



# Vibration Meter Calibrator PCE-VC20



## PCE-VC20 Vibration Meter Calibrator

### For vibration acceleration, velocity and displacement

PCE-VC20 is a vibration meter calibrator used to calibrate vibration sensors, analyzers and testers. Suitable for calibrating equipment weighing up to 600 g (1.32 lb), this vibration calibrator generates mechanical vibrations with a quartz-stabilized vibration frequency of 159.15 Hz (radian frequency 1000/s).

PCE-VC20 features load-independent vibration magnitude with an RMS of:

- 10 m/s<sup>2</sup> vibration acceleration
- 10 mm/s vibration velocity
- 10 μm vibration displacement

A control circuit and reference accelerometer inside the excitation or shaker head work in tandem to keep the vibration level constant. A display indicates the error percentage (%). The error % represents the deviation of the target value from the measured amplitude. In settled conditions, the display should come close to 0.0 % if the calibration is correct. If the error % is above 3 %, the device sounds an audible alert to indicate that the error limit is exceeded. In addition, the vibration calibrator switches off automatically in case of overload. Sensors can be connected via magnet or thread. A thread adapter is included in the delivery contents to accommodate M3, M5, M8, 1/4"-28 and UNF 10-32 threads.

The vibration calibrator has many versatile features for field and laboratory use, including a built-in rechargeable battery, battery-saving automatic power-off function, battery charge indicator and AC power adapter for charging. In addition, the supplied carrying case allows for convenient handling and safe transport.

- ▶ For vibration acceleration, velocity and displacement
- ▶ Load-independent vibration magnitude
- ▶ Display shows frequency, amplitude, error percentage (%) and date of last calibration
- ▶ Sounds an alert if error limit exceeded
- ▶ Designed for use in the laboratory as well as the field

Subject to change

# Specifications

## Vibration magnitude (RMS values ± accuracy)

Vibration acceleration	10 m/s <sup>2</sup> ± 3 % (0 ... 40 °C / 32 ... 100 °F)
Vibration velocity	10 mm/s ± 3 % (0 ... 40 °C / 32 ... 100 °F)
Vibration displacement	10 µm ± 3 % (0 ... 40 °C / 32 ... 100 °F)
Vibration frequency	159.15 Hz ± 0.05 % (-10 ... 55 °C / 14 ... 130 °F)
Radian frequency	1000/s ± 0.05 % (-10 ... 55 °C / 14 ... 130 °F)
Settling time	< 10 seconds
Level indication	Error percentage (%) display, above ± 3 % audible alert
Max. weight of test object for stated accuracy	600 g / 1.32 lb
Dynamic force of vibration exciter	10 N
Max. tightening torque of vibration exciter	2 Nm
Operating humidity range	< 90 % at 30 °C / 86 °F, non-condensing
Power supply	Built-in NiMH rechargeable battery, 7.2 V / 1.6 Ah
Max. operating hours with rechargeable battery	Approx. 5 hours at a weight of 100 g / 0.22 lb
Charging time	Approx. 4 hours
Charging status	Bar indicator
Automatic power off	10 minutes / 1 ... 30 minutes adjustable
Stray magnetic field at the vibration head	< 0.2 mT
Dimensions (L x W x H)	Approx. 100 x 100 x 120 mm / 3.9 x 3.9 x 4.7"
Weight	Approx. 2200 g / 4.9 lbs

**See user manual for complete technical specifications.**

# More information

Manual



More product info



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