POCKETABLE VIBRATION METER VM-63C

vm-63c
POCKETABLE VIBRATION METER

Riovibro
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.
Accelometer 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.

### 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.

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**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/s² 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**

![Typical characteristics graph](image)
Specifications

<table>
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<tr>
<th>Applicable standards</th>
<th>Chinese RoHS, CE marking</th>
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</thead>
<tbody>
<tr>
<td>Type</td>
<td>Piezoelectric accelerometer (shear type)</td>
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**Measurement range**

- Acceleration: 0.1 to 199.9 m/s² EQ PEAK (RMS x √2)
- Velocity: 0.1 to 199.9 mm/s RMS
- Displacement: 0.001 to 1.999 mm EQ P-P (RMS x √2)

**Measurement accuracy (80 Hz)**

- -10 °C and +50 °C range at left
- Acceleration: ±5% ±2 digits
- Velocity: ±5% ±2 digits
- Displacement: ±10% ±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**

- 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 (±5 % ±2 digits)

**Power supply**

- IEC R6 (size AA) batteries (alkaline / manganese or nickel-hydride 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**

- Between -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**

<table>
<thead>
<tr>
<th>Name</th>
<th>Model</th>
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<tbody>
<tr>
<td>Earphone</td>
<td>VP-37</td>
</tr>
<tr>
<td>Attachment L</td>
<td>VP-53Y</td>
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</tbody>
</table>

**Special model for Chinese market**

- Silicone rubber case Case mounted
- Earphone VP-37

**Inquiries:** Overseas Sales Department for Measuring Equipment

**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/s²) 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.
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.**