

# Operating Instructions for MINILUX

- 1 = Silicon-photosensor with  $V(\lambda)$ - and cosine-correction, class B in accordance to DIN 5032, part 7. Photosensitivity  $\approx 2 \text{ nA/lx}$
- 2 = Trim-Potentiometer for zero-adjust. Put the black cap on the photosensor and then adjust the digital display with a small screwdriver to zero in every range.

The red trim-potentiometer is only for lux-calibration. Don't adjust it !!

Note: In the most sensitive range (0,000....1,999 lx), the displayed illuminance value can vary about some digits, because the photocurrent-amplifier works at his physical limit (1 mlx = 2 pA !!)

- 3 = Rotary switch for 6 Lux-ranges
- 4 = The battery-case is on the backside.
- 5 = Power on/off switch (on the left side of the device)

## Luminance-Measurements

Put the luminance-tube on the photocell as deep as possible and hold the tube in the direction in which you want to measure the luminance of a surface. Read the lux-value from the display and multiply the lux-value with the constant factor 100. This result is the luminance in  $\text{cd/m}^2$

$$\frac{L}{\frac{\text{cd}}{\text{m}^2}} = 100 \cdot \frac{E}{\text{lx}}$$

## Reflexion-Measurements of a diffuse surface

1. Measure the illuminance on the surface. 2. Measure the luminance of the surface. 3. Calculate the reflexion-value with the following formula:

$$\rho = \frac{\pi \cdot L / \frac{\text{cd}}{\text{m}^2}}{E / \text{lx}}$$

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