theben

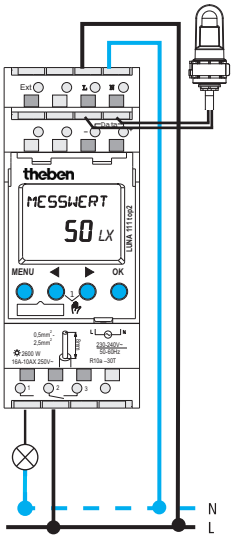
LUNA

LUNA 111 top2
LUNA 112 top2

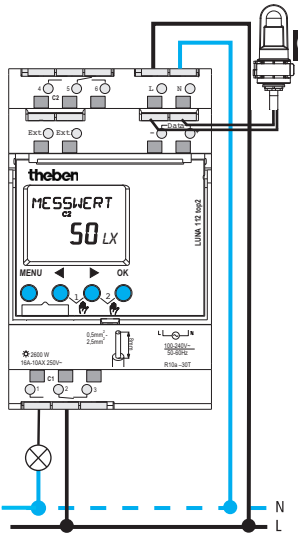
111 0 100, 111 0 200
112 0 100, 112 0 200

Assembly and operating instructions
Digital twilight switch

D **GB** F I E P



LUNA 111 top2



LUNA 112 top2

Current connection required for smooth zerocrossing switch operation (see connection diagram)!

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Basic safety instructions

⚠ WARNING

Danger of death through electric shock or fire!

➢ Installation should only be carried out by professional electrician!

- The device corresponds to EN 60669-2-1; it is designed for installation on DIN top hat rails (in accordance with EN 50022) and for use in normal environment

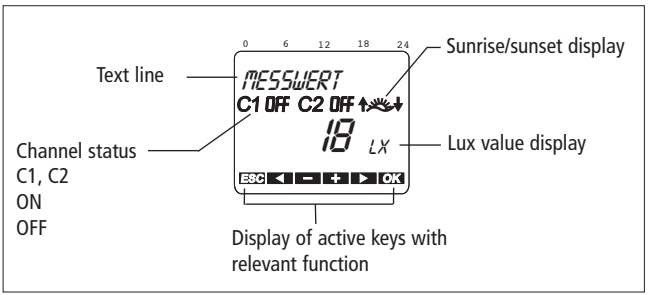
Designated use

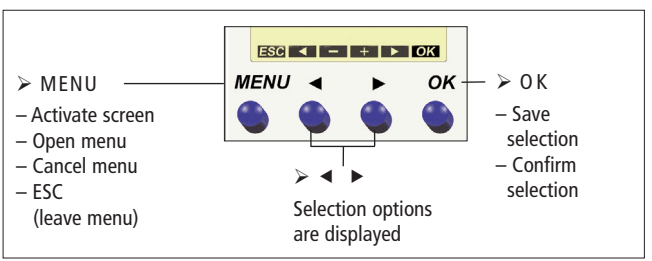
- The twilight switch is used to control street lighting equipment, external staircases, display windows, entrances etc.
- Only use in enclosed dry spaces (equipment); sensor is installed in the open-air

Disposal

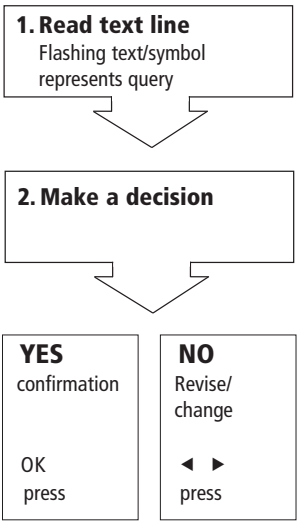
Dispose of equipment in an environmentally-friendly manner

Screen and keys

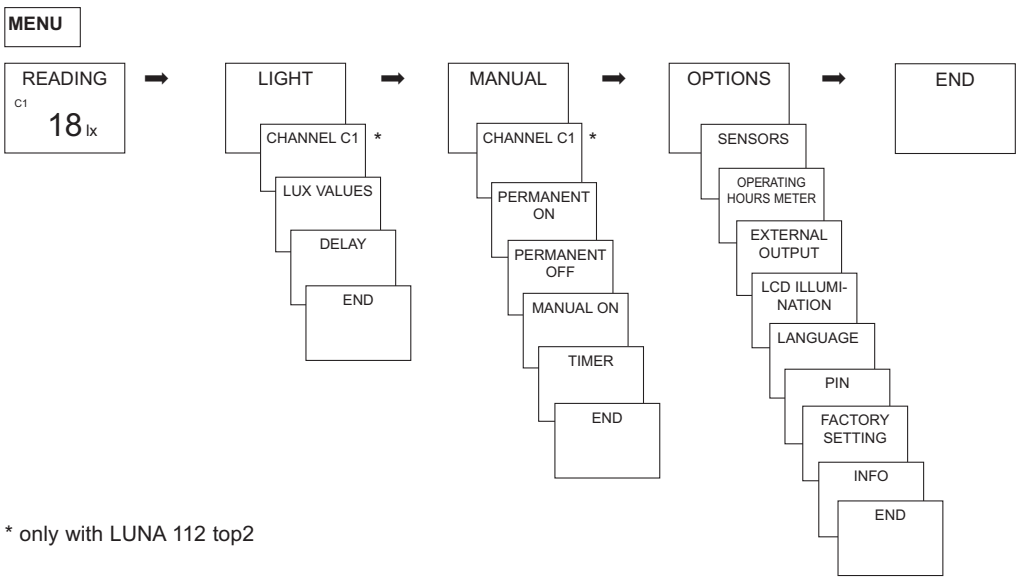




Operating instructions



Overview of menu selection



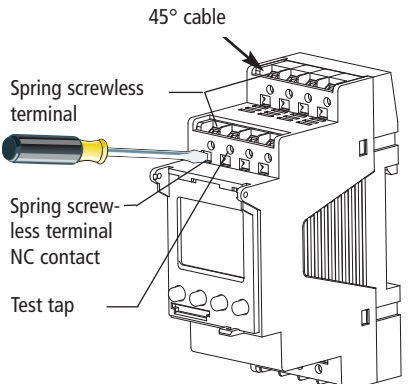
* only with LUNA 112 top2

Connection/installation

⚠ WARNING

Warning, danger of death through electric shock!

- ➢ Must be installed by professional electrician!
- ➢ Connect power source.
- ➢ Cover or shield any adjacent live components.
- ➢ Ensure device cannot be switched on!
- ➢ Check power supply is disconnected!
- ➢ Earth and bypass!



Connect cable

- ➢ Strip cable by 8 mm (max. 9).
- ➢ Insert cable at 45° in the open terminal (2 cables per terminal is possible).
- ➢ Press screwdriver downwards to open spring screwless terminal.

Connection/installation of light sensor

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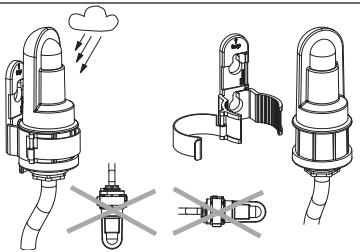
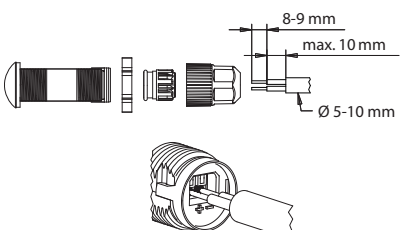
- Take length of connection cable into account: max. 100 m (2 x 1.5 mm^2), max. 50 m (2 x 0.75 mm^2)
- Avoid running sensor wiring parallel to mains power cables.
- Connect power source. **Ensure correct polarity**.
- Mounting light sensor: 0.5-2.5 mm^2, strip cable by 10 mm (max. 11 mm).
- Installing light sensor: 0.25-1.5 mm^2, strip cable by 8 mm (max. 9 mm).

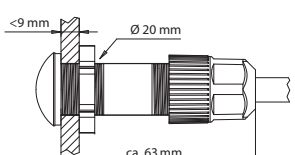


Mounting light sensor

907 0 456 **907 0 415**



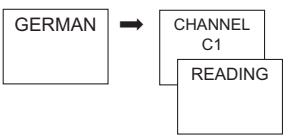
Installing light sensor



Initial start-up

Set language, channel and measured value

The device is preset at 15 lx for switch on/switch off level.



➢ Press required key and display follows on screen (see picture).

If all settings are performed, the screen alternately shows the automatic display and READING.

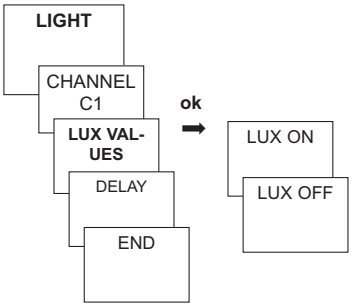
If a sensor is connected, the measured lux value appears on screen (only during mains operation).

Typical brightness values

Daylight (bright)	80.000 lx
Office accommodation	500 lx
Hallways and stairs	100-150 lx
Street lighting	15 lx
Full moon	ca. 0.3 lx

Set lux values

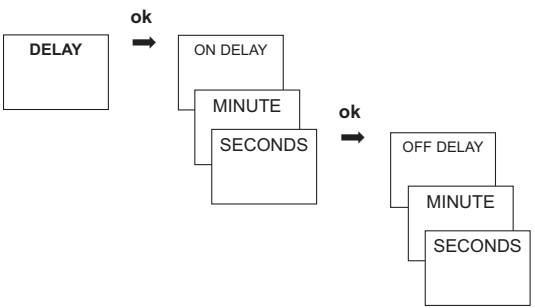
➢ Press **MENU** (see picture).



Set delay

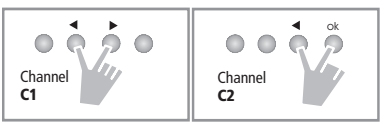
➢ Press **MENU** (see picture).

An on/off delay of **1 minute** is preset to avoid faulty operation caused by lightning, car headlights etc.
When the delay ends the channel status will flash ON/OFF.



Manual and permanent switching

Manual and permanent switching can be set using the menu in **MANUAL** or (in the automatic screen) by key combination (see picture).



Activate manual switching

➢ Briefly press both keys simultaneously.

Activate permanent switching

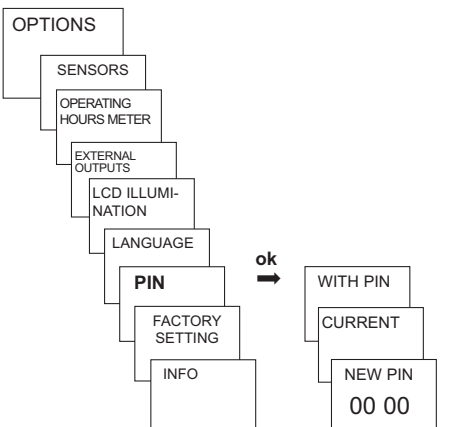
➢ Simultaneously press both keys for 2 seconds.

Cancelling manual/permanent switching

➢ Press both keys simultaneously

Enter PIN code

The **PIN code** is set via the menu in **OPTIONS** (see picture).
If you have forgotten the PIN please call the Theben Hotline.



Allocate sensors

The **SENSORS** are allocated in the menu under **OPTIONS**.

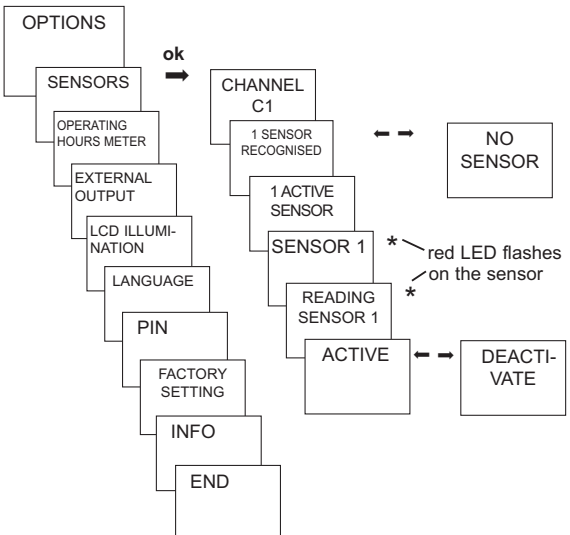
➢ Press **MENU** (see picture).

Connection options:

1 LUNA + 4 light sensors
10 LUNA + 1 light sensor

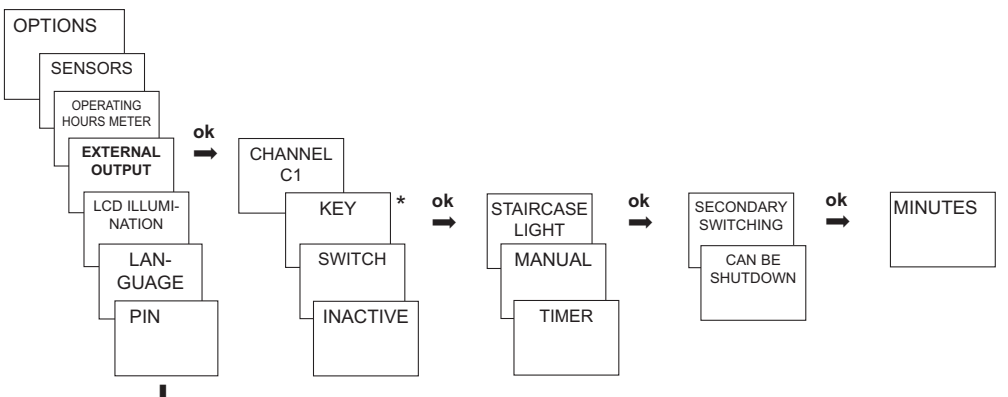
∑ max. 16 devices (LUNA + light sensors)

Presetting: all connected sensors are active for all channels. The sensor that sends the lowest lux value is active.



External output

The **EXTERNAL OUTPUT** is set via the menu in **OPTIONS** (see picture).

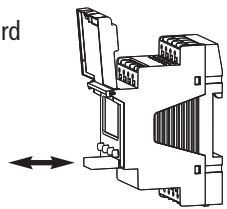


* Use key without glow lamp.

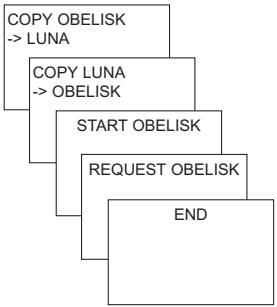
OBELISK top2 memory card

Use memory card

- Insert memory card in device.
- Request data, read into/from device or start Obelisk program.
- OBELISK top2 memory card (No. 907 0 404) remove- after programming etc. and store in cover.



Avoid mechanical stress or dirtying with other storage/transport methods.



COPY OBELISK -> LUNA

- Confirm menu item by pressing **OK**. The display shows **COPY LIGHT+PROG**
  Only the delays, lux values and special programs are copied.

COPY ALL DATA
All data is copied.

END
Remove OBELISK

Technical data

Nominal voltage:	230–240 V~ (LUNA 111 top2)	
	100–240 V~ (LUNA 112 top2),	
	+10 %/-15 %	
Frequency:	50–60 Hz	
Brightness range:	1–99,000 lx	
On/off switch delay:	0–59 min	
Power consumption:	type 3 VA	
Switch output:	phase-independent (zero-crossover switching)	
Contact:	two way switch	
Contact material:	$AgSnO_2$	
Switching capacity:	16 A/250 V~ cos $\varphi = 1$	
Fluorescent lamp switching capacity:	10 AX	
Switching capacity min.:	10 mA/250 V AC	
	100 mA/12 V AC/DC	
Glow lamp load:	2600 W	
Halogen lamp load:	2600 W	
Fluorescent lamps:	uncorrected:	2300 VA
KVG	series-corrected:	2300 VA
	parallel-corrected:	800 VA (80µF)
	Lead-lag circuit (duo):	2300 VA
Fluorescent lamps EVG:		650 VA
Mercury and sodium vapour lamps:		
	parallel-corrected:	800 VA (80µF)

Compact fluorescent tubes (EVG):	22x7 W, 18x11 W, 16x15 W, 16x20 W, 14x23 W
Permissible ambient temperature:	–30 °C ... +55 °C, –40 °C ... +70 °C (sensor)
Protection class:	II (light sensors III) if correctly mounted
Protection rating:	IP 20, IP 55 (Mounted light sensor), IP 66 (Installation light sensor) in accordance with EN 60529

Service address/Hotline

Service address

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