

Acc., Vel., Displacement, data logger

VIBRATION METER

Model : VB-8213

ISO-9001, CE, IEC1010



Lutron

LUTRON ELECTRONIC

The Art of Measurement

VIBRATION METER

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1. FEATURES

* Applications for industrial vibration monitoring : All industrial machinery vibrates. The level of vibration is a useful guide to machine condition. Poor balance, misalignment & looseness of the structure will cause the vibration level increase, it is a sure sign that the maintenance is needed.
* Frequency range 10 Hz - 1 kHz, sensitivity relative meet ISO 2954.
* Professional vibration meter supply with vibration sensor & magnetic base, full set.
* Metric & Imperial display unit
* Acceleration, Velocity, Displacement measurement.
* RMS, Peak value, Max. hold measurement.
* Wide frequency range.
* Data hold button to freeze the desired reading.
* Memory function to record maximum and minimum reading with recall.
* Separate vibration probe with magnetic base, easy operation.
* RS 232 computer interface.
* Data Logger.
* Optional data acquisition software.
* Optional data logger (data collection) software.
* Super large LCD display with bar graph indicator.
* Microcomputer circuit, high performance.
* Auto shut off saves battery life.
* Built-in low battery indicator.
* Heavy duty & compact housing case.
* Complete set with the hard carrying case.

2-1 General Specifications

Display	52 mm x 38 mm, LCD display. 16 mm (0.63") digit size. With bar graph indicator.	
Measurement	Velocity, Acceleration, Displacement	
Function	<i>Main</i>	RMS, Peak, Max. Hold.
	<i>Others</i>	Data hold, Max. & Min. value, Data logger.
Frequency range	10 Hz to 1 KHz * <i>Sensitivity relative during the the frequency range meet ISO 2954 Refer to table 1, page 19.</i>	
Circuit	Exclusive microcomputer circuit.	
Data hold	Freeze the desired reading.	
Peak measurement	To measure the peak value.	
Max. hold measurement	To measure and update the max. peak value.	
Memory	Maximum & Minimum value.	
Power off	Auto shut off, saves battery life, or manual off by push button.	
Sampling time	Approx. 1 second.	
Sampling Time of Data Logger	0, 1, 2, 10, 30, 60, 600, 1800, 3600 sec. * <i>0 second : Manual data logger.</i> * <i>Other sampling time beyond 0 second : Auto data logger.</i>	
Data Logger No.	500 no. max.	
Data output	RS 232 serial output, isolate.	
Operating temperature	0 to 50 °C (32 to 122 °F).	
Operating humidity	Less than 80% RH.	
Power supply	Alkaline or heavy duty type, DC 9V battery, 006P, MN1604 (PP3) or equivalent.	
Power consumption	Approx. DC 13 mA.	
Weight	Meter	230 g/0.50 LB
	Vibration sensore	38 g/0.09 LB
Dimension	Meter : 180 x 72 x 32 mm (7.1 x 2.8 x 1.3 inch).	
	Vibration sensor probe: Round 19 mm Dia. x 21 mm.	

Accessories included	Instruction manual..... 1 PC. Vibration sensor with cable..... 1 PC. Magnetic base..... 1 PC. Carrying Case..... 1 PC.
Optional accessories	* RS232 cable, UPCB-02 * USB cable, USB-01 * Data Acquisition software, SW-801-WIN * Data Logger (data collection) software, DL-2005.

2-2 Electrical Specifications

Acceleration (RMS, Peak, Max Hold)

Unit	m/s ²
Range	0.5 to 199.9 m/s ²
Resolution	0.1 m/s ²
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	50 m/s ² (160 Hz)

Unit	G @ 1 G = 9.8 m/s ²
Range	0.05 to 20.39 G
Resolution	0.01 G
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	50 m/s ² (160 Hz)

Unit	ft/s ²
Range	2 to 656
Resolution	1 ft/s ²
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	50 m/s ² (160 Hz)

Velocity (RMS, Peak, Max Hold)

Unit	mm/s
Range	0.5 to 199.9 mm/s
Resolution	0.1 mm/s
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	50 mm/s (160 Hz)

Unit	cm/s
Range	0.05 to 19.99 cm/s
Resolution	0.01 cm/s
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	50 mm/s (160 Hz)

Unit	inch/s
Range	0.02 to 7.87 inch/s
Resolution	0.01 inch/s
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	50 mm/s (160 Hz)

Displacement p-p (RMS, Max Hold)

Unit	mm
Range	1.999 mm
Resolution	0.001 mm
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	0.141 mm (160 Hz)

Unit	inch
Range	0.078 inch
Resolution	0.001 inch
Accuracy	± (5 % + 2 d) reading @ 160 Hz, 80 Hz, 23 ± 5 °C
Calibration Point	0.141 mm (160 Hz)

* Remark :
p-p = Peak to Peak