

Technical Data Logging Instrument PCE-VM 5000

Vibration Meter PCE-VM 5000 display and storage of acceleration-, speed- and expansion measurement of vibrations/ 4-channel vibration Vibration Meter indicates 4 channels of simultaneous vibration metering through remote vibration sensors

The 4-channel PCE-VM 5000 Vibration Meter is especially designed for precise measurements of vibrations. Despite the fact that the 4-channel vibration Vibration Meter is a complex and sensitive device, its hard-wearing design enables operation for many years. The PCE-VM 5000 Vibration Meter indicates on a large, lightened LCD display four channels of simultaneous vibration measurements from remote vibration sensors. The Vibration Meter measures in a frequency range of 10 Hz to 1 KHz for speed, acceleration, and expansion. The captured data values are saved on a SD memory card where you can choose between automatic and manual data storage. By means of the SD memory card the data can be transferred afterwards to a computer in order to analyze it in an excel-file. With the PCE-VM 5000 Vibration Meter you can choose between different measurement units: for acceleration, the unit m/s^2 , g, and ft/s^2 are able to be selected; for speed, mm/s, cm/s and inches/s can be used; and for the expansion, mm and inches can be indicated.

- Acceleration, speed, expansion
- Long-lasting
- Precise measurement
- Large, LCD display with background lights
- Different measurement units
- Data storage on SD card
- Frequency range 10 Hz ... 1 KHz
- Evaluation of data at computer

Technical Specifications

Display	82 mm x 61 mm ("), LCD display with background lights
Number of channels	4 input channels
Measuring types	speed, acceleration, expansion

Units	acceleration: m/s ² , g, ft/s ² speed: mm/s, cm/s, inches/s expansion: mm, inches
Frequency ranges	10 Hz ... 1 KHz
Peak Value Hold	acceleration, speed: measures/ updates the peak-value expansion: measures / updates pp value
Max. Hold	acceleration, speed: measures/ updates the max value expansion: measures / updates max. pp value
Max. Hold-Reset	keypress activation
Zero-function	keypress activation for acceleration (rms) measurement
Datalogger scan rate	automatic: 1 ... 3600 seconds manual: by pressing key
Memory Card	SD memory card (1 ... 16 GB)
Data Hold function	holds indicated value
Audio output	mini-stereo plug, max. voltage: 2 V output resistance: 100 Ohm
Operation temperature	0 ... +50 °C
Operation humidity	85 % R.H. max.
Power Supply	8 x 1.5 V AA batteries or 9 V AC adapter
Power Consumption	NiMH rechargeable battery 3 x 2700 mAh
Operation- / Charging time	standard operation: approx. 12 mA dc without background lights and switched off Vibration Meter: approx. 35 mA dc
Weight	meter: 515 g / 1.1 lbs sensor with cable and magnet foot: 99 g / 0.2 lbs
Dimensions	main device: 203 mm x 76 mm x 38 mm 8.0 in x 3.0 in x 1.5 in sensor: 16 mm x 37 mm caliber 0.6 in x 1.5 in cable length: 1.2 m / 3.9 ft

Electrical Specifications

Function	Unit	Range	Accuracy
Acceleration	m/s ²	0.5 ... 199.9 m/s ²	± (5 % rdg + 5 d)
	g	0.05 ... 20.39 G	@ 80 und 160 Hz
	ft/s ²	2 ... 656 ft/s ²	
	calibration point: 50 m/s ² (160 Hz)		
Speed	mm/s	0.5 ... 199.9 mm/s	± (5 % rdg + 5 d)
	cm/s	0.05 ... 19.99 cm/s	@ 80 und 160 Hz
	inch/s	0.02 ... 7.87 inch/s	

		calibration point: 50 mm/s (160 Hz)	
Expansion	mm	1.999 mm	± (5 % rdg + 5 d)
	inch	0.078 inch	@ 80 und 160 Hz
		calibration point: 0.141 mm (160 Hz)	

Delivery Contents

1 x 4-channel PCE-VM 5000 Vibration Meter

2 x sensors with cable and magnet foot

8 x 1.5 V AA batteries

1 x instruction manual

1 x transportation case