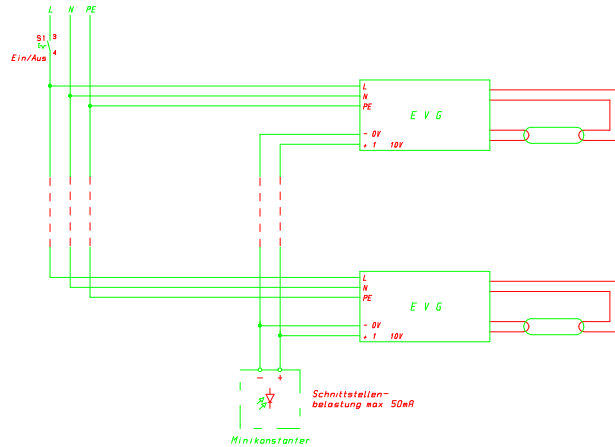
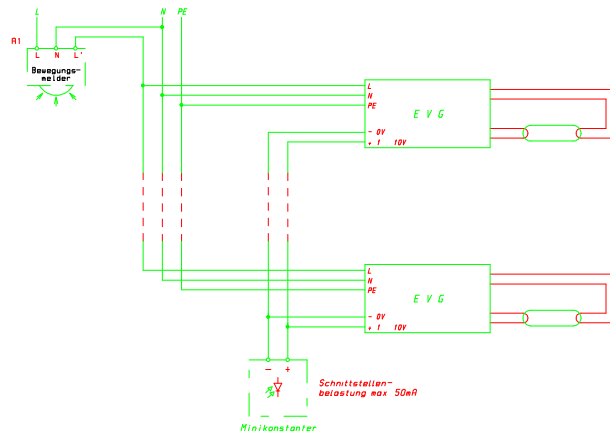


**Wiring diagrams:**

### Mini-Constanter with manual ON/OFF-switching



### Mini-Constanter with ON/OFF-switching through a motion detector



Error and technical alterations reserved.

# Manual

**Mini-Constanter for tubular and compact fluorescent lamps and low-voltage halogen lamps with electronic ballasts with 1-10V interface.**

06/2008

**Function:**

The mini-constanter provides for the control of a lighting system with electronic ballasts for fluorescent lamps or compact fluorescent lamps and of electronic transformers for low-voltage halogen lamps with an interface of 1-10 V. It is wired directly to the low-voltage interface and requires no additional power supply.

The mini-constanter has an integrated light-sensor which responds to the mixed light level of daylight and artificial light. If the daylight portion within the room increases the mini-constanter reduces the portion of the artificial light. The daylight decreases the portion of the artificial light increases proportionally. The total brightness in the room always is kept constant. The light level to be kept constant can be adjusted with a potentiometer at the mini-constanter (set point adjustment).

**Mounting instructions:**

The mini-constanter shall be mounted inside the room such that the mixed light level comprising the daylight portion as well as the artificial light portion inside the room easily can be received. During the mounting of the mini-constanter the following shall be observed:

- It should not be mounted in the direct neighborhood of doors, passage ways or other areas where light levels frequently are changing.
- Not to be mounted in the direct neighborhood of windows.
- The integrated light sensor should not be illuminated directly by sports or other lamps.
- The mini-constanter shall be mounted such that the transparent cap shows vertical to the floor. The ceiling height of the room should be 2,5m minimum in order to prevent unwanted reflections.
- When wiring the type MK/LS it shall be observed that the connecting cable at the lamp is UV-resistant and stands a test voltage of 2500V.

**Recommended mounting place:**

Type MK/ 1L : mounting into the ceiling in the midst of a room

Types MK/ LS, MK/ LSK : to be fastened with their clamps to fluorescent lamps

**Set-point adjustment:**

The adjustment of the set point should be made at a time when the daylight portion inside the room is quite low so that the adjustment can be made in the dark. A too high brightness complicates the adjustment of a defined brightness level due to sudden changes in the brightness of the daylight portion.

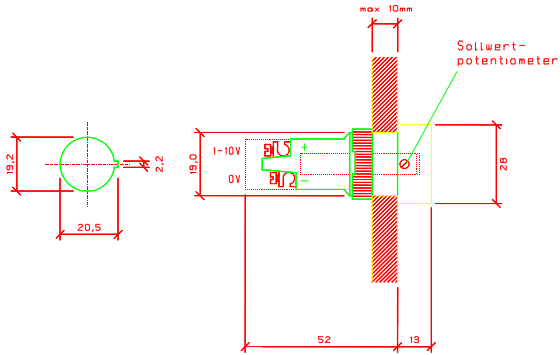
- Turning the potentiometer to the right
- ⇒ increase of the set value
- Turning the potentiometer to the left
- ⇒ reduction of the set value

**Technical data:**

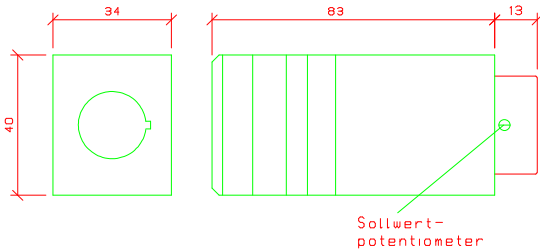
Mini-constanter Type:	MK/1L	MK/LS	MK/LSK
Order-no.:	50.13.400	50.13.410	50.13.411
Dimensions:	please refer to dimensional drawings		
Weight:	25g	60g	100g
Working temperature:	0°C...+45°C	0°C...+45°C	0°C...+45°C
Terminals:	screw terminals for 1-wire multi-core cable for maximum 1,5mm², with contact protection according to VBG 4		
Control Range:	approx. 15-800 lux (lux-value directly at the mini-constanter)		
Coverage angle of the light sensor:	90 <sup>0</sup>	90 <sup>0</sup>	90 <sup>0</sup>
Maximum wire length:	50 m	50m	50m
Power input:	>5mW (from the ballast or transformer)		
Minimum current from the Ballast or transformer:	0,5mA (at short-circuited control voltage)		
Protective class:	II (protective isolation)		
Protective type:	IP 20	IP 20	IP 20
Wiring:	according to wiring diagrams		
Range of the control voltages:	1-10V DC	1-10V DC	1-10V DC
Decline period of the control output:	approximately 1-30 secs (in dependence of the control difference)		
Load capacity of the control exit:	50mA (approximately 50 electronic ballasts or transformers with 1-10V interface)		

**Dimensional drawing:**

**MK/1L**



**MK/LS**



**MK/LSK**

