Acc./Vel./Disp., RS232, Max. hold, Peak value. Data hold

VIBRATION METER

Model : VB-8203

ISO-9001, CE, IEC1010

LUTRON ELECTRONIC

The Art of Measurement

Acceleration/Velocity/Displacement

RMS/Peak/Max. Hold, Metric & Imperial unit

VIBRATION METER

Model : VB-8203

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	*Main*	RMS, Peak, Max. Hold.
	Others	Data hold, Max. & Min. value, Data logger.
Frequency range	10 Hz to 1 KHz ** Sensitivity relative during the the frequency range meet ISO 2954 Refer to table 1, page 19.*	
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. ** 0 second : Manual data logger.* ** Other sampling time beyond 0 second : Auto data logger.*	
Data Logger No.	500 no. max.	
Data output	RS 232 serial output, isolate.	
Operating temperature	0 to 50 ℃ (32 to 122 ℉).	
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	253 g/0.55 LB
	Probe with cable and magnetic base	99 g/0,22 LB
Dimension	Meter : 200 x 68 x 30 mm (7.9 x 2.7x 1.2 inch)	
	Vibration sensor probe: Round 16 mm Dia. x 37 mm. Cable length : 2 meter.	

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 * 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 ℃*
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 ℃*
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 ℃*
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 ℃*
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 ℃*
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 ℃*
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 ℃*
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 ℃*
Calibration Point	0.141 mm (160 Hz)
** Remark :* *p-p = Peak to Peak*	