



## Lightmeter LM10

- Measurement device for assessment of light quality
- Display of illuminance
- Flicker% or ripple content and frequency in the range from 50 Hz up to 400 kHz
- Acoustic reproduction of the flicker in audible range and in ultrasound range
- Sensors for visible spectrum, infrared and ultraviolet range
- Microphone measuring head makes the noise of light sources in the ultrasound range audible
- Data logger for continuous recording and single-point measurement with 1 GByte storage capacity including software FM-Data

## LM10 - Multi-analyzer for illumination

The Lightmeter LM10 is a new innovative product for examination of light sources for their quality. Thereby, the parameters illuminance, flicker frequency and flicker component are measured. In addition, the flickers of the light source can be represented acoustically in the audible as well as in ultrasound range using a loudspeaker.

At optional voltage output, oscilloscope or spectrum can be connected for displaying brightness curve or frequency spectrum.

In addition, the Lightmeter LM10L has an integrated data logger with 1 GByte data storage and a real-time clock for precise time-/date specification.

The logger has two operating modes: The permanent mode for long-term measurements and single-point measurement for specific recordings.

The download of saved measured values and the settings of LM10L-functions on the PC are done via USB-interface. The software FM-Data is used for processing and documentation of the logged measurement values.

## Universally by different measuring probes

The Lightmeter LM10 is suitable for various measurements in lighting analysis through different measuring probes.

Thus, the probes can be set for the spectrum of visible light as well as infrared and ultraviolet range.

In addition, a ultrasound probe makes ultrasonic emission hearable.

## Acoustic reproduction

LM10 provides an option to make the flickers of light sources audible using an integrated loudspeaker. In addition to the flickers in audible frequency range, flicker frequencies of up to 400 kHz can also be transformed to audible range manually or automatically. Also an audio signal can be connected, proportional to the illuminance or the flickers.

## Multifunctional display

In high-contrast and illuminated display, there is simultaneous display of illuminance, flicker component and frequency.

In addition, the infrared and ultraviolet range can be displayed using optional measuring probes.

```
E. 13854 1x DM84
32% 48kHz 8ca
```

*Display of illuminance, flicker component and frequency.*

```
E. 5884 1x
24% 67kHz USA
```

*LM10 in audio mode for ultrasound. The currently audible flicker frequency is displayed.*

## Technical information

### Measuring range

Visible	480...660 nm
IR	790...1050 nm
UV	220...365 nm

### Resolution

1 lux

### Flicker frequency

50 Hz...400 kHz

### Display

LCD illuminated

### Display functions

Illuminance,  
Flicker%,  
Ripple content in %  
Flicker frequency in Hz

### Acoustic reproduction

Audible range	50 Hz..15 kHz
Ultrasonic	10 kHz..400 kHz

### Interface (LM10L/LS)

USB 2.0

### Voltage output

quadruple 0...2000 mV

(LM10S/LS)

### Power supply

2 x Mignon AA

### Dimensions

120 x 79 x 28 mm

### Ambient temperature

0...+40 °C

## Scope of delivery

### Lightmeter LM10

**Art.-Nr. 250**

Lightmeter LM10, measuring probe VL10 for visible range, extension cable, manual, batteries, transport case

### Lightmeter LM10S

**Art.-Nr. 251**

Lightmeter LM10S, fourfold voltage output, measuring probe VL10 for visible range, extension cable, manual, batteries, transport case

### Lightmeter LM10L

**Art.-Nr. 252**

Lightmeter LM10L with data logger, measuring probe VL10 for visible range, extension cable, USB-cable, Software-CD FM-Data, manual, batteries, transport case

### Lightmeter LM10LS

**Art.-Nr. 253**

Lightmeter LM10LS with data logger, fourfold voltage output, measuring probe VL10 for visible range, extension cable, USB-cable, Software-CD FM-Data, manual, batteries, transport case

## Accessories

### IR-probe IR10

**Art.-Nr. 263**

Probe for infrared spectrum

### UV-probe UV10

**Art.-Nr. 265**

Probe for ultraviolet spectrum

### Ultrasound probe US10

**Art.-Nr. 268**

Microphone measuring head for recording ultrasound, Frequency range 20 kHz..100 kHz

Subject to technical alterations.