

## Standard composition



Main unit  
VM-4431



Accelerometer  
VP-100 (with 1.5m cable)



Magnet  
HS-AM001



Probe  
TVM-4-B371



Rubber jacket  
MDR-IM1913-009



USB cable  
TB-AC10NBK



Output cable  
TVE-4-8100B



AA battery  
LR6XJ/2S



Instruction manual  
TVE-6-4168



Carrying case  
TEKNO 2007S

## Optional Accessories



AC adapter  
UBX305-0510



Short probe  
TVM-4-B372



Wall hanging magnet  
A16

## Specification

Item	Specification
Frequency range	Acceleration 5 to 10 kHz
	Velocity 10 to 1000 Hz
	Displacement 10 to 1000 Hz
Measurement mode	Acceleration RMS, EQ PEAK
	Velocity RMS, EQ PEAK
	Displacement EQ PEAK, EQ P-P, RMS
	Envelope function
Judgment function	ISO Vibration severity judgment
Internal memory	Flash memory 16 GB
Display	TFT color LCD
Notification	Battery level, memory level, Vibration value, clock
Output interfaces	Φ3.5 mini-jack (vibration waveform output)/USB Type-C (date transfer)
Power supply	AA 2 batteries, USB bus power
Dimension	130 (H) x 67 (W) x 28 (D) mm
Weight	Approx. 230 g (Including batteries)
Ambient operating conditions	-10 to +50°C 90%RH or less
Certification	CE mark(EMC directive)

## IMV CORPORATION

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\*The specifications and design are subject to change without notice.



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Personnel General Affairs Department



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Osaka site

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**Simple & Easy!**

## Portable Vibrometer with ISO standard analysis function VM-4431

Carry in  
one hand  
(Smartphone-size)

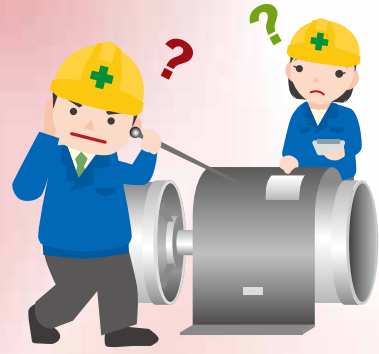


The easy analysis function has been equipped.

The criteria is based on "ISO standard 10816-3: 2009"  
describes the absolute value judgment by velocity rms.

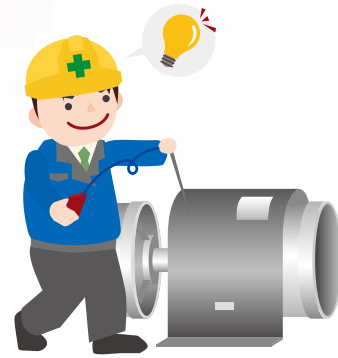
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If there is no vibrometer,



As a common way to know the state of the rotating machines, listening and palpation methods are well-known. However, these are been subjected by the feeling of each individual, and result in the different analysis consequences.

If there is vibrometer,



This vibrometer is capable of diagnosing machines by the "criterion". Anyone can produce the same result. No need to rely on the individual's ability anymore.

### What is "Vibration severity measurement instrument on the requirements 10816-3: 2009" ?

#### ISO vibration severity

This standard is widely used for analysis of rotational machinery. The current ISO standard 10816-3: 009 describes the absolute value judgment by velocity rms.

#### ISO 10816-3:2009 Vibration Standard Evaluation

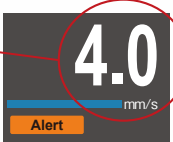
Velocity severity (mm/s RMS)	Group 2		Group 1	
	Rigid	Flexible	Rigid	Flexible
0.71	A	A	A	
1.4	B	A	A	A
2.3	B	B	B	
2.8	C	B	B	
3.5	C	C	C	B
4.5	D	C	C	B
7.1	D	D	D	C
11.0	D	D	D	D

A: good B: Satisfactory C: Unsatisfactory (alert) D: Unacceptable (danger)

**Objective machinery is classified into two major groups.**

**Group 1**  
Large machinery  
Output: 300 kW to 50 MW, Shaft height: >315 mm

**Group 2**  
Medium machinery  
Output: 15 kW to 300 kW, Shaft height: 160 mm to 315 mm



e.g. Group 2, Foundation "Rigid"  
In this case, the measuring value is 4.0, means the state of the machine is "warningid"

This vibration meter has a built-in analysis function. All you need is pushing the button and then the analysis result will be shown on the display.

### What can we know?

#### Acceleration

Bearing scratches, noise, gear abnormalities, cavitation, etc.

#### Velocity

Unbalance, misalignment, coupling failure, the slide bearing failure, foundation failure, impeller vibration, etc.

#### Displacement

Surging, water hammer, ground vibration, pulsation of the pipe

### Simple and Easy

Compact!

Carry in one hand (Smartphone-size)



Simple!

Need only 3 steps to measure



Easy!

Straightforward



### Features

#### 1 Big screen

Equipped with a large-screen TFT color LCD 2.8 inches.

#### 2 Equipped with the earphone jack

Φ3.5 mm jack is able you to auscultate machines like stethoscopes.

#### 3 Magnet fixing

The rear magnet helps you measuring. You will be able to use your both hands during measuring. \*Optional Accessories



#### 4 ISO evaluation criteria

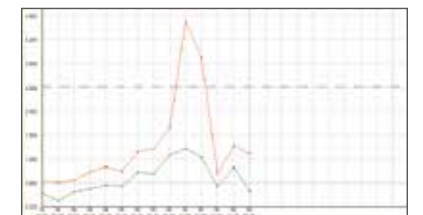
All you need is pushing the button and then the analysis result will be shown on the display.

#### 5 Accessibility

Big button helps you pushing even when you are wearing groves.

#### 7 Data viewer station

We offers a free software that is designed to manage stored data. It is available in our website.



image

#### 6 Save function

Built-in memory of 16 GB inside. Measurement data can be stored for up to 10,000 points maximum.



### Application example



Motor



Machine tool



Pump



Compressor