Climate Meter PCE-EM 886

PCE-EM 886 is a portable handheld multifunctional digital device used to measure sound, light, humidity, temperature, AC / DC current, electrical resistance, capacitance and frequency. This multipurpose, all-in-one measuring instrument has myriad applications in a plethora of industries and environments.

As a sound level meter, the measuring device uses a built-in electric condenser microphone to measure noise in factories, schools, offices, airports and more. It can also be used to check the acoustics of studios, auditoriums and sound system installations.

As a light meter, the device uses a built-in silicon diode to measure illuminance and is fully cosine corrected for the angular incidence of light.

For temperature measurement, the device uses an external semiconductor sensor with a type K thermocouple (included in delivery contents).

Humidity measurements are made via a built-in sensor designed for evaluating indoor environmental conditions.

As an electrical multimeter, the device performs AC / DC voltage, current, continuity and diode measurements and testing.

- ▶ Large, easy-to-read LCD display with backlight
- ▶ Hold, Hz%, range and relative measurement functions
- ▶ Low battery indication icon
- ▶ Compact, portable design
- ▶ Auto-ranging electrical multimeter
- ▶ Delivery contents include an external temperature sensor with type K thermocouple and a set of electrical test leads
- ▶ Optional external infrared temperature sensor available for purchase separately (see accessories for additional details)

Subject to change

Specifications

Sound

Measurementrange	35 ...100 dB
Resolution	0.1dB
Frequency range	30 Hz... 10 kHz
Frequencyweighting	C
Time weighting	Fast
Accuracy	± 5 dBat 94 dB, 1 kHz sine wave
Microphone	Internal, electric condenser

Light

Measurementrange	4,000... 40,000 lux (40,000 lux range reading x 10)
Overratedisplay	Highest digit of "OL"
Accuracy	± 5%measurement value + 10 digits(calibrated to standard incandescent lamp at color temperature2856k)
Repeatability	±2%
Temperaturecharacteristic	± 0.1%/ °C (°F)
Sensor	Internal, silicon photodiode with filter

Humidity

Measurementrange	33 ...99% relative humidity (RH)
Resolution	1%RH
Accuracy	± 3%measurement value + 5% RH

Temperature

Measurementrange	Indoor: 0 ... 50°CTypeK: -20 ... 1300°C
Resolution	Indoorand Type K to 400°C : 0.1°CType Kto 1300°C : 1°C
Accuracy	± 3%measurement value ± 3°C

Electrical

AC / DCcurrent (auto-ranging for uA and mA)Measurementrange ResolutionAccuracy	400-uA/ 4000-uA / 40-mA / 400-mA / 10 A 0.1-uA / 1-uA / 10-uA / 100-uA / 10-mA± 1%measurement value ± 2 digits (up to 40-mA DC)± 1.2%value ± 2 digits (up to 400-mA DC / 40-mA AC)± 1.5%value ± 2 digits (up to 400-mA AC)± 2%value ± 5 digits (up to 10 A)
Resistance (auto-ranging) Measurement range Resolution Accuracy	400 Ω / 4 kΩ / 40 kΩ / 400 kΩ / 4 MΩ / 40 MΩ 0.1 Ω / 1 Ω / 10 Ω / 100 Ω / 10 kΩ / 1 MΩ ± 1.5% value ± 4 digits (up to 400 Ω) ± 1.5% value ± 2 digits (up to 400 kΩ) ± 2% value ± 2 digits (up to 4 MΩ) ± 2.5% value ± 2 digits (up to 40 MΩ)
Capacitance (auto-ranging) Measurement rangeResolutionAccuracy	50 nF / 500 nF / 5 uF / 50 uF / 100 uF10 pF/ 0.1 nF / 1 nF / 10 nF / 0.1 uF± 5%value ± 20 digits (up to 50 nF)± 3%value ± 5 digits (up to 50 uF)± 4%value ± 5 digits (up to 100 uF)

Subject to change

Frequency (auto-ranging)Measurementrange ResolutionAccuracy	5 Hz / 50 Hz / 500 Hz / 5 kHz / 50 kHz / 500 kHz / 10 MHz0.001Hz / 0.01 Hz / 0.1 Hz / 1 Hz / 10 Hz / 100 Hz / 1 kHz± 1.2%value ± 3 digits (up to 500 kHz)± 1.5%value ± 4 digits (up to 10 MHz)

General specifications

Display	LCD
Overrangeindicator	"OL"
Measurementrate	3times per second, nominal
Operatingconditions	0 ...40°C / < 70% RH
Storageconditions	-10... 60°C / < 80% RH
Power supply	1 x 9Vbattery
Meterdimensions	170 x78 x 48 mm
Weight	335g