VIBRATION METER

PCE-VM 10



- **Measurement of acceleration, velocity and displacement**
- **Frequency range: 10 Hz ... 10000 Hz**
- **2 inch LCD display**
- **Max. Measuring function**
- **Units: mm/s, inch/s, m/s², g, ft/s², mm, mil**

The vibration meter enables fast and precise measurement of acceleration, vibration displacement and vibration velocity in three directions (X, Y, Z) or for a single axis. It is used in accordance with ISO 2954 for the detection of unbalance, misalignment and mechanical faults in rotating machinery and is ideal for quality control, commissioning and predictive maintenance on site.

With a frequency range of 10 Hz to 10 kHz, it detects a wide range of vibrations, making it versatile for industrial applications. The vibration meter weighs just 163 g / 0.4 lbs and is easy to read even in difficult conditions thanks to the backlit 2-inch LCD display. In addition, the vibration meter switches off automatically after 30 minutes of inactivity to save energy.

The vibration meter has a 3-axis piezoelectric accelerometer with three mounting options: a magnetic sensor and two measuring tips (one conical and one spherical) that can be attached to the sensor. These accessories enable precise and versatile vibration measurements on various machines and surfaces. This makes the device a handy and powerful tool for industrial vibration measurements. It supports various units such as mm/s, inch/s, m/s², g, ft/s², mm and mil and has a measurement function that displays the maximum measured values.

Specification

Acceleration	
Measuring range	0,1 ... 400 m/s²
Resolution	0,1 m/s²
Accuracy	5 % v.Mw. +2 Digits
Frequency range	10 Hz ... 10 kHz
Acceleration	
Measuring range	0,3 ... 1312 ft/s²
Resolution	0,1 ft/s²
Accuracy	5 % v.Mw. +2 Digits
Acceleration	
Measuring range	0 ... 40 g
Resolution	0,1 g
Accuracy	5 % v.Mw. +2 Digits
Speed	
Measuring range	0,01 ... 400 mm/s
Resolution	0.01 mm/s
Accuracy	5 % v.Mw. +2 Digits
Frequency range	10 Hz ... 1 kHz
Speed	
Measuring range	0,004 ... 16 inch/s
Resolution	0.001 inch/s
Accuracy	5 % v.Mw. +2 Digits
Displacement	
Measuring range	0,001 ... 4 mm
Resolution	0,001 mm
Accuracy	5 % v.Mw. +2 Digits
Frequency range	10 Hz ... 1 kHz
Displacement	
Measuring range	0,04 ... 160 mil
Resolution	0,01 mil
Accuracy	5 % v.Mw. +2 Digits
Sensor	
Battery type	3-axis piezoelectric acceleration sensor
Frequency	10 ... 10000 Hz
Cable length	130 cm
Dimension	L: 3.5 cm x W: 3.5 cm x H: 2 cm

General technical data	
Outputs	AC 0 ... 2V
Measuring functions	MAX
Display type	LCD with backlight
Display size	2 Inch
Interface	RS232C
Standard(s)	ISO 2954, GB 13823.3
Automatic power-off	30 min
Menu language	English, English (GB)
Protection class (device)	IP20
(Rechargeable) battery	4 x 1,5 V AAA battery , Alkali-manganese
Capacity	1200 mAh
Operating conditions	0 ... 50 °C , 0 ... 90 % RH
Storage conditions	0 ... 50 °C , 0 ... 90 % RH
Dimensions (L x W x H)	150 x 78 x 30 mm
Weight	163 g