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/s² (RMS,EQP,PEAK) velocity:1000mm/s (RMS, EQP, PEAK) displacement:10mm (p-p)		acceleration:100m/s² (RMS,EQP,PEAK) velocity:200mm/s (RMS, EQP, PEAK) displacement:1mm (p-p)		acceleration:20m/s² (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	±5%（10Hz～5kHz）±30%（5Hz～10kHz） ±5%（for full scale value at 160Hz） ±2%（160Hz standard） ±1%（for full scale value at 160Hz）		±5%（20Hz～500Hz）$^{+5\%}_{-15\%}$（10Hz～1000Hz） ±5%（for full scale value at 80Hz） ±2%（80Hz standard） ±0.5%（for full scale value at 80Hz）		±5%（0.3Hz～100Hz） ±5%（for full scale value at 16Hz） ±2%（16Hz standard） ±1.5%（for full scale value at 16Hz）
Output	AC OUT：0～±1V（load10kΩ or higher） DC OUT：0～+1V（load10kΩ or higher）		AC OUT：0～±1V（load10kΩ or higher） DC OUT：0～+1V（load10kΩ or higher）		AC OUT：0～±1V（load10kΩ or higher） DC OUT：0～+1V（load10kΩ 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 φ19×42 (L) mm 40g (pickup) φ6×185 (L) mm 70g (probe)		Electrodynamic velocity pickup φ25.8×50 (L) mm 140g (pickup) φ8×50 (L) mm 20g (probe)		Piezo-resistive accelerometer 45 (W) ×45 (D) ×45 (H) mm 200g (pickup)
FFT analysis	—	Δf：25Hz, 12.5Hz, 6.25Hz	—	Δf：10Hz, 5Hz , 2.5Hz	Δf：1Hz, 0.5Hz, 0.25Hz
Memory	—	SD card waveform data acquision saving Time：0.1Sec./ 0.2 Sec./0.5 Sec./1 Sec. sampling frequency： 51,200Hz	—	SD Card waveform data acquisition saving Time：1Sec./ 2 Sec./5 Sec./10 Sec. sampling frequency： 20,480Hz	SD Card Waveform data acquisition Saving Time：5Sec./10Sec./25 Sec./50 Sec. Sampling Frequency：2,048Hz
Option	●small size strong magnet MH-201R 		●small size strong magnet (for spherical surface) MH-203R 		●magnet MB-PB 
	●long cable LC-4（4m） 		●extension cable CE-3024-3（3m） CE-3024-6（6m） CE-3024-10（10m） 		●long cable CE-7000（10m） 
	●rubber jacket PC-3024 		●AC adapter PS-3024-3 		●carrying case C-3024 

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

IMV CORPORATION

http://www.imv.co.jp/e/

●Tokyo Sales Office Kuretoishi-Bldg. F4, 2-1-5 Hamamatsu-cho, Minato-ku, Tokyo 105-0013
TEL：81-3-3436-3920 FAX：81-3-3436-3926

●Osaka Sales Office 2-6-10,Takejima, Nishiyodogawa-ku, Osaka-shi 555-0011
TEL：81-6-6471-3155 FAX：81-6-6471-3157

●Nagoya Sales Office 106-1, Neura, Ukigai-Cho, Miyoshi-Shi, Aichi 105-0013
TEL：81-561-35-5188 FAX：81-561-36-4460

JQA-1573
JQA-2988

CI/1460E

2013.11
CatNo.1311①0035MV_EN.SK

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

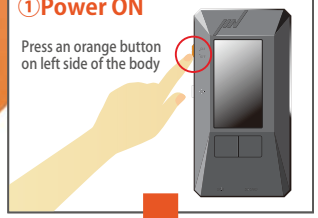
Easy operation and simultaneous measurement of acceleration, velocity and displacement

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.

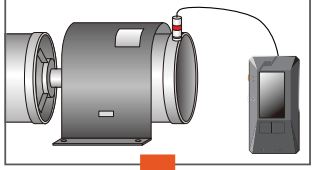
OPERATION PROCEDURE

①Power ON

Press an orange button on left side of the body

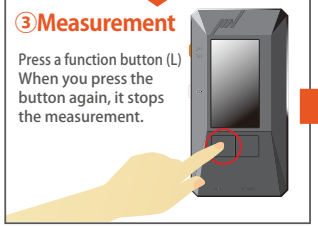


②Push a pickup against measurement spot



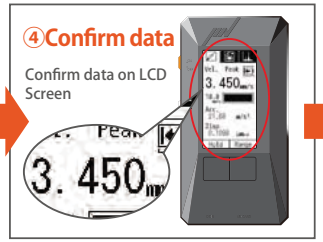
③Measurement

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



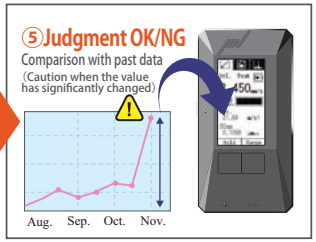
④Confirm data

Confirm data on LCD Screen



⑤Judgment 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)

STANDARD

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)

HIGH END

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

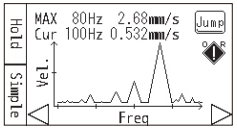
2. SD card data saving
Can be saved into SD card as CSV format (Maximum 50 seconds*)
*VM-7024H

3. For low frequency vibration (VM-7024)
In case of measurement of low frequency under 1Hz.
(Ground vibration or small displacement of machine tool.)

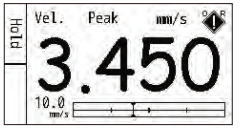
*What is FFT analysis?
FFT analysis is to extracting frequency components from vibration waveform. By comparing frequency distribution, the cause investigation is possible.

SmartVibro function table

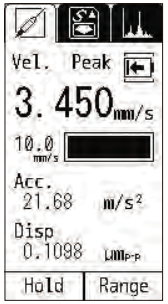
Usable 3 kinds pickups		Piezoelectric Type		Electro-dynamic Type		Piezo-resistive Type
Model		VM-4424S	VM-4424H	VM-3024S	VM-3024H	VM-7024H
		standard	high-end	standard	high-end	high-end
usability	simultaneous measurement	○	○	○	○	○
	waveform data		○		○	○
	FFT analysis		○		○	○
object	motor, blower, pump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



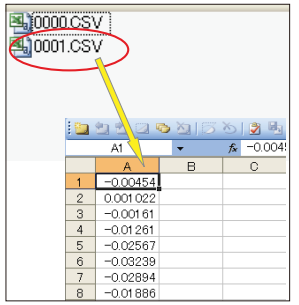
FFT screen



OA screen



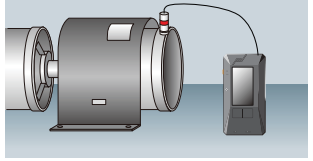
simultaneous measurement screen



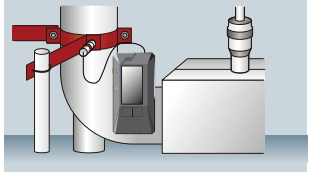
CSV import screen

Application

Maintenance of rotating machineries as Motors, Blowers etc.



Vibration condition check of pipe



Measurements of small displacement of machine tools