

Monitoring of UVC intensity Operating Power Detection – OPD

The OPD 2 evaluation unit controls service life according to the UVC rate. The level of service life is indicated by LEDs.



Technical data of the monitoring unit

Voltage supply	230 V AC (110 V AC, 24 V DC or 12 V DC possible)
Input	Input signal from SiC-UV-sensor
Reading	
Steady light (green LED)	at > 70% of starting intensity
Pre-alarm (yellow LED)	at < 70% of starting intensity
main alarm (red LED)	at < 50% of starting intensity
red LED blinking	No sensor, faulty Sensor
green LED blinking	Cable break, faulty measurement amplifier Overdriven or faulty measurement amplifier

With this option, light output is directly measured by a sensor. As soon as the service voltage is on, the unit starts seeking sensor figures in a cyclical way. Previously, however, the start-up process is implemented. Red, yellow and green LEDs will be flashing one after another for 1 second. This enables to control the LEDs' functioning. In addition, a specific interruption of the procedure enables the unit's referencing to the sensor's current measuring value. In that case the start-up procedure must be interrupted twice in a row by specifically disconnecting the OPD during the yellow phase. During its subsequent connection, the current sensor value (light output) will be saved in non-volatile way in the EEPROM as a reference value (100%). Referencing will be confirmed by a single blinking of the green LED. Thereafter, the green LED must light up. The system has been referenced anew. Two thresholds ($P_{\text{yellow}}/P_{100\%}$ in %, as well as $P_{\text{red}}/P_{100\%}$ in %) may also be saved in the unit's EEPROM. If the current sensor's measuring value is $P > P_{\text{yellow}}$, the green LED will light up. In case the current measuring value falls short of this threshold, the yellow LED will be activated. Should the second P_{red} threshold fall short, red would be signaled. If no measuring value can be established, the red LED will be blinking and so signaling a faulty device. Its causes could be the following: no sensor is on; a faulty sensor; cable breaking or a short-circuit; a faulty measurement amplifier of the device. Should the green LED blink, the measurement amplifier would be either overdriven or faulty. A faulty reading might therefore result.

