■ Specifications

Model	VM-15K	VM-15U	VM-15B	VM-16
Measurement item	Displacement Vibration	Velocity Vibration	Acceleration Vibration	Displacement Vibration, Velocity Vibration Acceleration Vibration, Thrust Position Temperature
Number of channels	4 ch			Max. 12 ch
Measurement Range	100 to 300 μm pk-pk or 5 to 10 mils pk-pk	When Displacement Range : 100 to 300 μm pk-pk or 5 to 10 mils pk-pk When Velocity Range : 25 to 50 mm/s pk or 1 to 2 in/s	When Velocity Range : 25 to 50 mm/s pk or 1 to 2 in/s When Acceleration Range : 20 to 50 m/s^2 pk or 2 to 5 G pk	Displacement Vibration : 100 to 500 μm pk-pk or 5 to 10 mils pk-pk Velocity Vibration : 25 to 50 mm/s pk or 1 to 2 in/s Acceleration Vibration : 20 to 50 m/s^2 pk or 2 to 5 G pk Thrust position : -1 to 0 to +1 mm or -40 to 0 to +40 mils
Input transducer	Displacement Transducer	Velocity Transducer	Acceleration Transducer	Displacement Transducer Velocity Transducer Acceleration Transducer J,K,T type or RTD type
Frequency response	5 Hz to 4 kHz (-3dB) 2-pole band pass filter	10 Hz to 10 kHz (-3dB) 2-pole band pass filter		Disp. Vibration : 5 Hz to 4 kHz (-3dB), 2nd-Order band-pass Filter Vel. Vibration : 10 Hz to 10 kHz (-3dB),2nd-Order band-pass Filter Acc. Vibration : 10 Hz to 10 kHz (-3dB),2nd-Order band-pass Filter Thrust Position : DC to 0.5 Hz (-3dB),1st-Order low-pass Filter
Recorder output	4 to 20 mADC (Max.Load Resistance : 600Ω) or 1 to 5 VDC (Output Impedance : 250Ω)			
Monitor output	Buffered output of input signal (from BNC connector)			Input signal is output via buffer amplifier. Output Impedance : Approx. 1kΩ (Max. 0.5mA)
Alarm setting	0 to 100 % of measurement range, 1 Danger and 1 Alert setting for each channel.			**Vibration monitoring** 2 points (DANGER, ALERT), from 0 to 100 % of measurement range **Thrust position or Temperature monitoring** 4 points (H-DANGER, H-ALERT, L-ALERT, L-DANGER), from 0 to 100 % of measurement range
Alarm contact output	One each contact output for Danger, Alert and OK (OR logic of all channels)			3 each contact output for Danger, Alert and OK
Display	3-digit of 7-segment LED display			LCD display
I/O conversion accuracy	+/- 1.5% of F.S. at 100 Hz at 25 deg.C +/- 3.0% of F.S. at 100 Hz 0 to 50 deg.C			**Vibration or Thrust position:** +/- 2.0%of F.S. at 100 Hz at 25 deg.C, +/- 3.0% of F.S. at 100 Hz 0 to 50 deg.C **Temperature :** +/- 1 deg. C at 25 deg. C, +/- 2.0 deg. C at 50 deg. C
Temperature	Operating temperature : 0 to 50 deg.C (32 to 122 deg.F) / Relative humidity : 20 to 90%RH (non condensing)			
Power supply voltage	85 to 264 VAC (50/60Hz)			
Weight	Approx. 3.5 kg			Approx. 7.0 kg

Outline Drawing

VM-15 series

VM-16 series

254
190
195.5

254
330
195
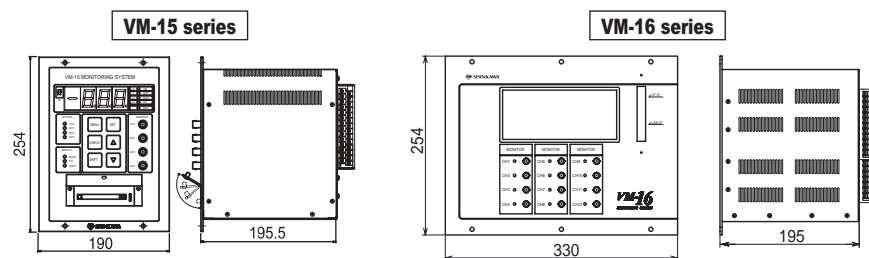
CSA Approval Non-incendive

VM-15 series VM-16*series	CSA Class I Division II Group A, B, C, D

* Pending

Dimensions : mm

Contact to

MULTIPURPOSE VIBRATION MONITOR
VM-15 & VM-16 SERIES

VM-15 SERIES

VM-16 SERIES

The Monitor Suited for General Purpose!

VM-15/VM-16 Series are vibration monitors that realize a high cost performance monitoring system for general-purpose machinery.
VM-15 series has 4 monitoring channels, and VM-16 series can be monitoring 5 kinds of parameters, and can have max. 12 channels inputs.
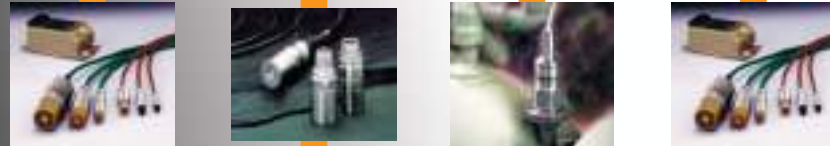(Refer to system configuration)

System Configuration

Rotating machinery
Fans, Blowers, Pumps
Cooling towers, Compressors
or Turbines

These monitors are implemented in a small and light box. They are most suitable Multi-purpose vibration monitor for rotating machinery as Fans, Blowers, Pumps, Cooling towers, Compressors and Turbines.

Displacement Vibration	Velocity Vibration	Accelerate Vibration	Thrust Position	**NEW !** Temperature	Features
100 to 300 μm pk-pk	100 to 300 μm pk-pk or 25 to 50mm/s pk	25 to 50mm/s pk or 20 to 50m/s^2 pk	-1 to 0 to +1mm	0 to 300 degree C	
VM-15K	**VM-15U**	**VM-15B**	none	none	4 channels Input / Small and Light / CF memory Option
VM-16		4 channels of signal processing circuits are available with the data input board, and up to 3 data input boards can be installed in VM-16 moniotor chassis. While the processing circuits of vibration (displacement, velocity and acceleration) and thrust position are on the same board, enabling users to configure each channel for any of these parameters with jumper selection on the board and configuration process from the front LCD touch-panel, there is a dedicated board for temperature processing separately available and all 4 channels on this board are for temperature parameters only.			5 kinds monitor / Max. 12 channels Input / Mixed Signal Inputs / Data memory with USB / CF memory

High cost performance

VM-15 and VM-16 are designed for continuous vibration monitoring of general purpose rotating machinery.
To package all necessary functions for vibration monitoring and multi-channel processing circuits into one small box, VM-15/VM-16 was able to achieve cost reduction with keeping the functions, and realizing high cost performance of the monitoring system.

Display

VM-15 series

VM-15 has a large LED digital display and alarm status LED lamps.
To indicate the measured vibration value, you can select the display mode from SCAN, FIX and AUTO with easy operation on the front panel.
The common danger or alert relay output would be activated when the alarm occurred, and you can recognize which channel is alarming with status lamps on the front panel.

Display Mode
SCAN : Indicated channel is changed by rotation every 5 seconds.
FIX : Selected channel is indicated.
AUTO : Highest value channel is indicated.
Status Lamps
🟢 OK 🟢 Not-OK (blinking) 🔴 Alert (blinking) 🔴 Danger

VM-16 series

VM-16 has a backlight color LCD display to indicate all information such as measured value, trend data, alarm status, alarm set value and channel set configuration. The indication is not only digital but also bar graphs, different color with alarm status and virtual lamps.
The LCD display is also a touch panel, and you can select the display mode from many choices with easy operation on the touch panel.

Easy access

You can change the display by operating the membrane keypad on the front panel of the VM-15, and the touch panel of the LCD display on the front panel of the VM-16 monitor.

CF memory

VM-15* / VM-16 can store trend data with a removable memory card (CompactFlash) and can allow you to store and manage the data with your computer.
* Option

CompactFlash™ Memory Card Option
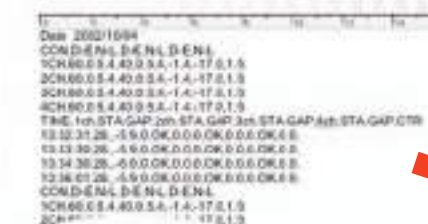
Raw text data

Can be converted to Microsoft Excel data

Approval

VM-15 has CSA Class I Division II Group A, B, C, D (non-incendive).
(Pending on VM-16)

Multi-purpose Vibration Monitor