

# Luxmeters / Footcandle Meters

## MAVOLUX 5032 C USB / MAVOLUX 5032 B USB

### Features

- Illuminance can be measured in Lux or Footcandle
- Luminance can be measured in candles per square meter ( $\text{cd}/\text{m}^2$ ) or Footlambert ( $\text{fL}$ ) with optional luminance attachments
- Wide measuring ranges
- High resolution
- Meets Standards DIN 5032-7 and CIE no. 69
- Silicon photo diode, colour corrected, i.e. its spectral responsivity is matched to the spectral photopic vision of the human eye  $V(\lambda)$ . The accuracy of that  $V(\lambda)$  matching is the main difference between the two MAVOLUX types C and B
- Cosine correction for oblique inciding light
- **USB 1.1 Interface**
- CD Rom with software for processing the values measured and regulating the meter
- Rugged instrument design, easy operation
- Ever-ready case, USB-cable included



### Applications

Digital Luxmeters and Luminance meters classified according to DIN 5032-7 and CIE 69. Wide range of applications: for light technicians, for the control of light sources, street lights, lighting of work places, public buildings, sports facilities; for quality control and quality assurance in the manufacture of lamps and light sources; for light designers and architects; for measurements in agriculture and horticulture.

Both MAVOLUX types allow measuring very high light intensities (brightest daylight, head lights) without any additional accessories. Especially the MAVOLUX 5032 B having an initial sensitivity of  $0.01 \text{ lx}$  allows measuring extremely low light intensities, such as emergency lighting. Most important: The MAVOLUX 5032B is optimally suited for certification and official inspection procedures due to its high precision acc. to Class B.

### Functions and Technical Data

#### Automatic / Manual Measuring Range Selection

Either Lux or footcandles can be selected as a measurement unit. The measuring range is matched automatically to the measurement value. The current measuring range can be locked by pressing a key, or any one of four or five (MAVOLUX 5032B USB) measuring ranges can be selected manually.

#### Function „Hold“

The current measurement value can be held at the display by pressing the data hold key.

#### Function „Mem“

Storage in memory of upto 100 values, read-out in the display or via USB port

#### Measuring rate

2 measurements per second

#### Light sensor

Silicon photo diode with  $V(\lambda)$  filter, complies with accuracy class

**MAVOLUX 5032 C USB:** DIN 5032-7 Class C

**MAVOLUX 5032 B USB:** DIN 5032-7 Class B

#### Display

LCD display size 50 mm x 25 mm  
Display/Digit Height 7 segments characters/13 mm  
3 ½ digits  
Overload Display „OL“ appears in display

#### Power Supply

Battery 1,5 V alkaline-manganese cell (IEC LR 6), size AA  
Battery Life approx. 45 hours continuous operation, When the meter is connected to a PC, power will be supplied by the PC via the USB cable  
Battery test „-I-“ symbol is automatically displayed when battery voltage drops below appr. 1V

# Digital Luxmeter MAVOLUX 5032 C USB / MAVOLUX 5032 B USB

## Battery Saver Circuit

The instrument is automatically switched off, if the measurement value remains unchanged for approximately 4 minutes, and if none of the operating elements has been activated during this time.

## Continuous operation

For using the instrument in the continuous operation mode, keep the key HOLD pushed down and then press the key ON/OFF. Pushing the key ON/OFF again will end the operation

## Electromagnetic Compatibility EMC

The MAVOLUX meet the Specifications 89/336/EEG dt. 01.01.1996

## Mechanical Design

Dimensions Basic instrument 65 x 120 x 19 mm  
Sensor 31 x 105 x 30 mm

## Cable between Instrument

and Sensor MAVOLUX 5032 C-USB: coiled cord, permanently attached  
MAVOLUX 5032 B-USB: plug-in coiled cord.

Cable Length 1,5 m; available also in 3 m, 5 m or 10 m – on special order

Weight approx. 200 g without battery

## Standard Equipment

1 Battery 1,5 V  
1 Instruction manual  
1 USB – Cable  
1 CD-ROM with software for processing the values measured and regulating the measuring instrument  
1 ever-ready case for luxmeter

## Optional Accessories

1 Luminance attachment  $\text{cd/m}^2$  incl. case  
1 Luminance attachment  $\text{fL}$  incl. case  
1 Calculator, calculating disc for exposure time/aperture combinations and additional values for photography

## Ordering Numbers

| Description   | Order No.   | Price |
|---|-------------|-------|
| MAVOLUX 5032 C USB - according to DIN 5032-7 Class C incl. ever-ready case, USB - cable, Software | M502G       |       |
| MAVOLUX 5032 B USB - according to DIN 5032-7 Class B incl. ever-ready case, USB - cable, Software | M503G       |       |
| Luminance attachment, $\text{cd/m}^2$ with case   | 5908V0120   |       |
| Luminance attachment $\text{fL}$ with case  | Z481B       |       |
| Calculator in case  | 5999V0380   |       |
| Calibration certificate for MAVOLUX 5032 C/B-USB  | H997B       |       |
| Optional: Special lengths of connecting cable: 3 or 5 or 10 meters                                | please call |       |

## Calibration Certificate – optional at additional price

Calibration reference: Scientific Standard Lamp, type Wi 41 G of the PTB, (Physikalisch Technische Bundesanstalt Braunschweig – National Standards Institute). This Calibration Certificate is necessary for all applications, where measurements, controls and inspections are required by the relevant laws and regulations.

## Technical Data MAVOLUX 5032 C USB

| Meas. Quantity           |     | Measuring Range in Lux (lx) | Meas. Range in footcandle (fc) | Resolution in Lux  | Resolution in fc |
|--------------------------|-----|-----------------------------|--------------------------------|--------------------|------------------|
| Illuminance              | I   | 0.1 ... 199.9               | 0.01 ... 19.99                 | 0.1                | 0.01             |
|                          | II  | 1 ... 1 999                 | 0.1 ... 199.9                  | 1                  | 0.1              |
|                          | III | 10 ... 19 900               | 1 ... 1 999                    | 10                 | 1                |
|                          | IV  | 100 ... 199 000             | 10 ... 19 990                  | 100                | 10               |
|                          |     | in candela/m <sup>2</sup>   | in footlambert                 | in $\text{cd/m}^2$ | in fL            |
| Luminance (with attach.) | I   | 1 ... 1 999                 | 0.1 ... 199.9                  | 1                  | 0.1              |
|                          | II  | 10 ... 19 990               | 1 ... 1 999                    | 10                 | 1                |
|                          | III | 100 ... 199 900             | 10 ... 19 990                  | 100                | 10               |
|                          | IV  | 1000 ... 1 999 000          | 100 ... 199 900                | 1000               | 100              |

## Technical Data MAVOLUX 5032 B USB

| Meas. Quantity           |     | Measuring Range in Lux (lx) | Meas. Range in footcandle (fc) | Resolution in Lux  | Resolution in fc |
|--------------------------|-----|-----------------------------|--------------------------------|--------------------|------------------|
| Illuminance              | I   | 0.01 ... 19.99              | 0.001 ... 1.999                | 0.01               | 0.001            |
|                          | II  | 0.1 ... 199.9               | 0.01 ... 19.99                 | 0.1                | 0.01             |
|                          | III | 1 ... 1 999                 | 0.1 ... 199.9                  | 1                  | 0.1              |
|                          | IV  | 10 ... 19 900               | 1 ... 1 999                    | 10                 | 1                |
|                          | V   | 100 ... 199 000             | 10 ... 19 990                  | 100                | 10               |
|                          |     | in candela/m <sup>2</sup>   | in footlambert                 | in $\text{cd/m}^2$ | in fL            |
| Luminance (with attach.) | I   | 0.1 ... 199.9               | 0.01 ... 19.99                 | 0.1                | 0.01             |
|                          | II  | 1 ... 1 999                 | 0.1 ... 199.9                  | 1                  | 0.1              |
|                          | III | 10 ... 19 999               | 1 ... 1 999                    | 10                 | 1                |
|                          | IV  | 100 ... 199 900             | 10 ... 19 990                  | 100                | 10               |
|                          | V   | 1000 ... 1 999 000          | 100 ... 199 900                | 1000               | 100              |

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