

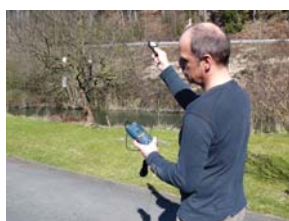
Radiation Meters

PCE-172

Industrial lux meter

The PCE-172 industrial lux meter is ideal for precise light measurements within the industrial, trade, agriculture and research sectors. You can also use it to check computer light, and measure the light in workplaces, decorations on windows and all type of lit designs. It meets international lux meter standards. The result is displayed in lux and the equivalent of 100 lux is 1 W/m² or 9.29 fc.

- Easy to use and solidly built
- Large LCD with bar graph indication
- Co-sine corrected measurement
- Min- / Max-Hold function
- Over range indicator
- ISO calibration certificate (optional)



Technical specifications

Measurement range	0 to 40.00 lux 0 to 400.0 lux 0 to 4,000 lux 0 to 40,000 lux 0 to 400,000 lux
Resolution	0.01 / 0.1 / 1 / 10 / 100 lux
Accuracy	±5 % of reading ±10 digit (<10,000 lux) ±10 % of reading ±10 digit (>10,000 lux)
Repeatability	±3 %
Refresh rate	approx. 1.5 times /sec.
Light sensor	silicon photodiode
Min Max function	yes
Overload indicator	yes
Memory	no
Memory intervals	no
Interface	no
Display	3 3/4 digit LCD
Bargraph	yes
Operating conditions	0 to +40 °C, < 80 % r.h.
Power	9 V battery
Dimensions	sensor: 115 x 60 x 50 mm device: 75 x 203 x 50 mm
Weight	280 g
Approvals	IEC- 1010- 1; EN 61010- 1 EN 50081-1; EN 50082-1 (DIN 5031 ; DIN 5032)

Contents

PCE-172 lux meter, sensor with cable, battery, carrying case and user's manual

Model No.	Description
PCE-172	Lux meter

Optional accessories

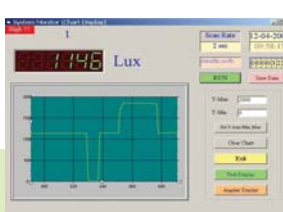
CAL-LUX	ISO Certificate
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PCE-174

Light meter with internal memory, interface and optional software

Datalogging light meter that automatically records up to 16,000 data points along with time and date. Once the data has been stored to memory, it can later be transferred to a PC with the help of the software. It reads in lux or foot-candles and has up to 5 ranges. This well made unit has a detachable probe and a large, easy to read, LCD.

- Internal memory records up to 16,000 data points
- Memory interval adjustable from 2 sec. and 9 hours
- Large LCD with bar graph indication
- Large range up to 400,000 lux
- USB interface
- Min- / Max-Hold function
- Over range indicator
- ISO calibration certificate (optional)



Technical specifications

Measurement range	0 to 400.0 lux 0 to 4,000 lux 0 to 40,000 lux 0 to 400,000 lux
Resolution	0.1 / 1 / 10 / 100 lux
Accuracy	±5 % of reading ±10 digit (<10,000 lux) ±10 % of reading ±10 digit (>10,000 lux)
Repeatability	±3 %
Refresh rate	approx. 1.5 times /sec.
Light sensor	silicon photodiode
Min Max function	yes
Overload indicator	yes
Memory	up to 16,000 values
Memory intervals	from 2 sec. and 9 hours
Interface	USB
Display	3 3/4 digit LCD
Bargraph	yes
Operating conditions	0 to +40 °C, < 80 % r.h.
Power	9 V battery
Dimensions	sensor: 115 x 60 x 50 mm device: 75 x 203 x 50 mm
Weight	280 g
Approvals	IEC- 1010- 1; EN 61010- 1 EN 50081-1; EN 50082-1 (DIN 5031 ; DIN 5032)

Contents

PCE-174 lux meter, sensor with cable, software, usb data cable, battery, carrying case and user's manual

Model No.	Description
PCE-174	Lux meter

Optional accessories

CAL-LUX	ISO Certificate
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PCE-GM 100

Gloss meter with multiple angles: 60°, 20° and 85°

The PCE-GM 100 gloss meter is ideal to measure flat surfaces and it operates according to the refractometer principle. Its rugged design and its practical dimensions provide big advantages when you measure on the spot or in the production sector such as in factories. Geometry selection allows matte, normal or hi-gloss to be measured.

- Matte, normal and hi-gloss
- 3 selectable angles: 20°, 60° and 85°
- High repeatability
- Rugged dimensions
- Battery powered
- Calibration function
- Calibration plate included in the delivery
- ISO calibration certificate (optional)



Technical specifications

Measurement range	0.0 to 200
Optical angle	20°, 60°, 85° (selectable)
Accuracy	±1.2 of gloss units
Repeatability	±0.4 of gloss units
Measurement area	11 x 54 mm
Type of light	A
Detector	silicon photo diode
Display	LCD with 10 mm high digits
Power	1.5 V battery
Battery life	60 h or 10,000 measurements
Dimensions	145 x 80 x 38 mm
Weight	330 g



Contents

Gloss meter, calibration standard, carrying case, battery and user's manual

Model No.	Description
PCE-GM 100	Gloss meter

Optional accessories

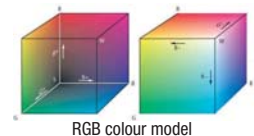
CAL-IG	ISO certificate (only for 20° and 60° angles)
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PCE-RGB 2

Spectral colour analyser with external display and interface to connect to a computer.

This colorimeter is based on the most modern microsystem technology and operates accurately according to the spectral model: a source of defined light illuminates the sample and the light reflected by the surface is measured in spectral mode. With this device, luminous surfaces, such as an LCD, can be measured relatively. The measurement results are shown on the display, but can also be transferred to a computer using the optional software package for further analysis. The applications of use for this device are extensive.

- Measurement of non-luminous surfaces, such as paper, skin, fabric, paint, etc.
- Relative measurement of luminous surfaces, such as and LCD
- Calibrate using the white standard (included)
- Relative function to compare different materials
- ISO calibration certificate (optional)



Technical specifications

Measurement geometry	circular illumination 45°/ 0° by 45°, 0° measurement according to DIN5033
Chromatic surfaces	RGB and HSL
Measurement ranges	RGB: 0 to 1023 for R, G and B HSL: 0 to 1.000 for H, S and L
Resolution	1 measurement RGB; 0.001 measurement HSL
Reproducibility	< 3 RGB, for a minimum of 10 measurements
Spectral range	400 nm to 700 nm
Light source	2 white diodes
Applications	1. non-luminous surfaces (absolut value) 2. luminous surfaces (relative measurement) Note: the colour analyser can only be used for non-fluorescent surfaces
Indications	relative and absolute values
Interface	RS-232 (via display)
Software	optional
Power	9 V battery
Dimensions (sensor)	45 x 92 x 160 mm
Dimensions (device)	205 x 76 x 37 mm
Weight	approx. 600 g
Operating conditions	0 to +50°C / maximum 80 % r.h.
Standards	DIN 5033

Contents

PCE-RGB 2, display with sensor and 1m cable, white standard, case and user's manual

Model No.	Description
PCE-RGB 2	Colour analyser with external display

Optional accessories

SOFT-LUT-B02	Software and RS-232 interface
RS232-USB	RS-232 to USB adaptor

Radiation Meters

PCE-UV34

UV light meter for radiation measurement (UVA + UVB)

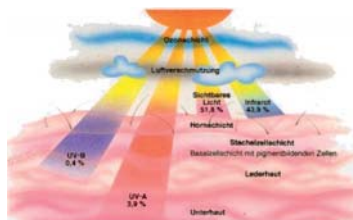
This handheld UV light meter with large LCD, measures ultraviolet radiation (UVA/UVB) in the UV spectrum from 290 nm to 390 nm. It has a wide range of applications and it is used in industry to control the danger levels of light used in soldering, in UV sterilization, in photochemical compensation, in virology laboratories or in DNA research as well as in the microbial genetics.

- Separate UV light probe
- Rugged enclosure
- Battery life indicator
- Several accessories
- ISO certificate (optional)



Technical specifications

Measurement ranges	0.000 to 1.999 mW/cm ² 1.999 to 19.99 mW/cm ²
Resolution	0.001 mW/cm ²
Accuracy	±4 %; +2 dgt.
Sensor	LCD (21.5 mm)
Indicator	4.5 digit LCD
Power	1.9 V battery (PP3)
Dimensions	device: 68 x 200 x 30 mm sensor: 68 x 60 x 27 mm
Weight	220 g



Contents

PCE-UV34 UV light meter, battery, carrying case and user's manual

Model No.	Description
PCE-UV34	UV light meter

Optional accessories

CAL-PCE-UV34 ISO certificate

PCE-UV36

Ultraviolet light meter for measuring UVC radiation

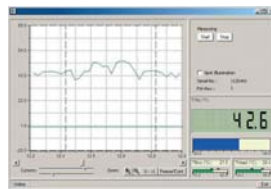
UVC meter to measure ultraviolet radiation in the UV spectrum of 254 nm. UVC radiation, with wave lengths of 200 to 300 nm, is often used to disinfect and sterilize. It is absorbed by DNA, destroys its structure and kills living cells. Micro-organisms, such as viruses and bacteria, are destroyed in seconds with the help of UVC radiation. To do this, special light is used, high and low pressure lamps, that emit radiation with a wave length of 254 nm.

- External UVC light sensor
- Wide measurement range
- Minimum, Maximum and Hold functions
- RS-232 interface
- Battery level indicator
- Automatic shut-off
- ISO calibration certificate (optional)



Technical specifications

Measurement ranges	0.1 to 199.9 µW/cm ² 0.001 to 1.999 mW/cm ² 0.01 to 19.99 mW/cm ²
Resolution	0.1 µW/cm ² / 0.001 mW/cm ² / 0.01 mW/cm ²
Precision	±2 % + 2 digits
Wave length	254 nm
Indicator	4.5 digit LCD
Operating conditions	0 to +50 °C, <80 % r.F.
Power	9 V battery
Dimensions	device: 180 x 72 x 32 mm sensor: Ø 38 x 25 mm
Weight	335 g



Software available separately

Contents

PCE-UV 36 UVC meter, case, battery and user's manual

Model No.	Description
PCE-UV36	UVC light meter

Optional accessories

SOFT-LUT-D Software with RS-232 data cable
RS232-USB RS-232 to USB adaptor
CAL-PCE-UV36 ISO calibration certificate

PCE-SPM 1

Solar radiation meter for solar installation professionals

The solar radiation meter is the optimum device for engineers, architects and any technician interested in applications for solar energy. This meter detects the intensity of solar energy, allowing for conclusions regarding energy output. Readings stored in the internal memory can be transferred to a computer, using software, for further analysis.

- Measures light intensity
- Switch to energy efficiency
- Cosine correction
- Suitable for measurements over a duration of time (data recording function)
- Measures energy output
- Minimum, maximum and average value function
- ISO calibration certificate (optional)



Technical specifications

Measurement range	0 to 2000 W/m ²
Resolution	1 W/m ²
Accuracy	±10 W/m ² or ±5 % for highest value
Spectral range	400 to 1100 nm
Memory	32,000 readings
Interface	RS-232
Display	LCD
Operating conditions	0 to +50 °C, < 80 % r.h.
Power	4 AAA batteries
Operating time (batteries)	100 hours
Dimensions	111 x 64 x 34 mm
Weight	165 g



Contents

PCE-SPM 1 solar radiation meter, software, RS-232 cable, mini tripod, batteries, carrying case and user's manual

Model No.	Description
PCE-SPM 1	Solar radiation meter

Optional accessories

RS232-USB RS-232 to USB adaptor
CAL-SPM ISO calibration certificate

PCE-EM29

Electrical field meter for three-dimensional measurements up to 3.5 GHz

The electrical field meter comes with a spherical, three-dimensional probe to detect electromagnetic radiation from 50 MHz up to 3.5 GHz. The electrical field meter is equally suitable to measure in transformers, also for the evaluation of magnetic fields that are produced by computer displays, televisions and industrial installations. It is also capable of detecting radiation of wireless systems, such as a wireless LAN, of GSM or to determine radiation from microwave ovens. With frequencies up to 3.5 GHz, it can be used effectively in high frequency ranges. Thanks to its three-dimensional probe, it makes the conversion of each axis individually.

- Three-dimensional probe (spherical)
- Function to calculate average value
- Memory for 99 readings (stored values can be shown on the display)
- Different units of measurement
- Adjustable alarm limit values
- Large display
- Frequency range up to 3.5 GHz
- Suitable for the analysis of physical work space



Technical specifications

Frequency range	50 MHz to 3.5 GHz
Sensor type	electrical field (E)
Measurement	three-dimensional, isotropic
Measurement range	38 mV/m to 11 V/m
Range selection	automatic
Response time	1 s (until 90 % of absolute value is reached)
Units	mV/m, V/m, $\mu\text{A}/\text{m}$, mA/m, $\mu\text{gW}/\text{m}^2$, mW/m ²
Resolution	0,1 mV/m; 0,1 $\mu\text{A}/\text{m}$; 0,01 $\mu\text{gW}/\text{m}^2$
Absolute error	$\pm 1,0$ dB
Accuracy	$\pm 1,0$ dB (50 MHz to 1,9 GHz) $\pm 2,4$ dB (1,9 GHz to 3,5 GHz)
Isotropic deviation	$\pm 1,0$ dB (in one frequency >50 MHz)
Maximum value over-range	4,2 W/m ² (40 V/m)
Deviation due to temperature	$\pm 1,5$ dB
Display update	every 400 ms
Limit value	adjustable
Alarm	Piepton bei Grenzwert- überschreitung
Average value	adjustable from 4 s to 15 min
Memory	99 readings (can be shown on the display)
Power	9 V battery
Dimensions	220 x 60 x 30 mm
Weight	350 g

Contents

PCE-EM29 electrical field meter, battery, case and user's manual

Model No.	Description
PCE-EM29	PCE-EM29 electrical field meter

Gamma-Scout®

Alpha, beta and gamma radiation detector with memory and software

This radiation detector has an interface and software for data transfer to a PC. Its modern technique allows you to determine low level radiation in a range of >0.01 $\mu\text{Sv}/\text{h}$, as well as high level radiation.

One push of a button is enough to start radiation monitoring. Gamma-Scout makes day and night inspections and the result is displayed in its large display. If you want, you can store the values and transmit them to the PC at your convenience. The software and USB cable are included in the delivery.

- Geiger-Müller counting tube
- Measures alpha, beta and gamma radiations
- Ray selection switch
- Memory for data storage
- GS-2 model has audio alert function
- Comes with calibration certificate



Technical specifications

Detector	reliable Geiger-Müller detector
Radiation type	alpha from 4 MeV beta from 0,2 MeV gamma from 0,02 MeV
Diaphragm aperture	alpha: without shielding beta: Al foil approx. 0.1mm, alpha protected gamma: Al shielding approx. 3 mm, shielding off alpha completely and beta to 2 MeV, weakens gamma less than 7%
Sensitivity	95.0 pulses / minute referenced to Co60 radiation
Zero rate	<10 pulses/min
Measurement range	0.01 $\mu\text{Sv}/\text{h}$ to 1000 $\mu\text{Sv}/\text{h}$
Battery	10 years, less with interface use
Power	< 10 mA
Pulses measurement	1 to 99 s, 1 to 99 min, 1 to 99 h, 24 h average in $\mu\text{Sv}/\text{h}$
Pulses storage	1 min, 10 min, 1 h, 24h, 7 days
Memory	2 KB
Interface	RS-232
Indicator	4 digit LCD
Operating conditions	-20 to +60 °C
Enclosure	impact-resistant plastic
Dimensions	161 x 72 x 30 mm
Weight	153 g
Certificates	certificate of quality for each unit
Standards	CE standard USA standard FFC15

Contents

Gamma-Scout® with software, USB cable, certificate of quality, battery and user's manual

Model No.	Description
GS-1	Gamma-Scout GS-1
GS-2	Gamma-Scout GS-2 with adjustable alarm
GS-3	Gamma-Scout GS-3 for transmission in real time

Optional accessories

GT-GS	Holster with belt clip
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PCE-G28

Magnetic field meter with 3-axial probe (0 to 2000 μT or 0 to 20,000 mGs)

The magnetic field meter with 3-axial probe determines electromagnetic radiation. This device has been specially developed to measure transformers and to evaluate magnetic fields generated by computer screens, televisions, industrial electric systems (magnetic separators, electric motor, etc.). This unit meets European standards; European Union Electromagnetic Compatibility Directive IEC 801-1 (EN 50081-1) and it also meets laboratory and measurers prescriptions; IEC 204 (IN 60204).

- 3-axial probe for magnetic field measurements
- "HOLD" function
- Units: μT or mGs
- Wide frequency range (up to 300 Hz)
- Battery powered
- Ideal for workplace applications
- Satisfies European standards
- ISO calibration certificate (optional)



Technical specifications

Measurement ranges	microTesla: 0 to 20 μT / 0 to 200 μT / 0 to 2000 μT milli Gauss: 0 to 200 mGs / 0 to 2000 mGs / 0 to 20,000 mGs
Resolution	0.01 / 0.1 / 1 μT (depending on measure. range) 0.1 mGs / 1 mGs / 10 mGs
Accuracy	± 4 %; +3 d (in range 20 μT and 200 mGs) ± 5 %; +3 d (in range 200 μT and 2000 mGs) ± 10 %; +5 d (in range 2000 μT and 20,000 mGs) these accuracies are available in the frequency: 50 - 60 Hz and < 3 V/m (RF).
Frequency	30 to 300 Hz
Indicator	LCD
Power	9V battery
Dimensions	device: 195 x 68 x 30 mm probe: 225 x 75 x 55 mm
Weight	470 g (with battery)



Contents

PCE-G28 magnetic field meter, combined 3-axial probe and 1 m cable, battery, carrying case and user's manual

Model No.	Description
PCE-G28	PCE-G28 Gaussmeter

Optional accessories

CAL-EMF	ISO certificate
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