



# V-Guard II

## On-Guard® module for vibration monitoring of reciprocating and centrifugal machinery

### Key Features at a Glance

- Utilizes Windrock's "smart" transmitter for 8 channels per module of API 670 vibration monitoring
- Modular System Architecture that can be configured to meet your monitoring requirements
- Installation is simple, fast and inexpensive
- Can be mounted on the machine deck to reduce the length of cable runs
- Two communications ports
  - PLC/DCS via MODBUS
  - Dynamic data to diagnostic software
- Optional On-Guard® Diagnostic software for monitoring, trending and reporting
- On-Guard® Software available in single user and multi-user network license versions

### What's New

- Meets API 670 specifications for vibration monitoring systems
- 3 Relays - alert, danger and not OK
- Voting Logic to require from 1 to 8 channels to be in velocity alarm before the danger relay is set

### V-Guard II

The **V-Guard II** vibration module is Windrock's solution for vibration monitoring of reciprocating and centrifugal machinery. The eight (8) channel module, another member of Windrock's On-Guard® family of "smart" transmitters, has its own processor, memory, and is capable of performing alarm detection and error checking.

V-Guard II modular design allows for use as a stand-alone vibration monitoring device or as part of a comprehensive On-Guard® system, monitoring both unit performance and mechanical condition.

One of the truly unique features of the V-Guard II module is the ability to monitor true peak vibration and impacting in real time, continuously monitoring velocity (in/s peak), acceleration (g's peak) and bias voltage on each channel every 1 millisecond.

It compares upcoming inputs against programmable limits and communicates via RS485 the values and alarm conditions back to user's PC. The V-Guard II has a built-in RS485 MODBUS port so that your PLC can get the current vibration and impact values.



A diagnostic workstation running On-Guard® software provides a wide variety of reports and graphs, including machinery alarms, system alarms, multi-parameter trends, multi-parameter overlays, statistical histograms and X-Y correlations.

On centrifugal machinery applications, having the capability to monitor both velocity and acceleration levels can be extremely useful. This allows the user to set up alarm levels for both running speed components in velocity (in/sec) and the higher order frequencies associated with blade passing, gear mesh, and/or rolling element bearing frequencies in acceleration (peak g's).

### Data Acquisition

The V-Guard II board accepts inputs from up to eight (8) accelerometers plus one magnetic pickup for speed and phase reference. Each of the eight accelerometer input channels is monitored for both peak acceleration (0-peak, g's) and peak velocity (0-peak, in/sec). Individual alarm set points can be established for both excessive acceleration and velocity. This capability is particularly useful for both centrifugal machinery and reciprocating engines and compressors.

*Modular design allows mounting on or near each machine's frame and is connected with one small multi-wire cable, reducing installation costs.*

### Questions? Contact us today:

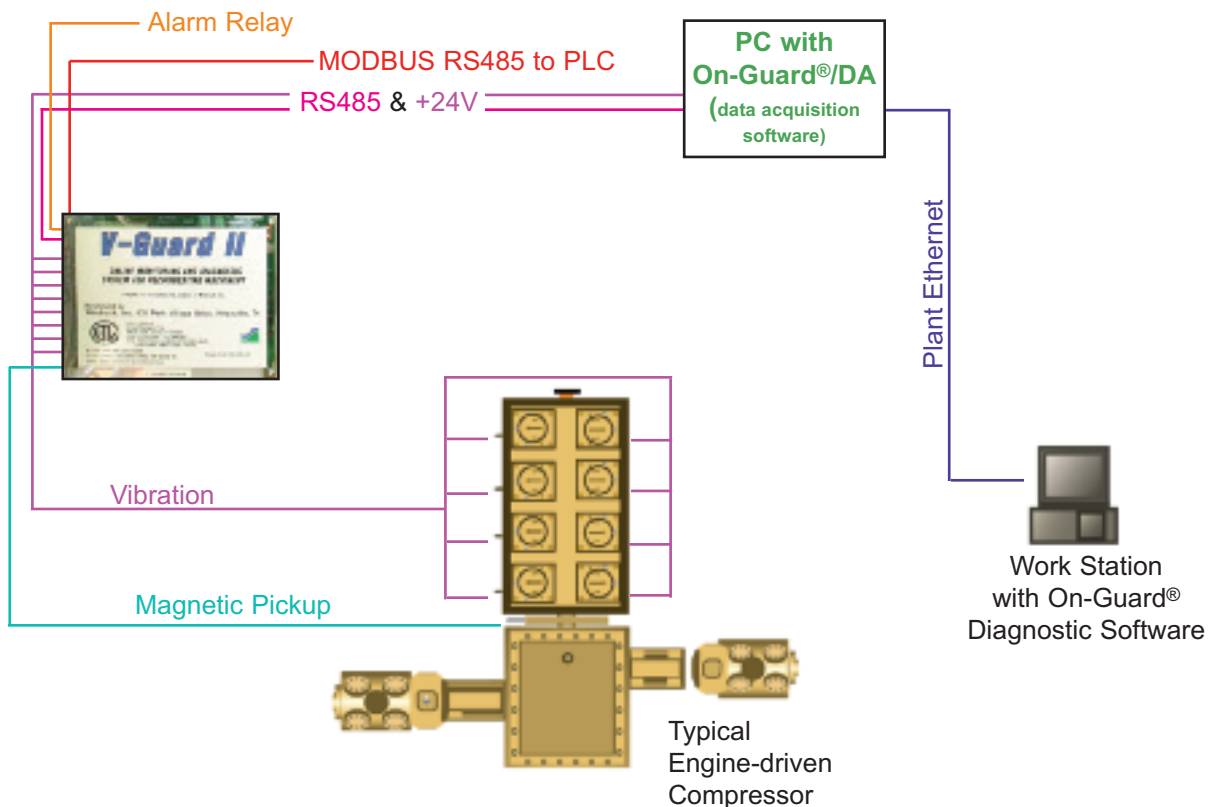
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## Specifications

Size:	8 inches high x 10 inches wide x 2 inches deep
Weight:	Less than 3 pounds
Hazardous Area Ratings:	Suitable for Class I, Div 2, Groups A, B, C, D areas Sensors rated for Class I, Div 1, Groups A, B, C, D areas Built-in IS barriers so all sensor inputs may extend into a Class I, Div 1 area
Inputs:	8 accelerometer, 100 mV/g, ICP (constant current powered) Reset - resets danger relay if latching action is checked Danger Defeat - danger relay will not trip if this input is shorted Magnetic Pickup - standard variable reluctance passive magnetic pickup
Outputs:	PLC / DCS Interface - standard integer-based modbus RS-485, RTU Alarm Relay - Hermetically sealed, N.C. output logic Alert Relay - Hermetically sealed, N.C. output logic Not OK Relay - Hermetically sealed, N.C. output logic
Power:	24 VDC, 250 mA, 18 - 28 VDC
Environmental Limits:	-25 degrees F to +150 degrees (operating); -40 degrees F to +185 degrees (storage) up to 95% humidity (non-condensing)



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