

Specification

Model	SmartVibro VM-4424S	SmartVibro VM-4424H	SmartVibro VM-3024S	SmartVibro VM-3024H	SmartVibro VM-7024H
Usable 3 kinds pickups	Piezoelectric Type		Electro-dynamic Type		Piezo-resistive Type
Type	Standard	High-end	Standard	High-end	High-end
Frequency range	5Hz ~ 10kHz (acceleration) 10Hz ~ 1kHz (velocity) 10Hz ~ 150Hz (displacement) 1kHz ~ 10kHz (bearing) 3Hz ~ 1kHz (H function)		10Hz ~ 1kHz (acceleration, velocity, displacement)		0.3Hz ~ 100Hz (acceleration) 3Hz ~ 100Hz (velocity, displacement)
Full scale	acceleration, velocity, displacement: 6 range, automatic switching bearing : 6 range, automatic switching H function : 6 range, automatic switching		acceleration : 6 range, automatic switching velocity : 6 range, automatic switching displacement : 6 range, automatic switching		acceleration : 6 range, automatic switching acceleration : 6 range, automatic switching acceleration : 6 range, automatic switching
Max. mesurable range	acceleration, H function: 300m/s ² (RMS, EQP, PEAK) velocity: 1000mm/s (RMS, EQP, PEAK) displacement: 10mm (p-p)		acceleration: 100m/s ² (RMS, EQP, PEAK) velocity: 200mm/s (RMS, EQP, PEAK) displacement: 1mm (p-p)		acceleration: 20m/s ² (RMS, EQP, PEAK) velocity: 100mm/s (RMS, EQP, PEAK) displacement: 10mm (p-p)
Sampling frequency	51,200Hz		20,480Hz		4,096Hz
Indication	PEAK : acceleration, velocity, displacement EQP : acceleration, velocity, displacement RMS : acceleration, velocity		PEAK : acceleration, velocity, displacement EQP : acceleration, velocity, displacement RMS : acceleration, velocity		PEAK : acceleration, velocity, displacement EQP : acceleration, velocity, displacement RMS : acceleration, velocity
Accuracy	Frequency response Sensitivity error Range changeover error Linearity		Frequency response Sensitivity error Range changeover error Linearity		Frequency response Sensitivity error Range changeover error Linearity
Output	AC OUT : 0 ~ ±1V (load 10kΩ or higher) DC OUT : 0 ~ +1V (load 10kΩ or higher)		AC OUT : 0 ~ ±1V (load 10kΩ or higher) DC OUT : 0 ~ +1V (load 10kΩ or higher)		AC OUT : 0 ~ ±1V (load 10kΩ or higher) DC OUT : 0 ~ +1V (load 10kΩ or higher)
Language	Japanese, English, Chinese (switching)		Japanese, English, Chinese (switching)		Japanese, English, Chinese (switching)
Power supply	battery: AA × 2pcs. (continuous approx. 20hours)		battery: AA × 2pcs. (continuous approx. 20hours)		battery: AA × 2pcs. (continuous approx. 20hours)
Size/Mass of body unit	74 (W) × 32.5 (D) × 148 (H) mm approx. 230g (including battery)		74 (W) × 32.5 (D) × 148 (H) mm approx. 230g (including battery)		74 (W) × 32.5 (D) × 148 (H) mm approx. 230g (including battery)
Size/Mass of pickup	Piezoelectric accelerometer φ 19 × 42 (L) mm 40g (pickup) φ 6 × 185 (L) mm 70g (probe)		Electrodynamic velocity pickup φ 25.8 × 50 (L) mm 140g (pickup) φ 8 × 50 (L) mm 20g (probe)		Piezo-resistive accelerometer 45 (W) × 45 (D) × 45 (H) mm 200g (pickup)
FFT analysis	—		—		Δf : 1Hz, 0.5Hz, 0.25Hz
Memory	—		—		SD Card Waveform data acquisition Saving Time : 5Sec./10Sec./25 Sec./50 Sec. Sampling Frequency : 2,048Hz
Option	- small size strong magnet MH-201R - long cable LC-4 (4m) - rubber jacket PC-3024		- small size strong magnet (for spherical surface) MH-203R - extension cable CE-3024-3 (3m) CE-3024-6 (6m) CE-3024-10 (10m) - AC adapter PS-3024-3		- magnet MB-PB - long cable CE-7000 (10m) - carrying case C-3024

*The screen contents, specs. or exteriors are subject to change without notice.

IMV CORPORATION

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Accurate and Easy Operation

SmartVibro

[VM-4424S/H, VM-3024S/H, VM-7024H]



VM-3024H

- 1 Low price
- 2 Simultaneous measurement of acceleration, velocity and displacement
- 3 FFTanalysis*
- 4 SD card data saving* (waveform data)

*Only for High-end model



IMV CORPORATION

Easy operation and simultaneous measurement of acceleration, velocity and displacement

Compact and multi-function portable vibrometer has made debut from IMV in low price!
Acceleration, velocity and displacement indicated simultaneously on LCD touch screen.
It's very useful for the measurement of turbine, power generator, blower, pump or compressor.
In addition to routine maintenance use, it can be used in shipping inspection or vibration investigation of electric appliances.

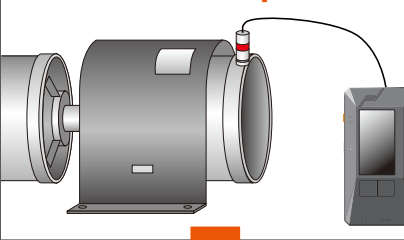
OPERATION PROCEDURE

① Power ON

Press an orange button on left side of the body



② Push a pickup against measurement spot



③ Measurement

Press a function button (L)
When you press the button again, it stops the measurement.



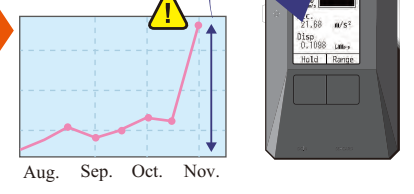
④ Confirm data

Confirm data on LCD Screen



⑤ Judgment OK/NG

Comparison with past data
(Caution when the value has significantly changed)



Usable 3 kinds pickup · · · suitable for various measurement scenes

VP-4316

Piezoelectric type for wide frequency range

(most suitable vibrometer) VM-4424S/VM-4424H

VP-3024

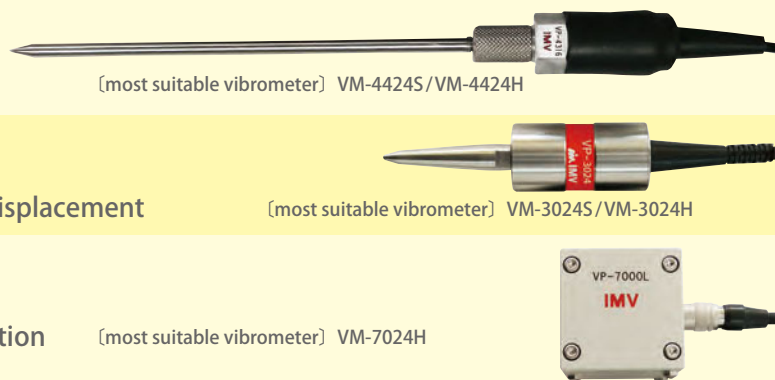
Electro-dynamic type for small amplitude displacement

(most suitable vibrometer) VM-3024S/VM-3024H

VP-7000L

Piezo-resistive type for low frequency vibration

(most suitable vibrometer) VM-7024H



Multi-Functions and Low price

Standard Model

(VM-4424S/VM-3024S)

1. Low price

High functionality and low price

2. Simultaneous measurement

Support of quick and easy measurements. It can reduce the operating time and prevent miss-measurements

3. Automatic switching (6range)

Automatic switching, no need for range setting

4. Selectable 3 languages

Japanese, English and Chinese

5. Light weight 230g (including battery)

Lighter and more compact, than conventional model

Convenient multi-functions add to the standard model

High-end Model

(VM-4424H/VM-3024H/VM-7024H)

1. FFT analysis*

For investigation of cause of vibration.
SmartVibro is possible to perform frequency analysis by the minimum condition setting.

2. SD card data saving

Can be saved into SD card as CSV format (Maximum 50 seconds*)

*VM-7024H

3. For low frequency vibration (VM-7024)

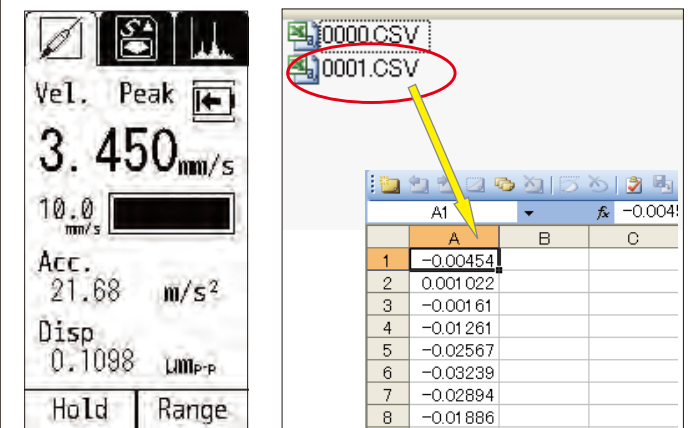
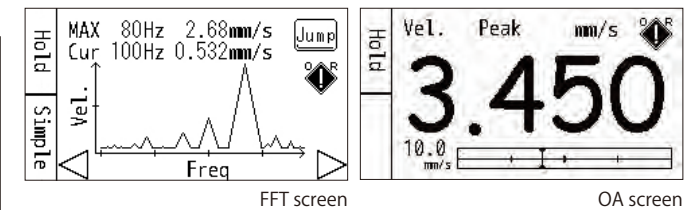
In case of measurement of low frequency under 1Hz.
(Ground vibration or small displacement of machine tool.)

*What is FFT analysis?

FFT analysis is to extracting frequency components from vibration waveform. By comparing frequency distribution, the cause investigation is possible.

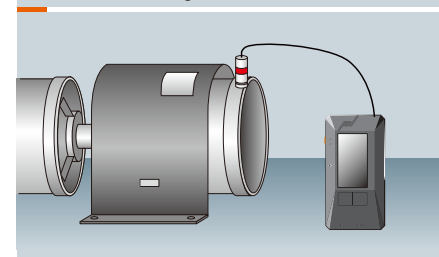
SmartVibro function table

Usable 3 kinds pickups		Piezoelectric Type		Electro-dynamic Type		Piezo-resistive Type
Model		VM-4424S	VM-4424H	VM-3024S	VM-3024H	VM-7024H
		standard	high-end	standard	high-end	high-end
usability	simultaneous measurement	○	○	○	○	○
	waveform data		○		○	○
	FFT analysis		○		○	○
object	motor, blower, pump	○	○	○	○	
	turbine			○	○	
	generator			○	○	
	mixer, centrifuge					○
	crane, bridge					○
	floor, ground					○

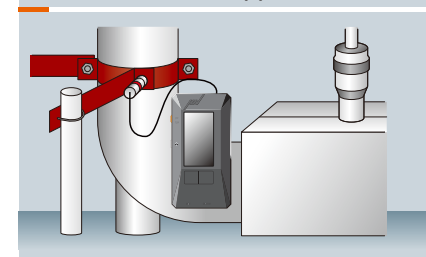


Application

Maintenance of rotating machineries as Motors, Blowers etc.



Vibration condition check of pipe



Measurements of small displacement of machine tools

