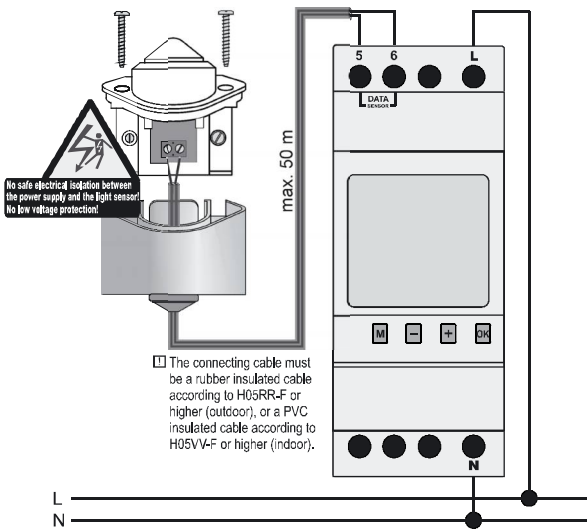


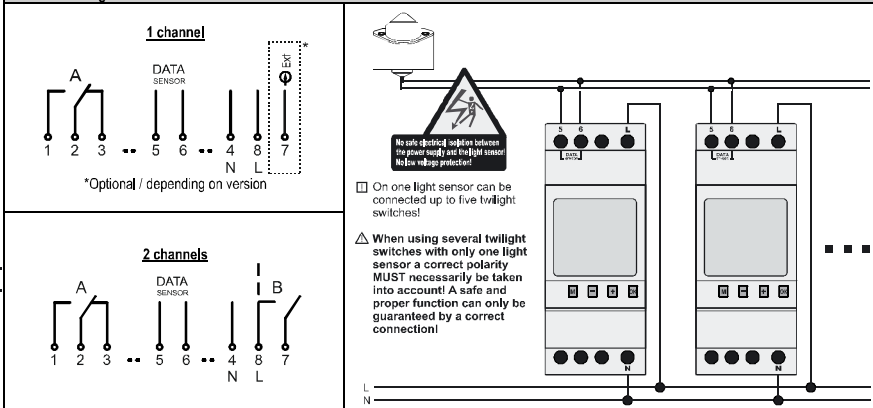
Connection power supply / sensor



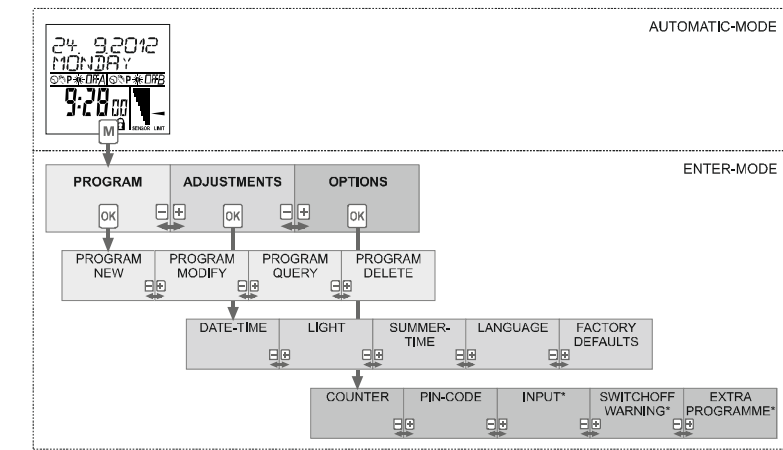
Safety instructions

- ⚠ CAUTION! DANGER OF LIFE / RISK OF FIRE AND ELECTRIC SHOCK!**
 - ▶ Installation and assembly of electrical equipment must be carried out only by a skilled person!
 - ▶ Connect the supply voltage/frequency as stated on the product!
 - ▶ Disconnect device / sensor from power supply for wiring and installation purposes! Check power supply is disconnected!
 - ▶ Only connect the sensor which is included in delivery!
 - ▶ No safe electrical isolation between the power supply and the light sensor! No low voltage protection!
 - ▶ Secure the connecting cable between installation device and digital sensor from impermissible/unintentional removal!
 - ▶ The safety precautions of DIN VDE 0100, electric shock, and fire danger have to be met.
 - ▶ Defective devices / sensors have to be put out of service immediately!
- Warranty void if housing opened by unauthorised person!
 - The electronic circuit is protected against a wide range of external influences. Incorrect operating may occur if external influences exceed certain limits!
 - Installation and assembly of electrical equipment must be in accordance with local building and electrical codes!
- Usage / disposal**
- The digital twilight switch is intended for installation on DIN-Rail and for lighting control.
 - The device and the included battery are to be disposed in an environment-friendly way and according to current law.

Connection diagram 1 channel version / 2 channels version



Menu overview



Symbol legend

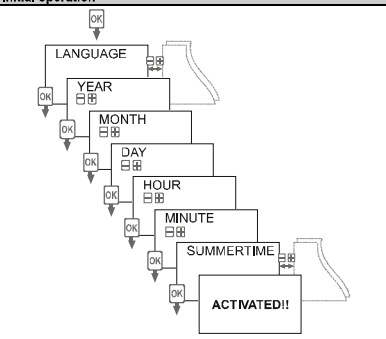
	Power plug symbol (flashing / alternating with text display): While the power supply is disconnected, the display shows a power plug symbol (flashing). The time switch is then operated in the reserve mode. Press M -button for 1 sec. to "wake up" the time switch.
On / Off	Channel is switched ON / Channel is switched OFF.
	Current state is based on a manual over-ride.
	Current state is based on a programmed ON or OFF switching time.
	Current state is based on twilight switching according to the set LUX switching threshold in the morning and the LUX switching threshold in the evening. Sun symbol = LUX switching threshold in the morning exceeded Moon symbol = LUX switching threshold in the evening exceeded
P	Current state is based on a permanent program.
	Sensor: Displays the current LUX value / sensor value (8 levels) Limit: Display of the LUX threshold value (flashes during delay time)
1.2.3.4.5.6.7	Days of the week Monday, Tuesday, ... Sunday. The underscores indicate if the program is active for the days above.
-#####*	Display of the menu size.
LX	Display of the lux value.
	The time switch is locked; to unlock the device the PIN has to be entered.

Key function

Automatic-Mode	Enter-Mode	Channel OFF / manual permanent switching
M To access the Enter-mode (program, adjustments, options) from the automatic-mode.	← To revert to the beginning of the current (sub-) menu.	By pushing A/B -button (M -button) a manual switch of the channel takes place. The resulting switching status is marked with the hand-symbol and remains until the next programming step / twilight switching occurs. (temporary over-ride)
A/B To switch the channel ON or OFF until the next programming step occurs.	 To adjust the flashing digit. To scroll through a choice.	Permanent switching status
OK Without power supply : Activate the twilight switch. Power supply operation: Info about current Lux value.	→ To confirm the selection or the entered data.	By pressing the channel button A/B for more than 3 sec. the channel is permanently switched ON or OFF. The status remains until the next manual switching occurs (> 3 sec.). (permanent over-ride)

INITIAL OPERATION / LIGHT ADJUSTMENTS

Initial operation



Menu light

- ADJUSTMENTS -> LIGHT ->**
- **LUX SWITCHING THRESHOLD:** You can select the threshold for the twilight switching according to a light value in the morning (threshold morning) and the evening (threshold evening). [Default threshold morning: 20 LUX / Default threshold evening: 20 LUX]
- **LUX DELAY TIME:** It is possible to set a delay to avoid undesirable switching due to disturbing light sources, e.g., car lights, or lightning. [Default: 1 minute]
- **LUX HYSTERESIS:** It is possible to set a hysteresis to avoid undesirable switching due to disadvantageous positioning of the sensor, e.g., close to a yard light. [Default: 25%]

Typical brightness values:

Bright sunny day	100.000 lx
Overcast summer day	20.000 lx
In the shade in summer	10.000 lx
Overcast winter day	3.500 lx
Large football stadium	1.400 lx
TV studio lighting	1.000 lx
Room lighting / Office Lighting	800 lx
Corridor lighting	100 lx
Street lighting	10 lx
Candle 1 metre away	1 lx

Prog PROGRAMMING

PROGRAMMING - General information

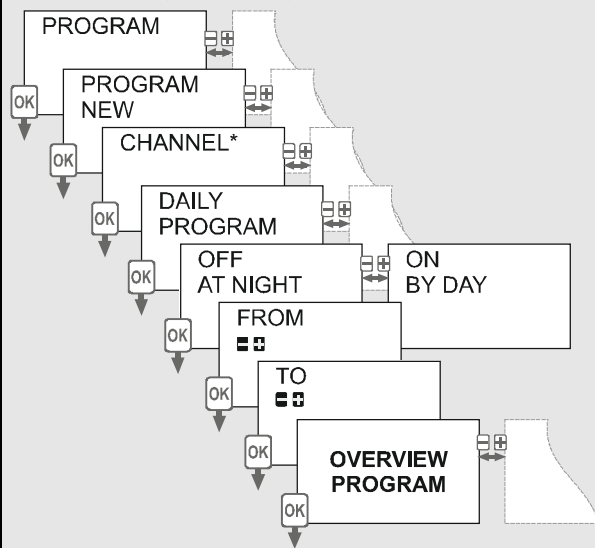
The twilight switch is permanently active (according to the set LUX switching thresholds) and will be overdriven by a programmed ON and/or OFF time (Daily / Permanent programs).

Programs are executed according to their corresponding priority:

- highest priority ⇨ Manual over-ride Permanent (3 sec. push)
- ↑ ⇨ Permanent program
- ↑ ⇨ Daily program
- lowest priority ⇨ Twilight switching (according to the set LUX switching thresholds)

PROGRAMMING – Daily Program

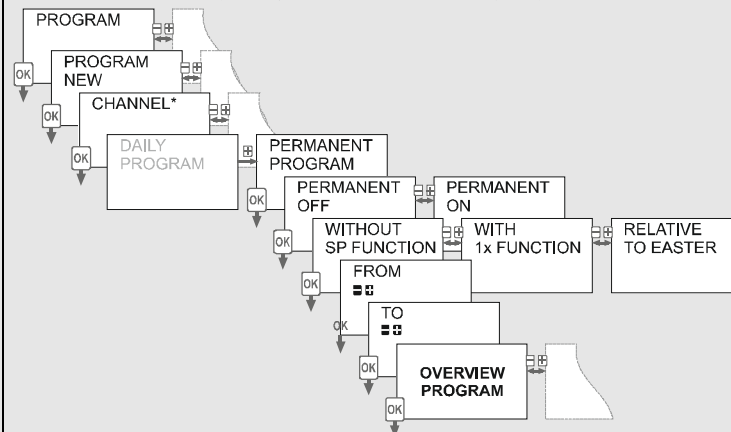
DAILY PROGRAM: Daily repetition of the programmed switching times.



*Optional / depending on version

PROGRAMMING – Permanent Program

PERMANENT PROGRAM: Allows you to program a permanent ON or OFF switching time by the date and time.



- WITHOUT SPECIAL FUNCTION:** The program will be applied each year fixed to the entered date and time.
- WITH 1xFUNCTION:** The Program will be applied only once.
- RELATIVE TO EASTER:** The twilight switch takes into account the yearly shift for Easter holiday for the following years and corrects the activation dates. (For programs relative to Easter, Pentecost Carnival, Ascension,...). The programming is made in relation to Easter Sunday; E.g. START 8 DAYS BEFORE EASTER SUNDAY -> END 7 DAY AFTER EASTER SUNDAY.

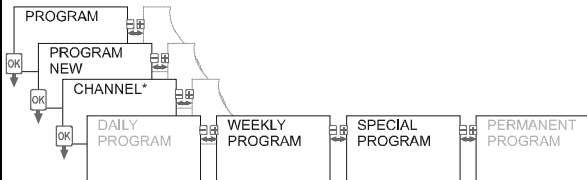
*Optional / depending on version

OPTIONAL / DEPENDING ON THE TYPE

EXTRA PROGRAMS

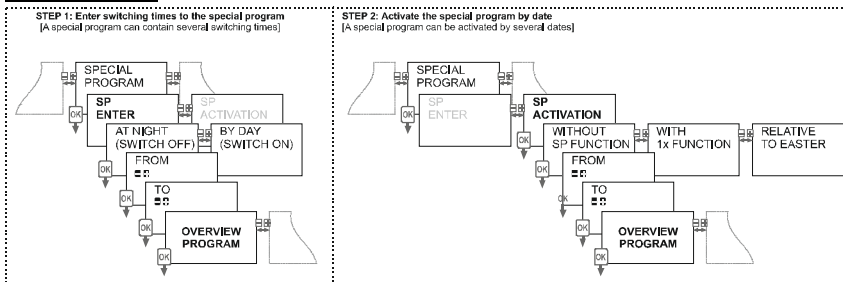
OPTIONS -> EXTRA PROGRAMS ->

You can extend your program functionalities with further programs. For this you have to activate the 'EXTRA PROGRAMS' within the menu Options. After activating the Extra programs two new program functionalities will be offered within the programming menu *new program:



- WEEKLY PROGRAM:** Unrestricted block programming for each day..
- SPECIAL PROGRAM:** Yearly program (Please see the explanation =>).

Explanation special program:



Programs are executed according to their corresponding priority:

- highest priority ⇨ Manual over-ride Permanent (3 sec. push)
- ↑ ⇨ Permanent program
- ↑ ⇨ Special program
- ↑ ⇨ Weekly program
- ↑ ⇨ Daily program
- lowest priority ⇨ Twilight switching (according to the set LUX switching thresholds)

External Input

OPTIONS -> INPUT ->

The external input can be connected to a switched contact such as a push-button or light switch. Therefore you can activate and de-activate functions from a remote location or automatically from a control system: Within the menu INPUT you can set following functions: **CHANGE FUNCTION (ON<->OFF)** OR **TIMER FUNCTION**.

Connection external input:

- ⚠ Connect the voltage/frequency as stated on the product label!
- External input: **Terminal 7 (! Voltage EXT INPUT = Supply voltage of the time switch!)**

Switch off warning

OPTIONS -> SWITCHOFF WARNING ->

Within menu OPTIONS and submenu SWITCHOFF WARNING the early warning switch off function can be activated and deactivated:

- WARNING NO:** The function remains inactive.
- WARNING YES:** The function is activated and the switch off is signalled in advance (For illumination purposes the warning is signalled by the flashing of the light according DIN 18015-2 = warning to avoid sudden darkness).
- ⚠ An activated warning affects all channels and all OFF switching times!



Data-key

With a Data-key following activities are possible:

- SAVE DATA TO DATA-KEY:** Writes the data from the twilight switch into the memory of the Data-key.
- PROGRAM TWILIGHT SWITCH:** Writes the data located inside the Key into the memory.
- KEY FUNCTION:** The twilight switch will solely apply programming steps from the Data-key. The program of the twilight switch is suppressed.
- KEY READOUT:** To query the switching program of the Data-key.

