Velocity, Input from Accelerometer
-VV	Velocity, Input from Velocity Sensor
-DS	Displacement, mils or mm
-TP	Thrust Position
-EV	Enveloped Acceleration
-AM	Analog Input, mA or VDC
-TM	Temperature Input (100Ohm Plat or 10mV/°C from Dual Output Accelerometer)
-XX	Empty Slot, Unused

Example Part Number:

GVS-4000-VA-EV-VA-EV

Four Channel Monitoring System
Module 1: Velocity, Accelerometer Input
Module 2: Enveloped Acceleration
Module 3: Velocity, Accelerometer Input
Module 4: Enveloped Acceleration

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