

POCKETABLE VIBRATION METER VM-63C



CE



# VM-63C

POCKETABLE VIBRATION METER



# Simple & Smart Excellent Long-Term Reliability

The VM-63C is a highly compact vibration meter designed mainly for maintenance and inspection of industrial machinery, with particular emphasis on rotational machinery. The integrated accelerometer and digital display eliminate any need for cables, making on-site measurements in the field easy and quick. The unit can be held in one hand and operated with a single button, combining superb convenience with complete reliability and dependability.



## VM-63C

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# Accelerometer attachments

The vibration detector of the VM-63C can be used either without an attachment or with one of two types of attachments (S and L) to meet different measurement requirements.



Supplied (mounted when shipped)



No attachment



Option

## Attachment S PV58008

Provides good response and reproducibility over a wide vibration frequency range. Unless there are special requirements, the unit should be used in this condition.

## No attachment

Best suited for measuring vibration characteristics in the high range (10 Hz to 15 kHz). Only for cases where the tip can be brought into planar contact with the measuring object.

## Attachment L VP-53Y

Suitable for measurement in cases where access space to the measurement object is limited.

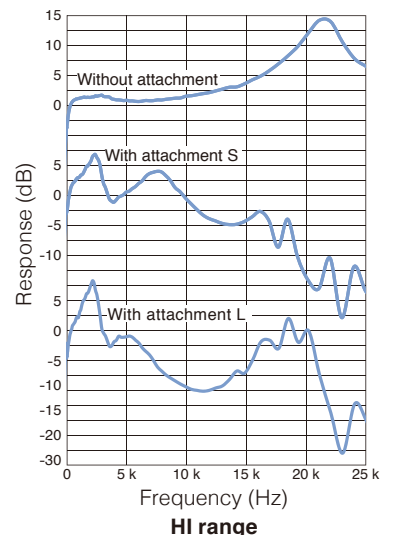
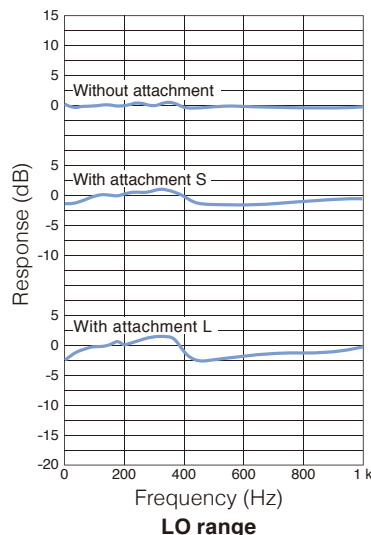


Actual size

## Features

- Simply by holding the unit against the target object, measurement over a wide range of vibration frequencies is possible.
- LCD readout shows either acceleration ( $m/s^2$  Peak), velocity ( $mm/s$  RMS), or displacement ( $mm$  P-P).
- Measurement for unbalanced conditions, misalignment (low vibration frequency range) or bearing vibrations (high vibration frequency range) is also possible.
- Wide-range design eliminates the need for frequent measurement range switching.
- A power switch is not needed. Pressing the MEASURE button turns the unit on, and power shuts down automatically after a period of inactivity.
- Support for use of rechargeable batteries reduces environmental impact. (Alkaline batteries provide about 50 hours of continuous use)

## Typical characteristics for acceleration measurement



## Specifications

Applicable standards	Chinese RoHS, CE marking	
Type	Piezoelectric accelerometer (shear type)	
Measurement range		
Acceleration	0.1 to 199.9 m/s <sup>2</sup> EQ PEAK (RMS x $\sqrt{2}$ )	
Velocity	0.1 to 199.9 mm/s RMS	
Displacement	0.001 to 1.999 mm EQ P-P (RMS x $2\sqrt{2}$ )	
Measurement accuracy (referenced to 80 Hz)	Between -10 °C and +50 °C	Outside of temperature range at left
Acceleration	±5 % ±2 digits	±8 % ±2 digits
Velocity	±5 % ±2 digits	±8 % ±2 digits
Displacement	±10 % ±2 digits	±15 % ±2 digits
Vibration frequency range		
Acceleration	10 Hz to 1 kHz (LO) 1 kHz to 15 kHz (HI)	
Velocity	10 Hz to 1 kHz	
Displacement	10 Hz to 1 kHz	
Display	Display value is held when MEASURE button is released	
Measurement value display	3 1/2 digits, digital (LCD)	
Display update rate	Approx. 1 s	
Signal output	Earphone (VP-37) can be connected	
Output impedance	Approx. 170 Ω	
Load impedance	Approx. 10 kΩ or higher	
AC output	Approx. ±2 V PEAK	
Power supply	IEC R6 (size AA) batteries (alkaline / manganese or nickel-hydrate rechargeable batteries) x 2	
Current consumption	Approx. 35 mA	
Battery life	About 50 h continuous use (at 25 °C, with alkaline batteries)	
Ambient conditions for operation	-20 °C to +60 °C, 90 % RH or less (no condensation)	
Dimensions and weight	Approx. 178 (H) x 64 (W) x 27 (D) mm, approx. 200 g (incl. batteries)	
Supplied accessories	IEC R6 (size AA) alkaline batteries x 2, silicone rubber case x 1, Attachment S x 1	

## Optional accessories

Name	Model
Earphone	VP-37
Attachment L	VP-53Y

## Supplied accessories



Silicone rubber case  
Case mounted

## Optional accessories



Earphone VP-37

**Special model for Chinese market**

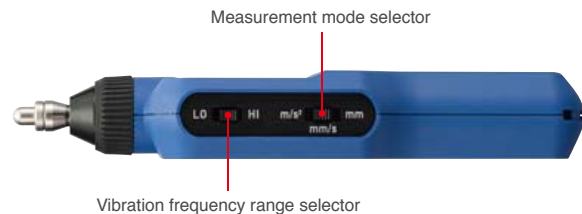
Silicone rubber case  
Case mounted

Inquiries: Overseas Sales Department for Measuring Equipment

## Operation

### ■ Measurement Preparations

1. Insert two IEC R6 (size AA) batteries into the battery compartment.
2. Use the acceleration/velocity/displacement selector to select the measurement mode. If acceleration measurement (m/s<sup>2</sup>) has been selected, use the low-range/high-range selector to set the vibration frequency range to LO (Low range: 10 Hz to 1 kHz) or HI (High range: 1 kHz to 15 kHz).



### ■ Measurement Procedure

1. Press the MEASURE button to turn the unit on and hold the vibration detector against the measurement object. Use a pressure of about 500 g to 1 kg.
2. While the MEASURE button is being pressed, the vibration value is shown on the display.
3. Releasing the MEASURE button causes the vibration value at that point to be held on the display for easy reading.
4. Pressing and holding the MEASURE button again causes measurement to be resumed, allowing repeated measurement.
5. If no other operation is performed for 60 seconds, power will automatically be turned off.



### ■ Other functions

#### Battery status indication

When the battery symbol on the display flashes, the batteries need to be replaced.

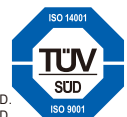


#### Signal output connector

Full scale is equivalent to 2 V (peak)  
Earphone (VP-37, option) can be connected here.



RIION Co., Ltd. is recognized by the JCSS which uses ISO/IEC 17025 (JIS Q 17025) as an accreditation standard and bases its accreditation scheme on ISO/IEC 17011. JCSS is operated by the accreditation body (IA Japan) which is a signatory to the Asia Pacific Laboratory Accreditation Cooperation (APLAC) as well as the International Laboratory Accreditation Cooperation (ILAC). The Quality & Environmental Management system Center of RIION Co., Ltd. is an international MRA compliant JCSS operator with the accreditation number JCSS 0197.



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