

Technical Accelerometer PCE-VM 40B

Accelerometer PCE-VM 40B

**triaxial acceleration meter / mobile version with NiMH battery / FFT analysis
IP 64 protection / internal memory for up to 100,000 readings / SMS alarm function**

The accelerometer PCE-VM 40B was designed for vibration and shock metering on buildings, bridges, towers and other artificial structures. The accelerometer measures vibrations in accordance to DIN 4150-3, BS 7385 and SN 640312A standards. With its internal memory for up to 100,000 readings, the accelerometer PCE-VM 40B can determine the effects of construction sites, traffic or industrial processing on buildings over a long period of time. You can choose between time-based and event-based recording, as well as between recording of short-time and long-time vibrations. It is also possible to set threshold levels which trigger an alarm signal when exceeded. With the built-in GSM module, the device can send you SMS notifications once the alarm is triggered. The accelerometer is very easy to use and can be configured for different applications in no time. The measured data can be viewed on the integrated display of the device. Here you can see the vibration speed in all 3 directions. The accelerometer has an integrated NiMH battery which makes it suited for mobile use on-site. A mains adaptor for stationary use is also included in delivery.

- triaxial acceleration meter
- in accordance with BS 7385 standard
- SMS alarm notifications via GSM
- FFT analysis
- internal memory for up to 100,000 readings
- mains adaptor included in delivery
- easy to use
- threshold function

Technical specifications

Measuring units	Peak value of vibration speed Peak value of vibration acceleration
Supported standards	DIN 4150-3; BS 7385; SN 640312A
Vibration sensor	triaxial piezo-electric acceleration sensor
Display range (peak) acceleration	0.001 ... 15 m/s ²
Display range (peak) speed	0.01 ... 2,400 mm/s at 1 Hz 0.01 ... 30 mm/s at 80 Hz (frequency-dependend)
Accuracy (reference value: 16 Hz)	±3 %, ±2 digits, 100 Hz low pass ±3 %, ±2 digits, 398 Hz low pass

Display	LCD, b&w, 128 x 64 pixel, backlight 3 peak values (x/y/z direction) or vector sum, main frequency, 50-lines FFT spectrum, battery status, date and time
Alarm	warning and alarm LEDs next to the display relay output (chargeover contact, max. 100 VDC / 2 A)
GSM modem	Quad band (850, 900, 1800, 1900 MHz) SMS notification when alarm is triggered
SMS alarm function	SMS contains x/y/z readings, frequency, date, time and device name
Additional GSM functions	phone call with headset (optional VM40-HS adaptor) SMS notifications
Memory	built-in micro-SD card max. 100,000 readings (x/y/z, frequency, date, time, device name)
Analogue digital convertor	24 bit, sigma-delta
USB interface	USB 2.0, CDC mode, via VM2x-USB cable
Battery	NiMH, 4.8 V, charging time: 10 h no battery power consumption when connected via USB (e.g. to an USB powerbank or an USB mains adaptor)
Battery service life	5 ... 15 days, depending on the temperature, duty cycle and use of GSM functions
Languages	German, English
Temperature range	-20 ... +60 °C
Protection class	IP 64
Dimensions	150 x 140 x 80 mm
Weight	2 kg

Delivery contents

1 x accelerometer PCE-VM 40B, 1 x USB cable VM2x-USB, 1 x mains adaptor VM40-CH, 1 x instruction manual