



# Vibration Signal Converter (VM-90D Series)

## Specifications

Item	Specification	
Signal output	Conversion output	DC4-20 mA, 1 output (response time 3 seconds) <sup>*1</sup>
	Monitor output	AC $\pm 5$ V, FS $\pm 5$ % (For quick check) <sup>*3</sup> DC 1 to 5 V, FS $\pm 5$ % (Option)
Alarm output	Alarm contact	1 step 1a contact, AC 125 V to 0.5 A, DC 30 V to 1A (resistive load)
	Alarm setting range	0 to 100% of full scale arbitrary setting ( in 1 % step) <sup>*2</sup>
	Alarm action	Operation that activates when time passes alarm delay time after vibration level exceeds alarm set level. (automatic reset) Initial alarm delay time setting 5 sec. (3 - 99 sec. : 1 sec. step)
Indication function	Main body	Red 7 segment LED (4 digit indication)
	Indicator	Vibration value : 5-step switching indication depends on the setting mode Blink for 120 % over range full scale Alarm setting value (%) : 0 to 100 for full scale <sup>*2</sup> Pickup sensitivity value (%) : 80 to 120 for standard sensitivity
Operational temperature range	-5 to + 55 °C 30 to 90 %RH (Non-condensing)	
Power supply	AC100 V $\pm 10$ % 50 / 60 Hz $\pm 2$ Hz	
Power consumption	Less than 10 VA	
Mounting	On the wall or Din rail (Din rail connector is detachable)	
Terminal board	M3.5 screw on the back panel	
Material	Plastic	
Size / Mass	50 (W) x 127 (D) x 80 (H) mm / Approx. 300 g	

\*1 Can be changed by the customized software

\*2 Setting at 0% disable a alarm function

\*3 Only for quick check of waveform



**VM-90DA (Applicable to pre-amplifier build-in type pickup)**

(VP-A51IW, VP-A4345I)

Measurement Mode	Item	Specification
Acceleration *5	Measurement range	10, 20, 50, 100, 200 (m/s <sup>2</sup> rms)
	Frequency range	10 to 4 kHz ± 1 dB, 10 to 10 kHz, +1 dB, -3 dB
Velocity *5	Measurement range	5, 10, 20, 50, 100, (mm/s rms)
	Frequency range	10 to 1 kHz ± 1 dB, -2 dB
H Function *5	Measurement range	10, 20, 50, 100, 200 (m/s <sup>2</sup> rms)
	Frequency range	DC to 1 kHz (Envelope detection of 2 kHz to 15 kHz)
H Function CF *5	Measurement range	5, 10, 20, 50, 100
	Frequency range	DC to 1 kHz (for peak / rms of H function)

**VM-90DV (Applicable to medium frequency pickup)**

(VP-90VC, VP-90VD)

Measurement mode	Item	Specification
Velocity *5	Measurement Range	5, 10, 20, 50, 100 (mm/s rms)
	Frequency Range	10 to 1 kHz ±1 dB
Displacement *5	Measurement Range	50, 100, 200, 500, 1,000 (µmp-p)
	Frequency Range	10 to 500 Hz ± 1 dB

**VM-90DVL (Applicable to low frequency pickup)**

(VP-91VC, VP-91VD, VP-92VC, VP-92VD)

Mode	Item	Specification
Velocity *5	Measurement Range	5, 10, 20, 50, 100 (mm/s rms)
	Frequency Range	5 to 500 Hz ± 1 dB
Displacement *5	Measurement Range	50, 100, 200, 500, 1,000 (µmp-p)
	Frequency Range	5 to 500 Hz ± 1 dB

\*5 Measurement mode is switchable by the switch on the front panel. Measurable up to 20 % of range over. Error is 1 % or less.