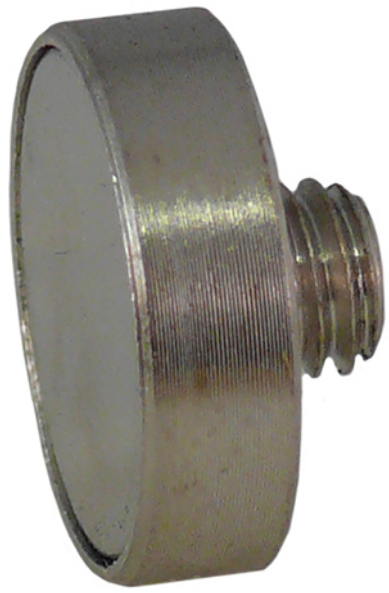
Multifunction Accelerometer PCE-VT 204







PCE-VT 204 Multifunction Accelerometer

For 3-axis vibration measurements as well as contact (mechanical) and noncontact (optical) rotation measurements

PCE-VT 204 is a multifunction handheld accelerometer device with the ability to accurately measure both rotation and vibration. An ideal tool for the testing and inspection of machine parts and components such as motors, transmissions, gears, gear boxes and wheels, this multi-purpose instrument measures revolutions per minute (RPMs) as well as three-axis vibration, i.e., velocity or speed, displacement and acceleration.

The accelerometer sensor can be set flat, equipped with a magnet or combined with the included fastening screw to make contact with a surface during vibration measurement. Internal frequency filters eliminate the effects of background noise, allowing the device to detect specific vibrations.

Note: If you wish to transfer the readings from the handheld device to a computer, the optional software package is required. See accessories for details.

- Measures vibration speed or velocity, acceleration and displacement as well as revolutions per minute (RPMs)
- Functions as a both a contact (mechanical) and a noncontact (optical) rotation tachometer
- Boasts an internal memory for storing up to 1000 readings
- Easy-to-read LCD screen
- Low-battery indicator
- RS-232 port
- Min / max and data hold
- Features a needle sensor, flat sensor, adjustable magnetic base, mechanical wheel sensor and built-in optical sensor

Subject to change

Specifications

Vibration measuring range	
Acceleration	0.5 ... 199.9 m/s², 0.05 ... 20.39 g, 2 ... 656 ft/s²
Velocity or speed	0.5 ... 199.9 mm/s, 0.05 ... 19.99 cm/s, 0.02 ... 7.87 in/s
Displacement (peak to peak / p-p)	0.005 ... 1.999 mm, 0.002 ... 0.078 in
Resolution	
Acceleration	0.1 m/s²
Velocity or speed	0.1 mm/s
Displacement (p-p)	0.001 mm
Accuracy	
Acceleration	±5%±2 digits
Velocity or speed	±5%±2 digits
Displacement (p-p)	±5%±2 digits
Frequency	
Hertz (Hz)	10 ... 1000 Hz
Kilohertz (kHz)	0.01 ... 1 kHz

Revolutions per minute (RPM) measuring range	
Optical or noncontact	10 ... 99999 RPM
Mechanical or contact	0.5 ... 19999 RPM
Velocity or speed	0.05 ... 1999 m/min, 0.2 ... 6560 ft/min
Resolution	
0.1 RPM	<1000 RPM
1 RPM	≥1000 RPM
0.01 m/min	<100 m/min
0.1 m/min	≥100 m/min
0.1 ft/min	<1000 ft/min
1 ft/min	≥1000 ft/min
Accuracy	±0.05% ±1 digit
Optical measuring distance	50 ... 1500 mm / 2 .... 59 in (depending on surface)

General properties	
Internal memory	Stores up to 1000 readings
Data output	RS-232 port
LCD	45 x 48 mm / 1.77 x 1.88 in
Power supply	4 x 1.5V AA batteries
Dimensions	188 x 76 x 47 mm / 7.4 x 3.0 x 1.9 in
Operating conditions	0 ... 50°C / 32 ... 122°F / <80% RH
Weight	400 g / < 1 lb
Enclosure	Plastic

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