

User instructions

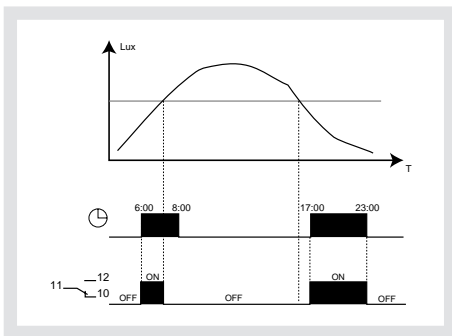
Programmable light sensitive switch

Operating principle:

The EE 170 programmable light sensitive switch controls light systems according to a program set by the user, depending on natural illumination.

- during the work authorization period, depending on whether the measured light level is below or above the order, it will be switched on or off.
- during the work banning period, the contact remains without tension, whatever the light level is.

The light sensitive switch includes a built in time delay which avoid unnecessary switching due to temporary factors such as car beams etc...



Description:

The programmable light sensitive switch EE 170 has two main functions:

- a light sensitive switch comprising:
 - ① Override selector switch to allow permanent setting ON or OFF, auto or test mode.
 - ② Lighting range selector.
 - ③ Potentiometer to set light level.
 - ④ Indicator to show output switching.

• a programmer to establish the automatic operating cycle.

It comprises 8 different pre-defined programs. The switching time of this programs can be modified if necessary.

The programmer comprises 4 keys:

- ⑤ **P** to select the program to apply
- ⑥ to scroll program steps
- ⑦ **reset**
- ⑧ **+** and **-** to change settings

On the display are indicated :

- A. the time
- B. the day of the week (1 = Monday, 2 = Tuesday ... 7 = Sunday)
- C. the applied program
- D. the circuit status ON or OFF

Time setting :

Press key + or - .
A continuous pressing on this keys will scroll up or down minutes, hours and then days.

Programming:

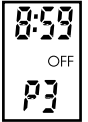
Select the appropriate program among the 8 described below. The switching time can be modified if necessary.

P	1234567	Prog
P0	1 -> 7	OFF
P1	1 -> 7	ON
P2	1 -> 7	
P3	1 -> 7	
P4	1 -> 7	
P5	1 -> 5	
	6 - 7	
P6	1 -> 5	
	6 - 7	
P7	2-3-4	
	5	
	6 - 7	
	1	

For example:

Apply program P3

1. press key "P" until "P3" is displayed.



2. if the pre-programmed switching time meets your requirements, then programming is complete.

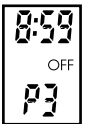
To modify a program:

1. select with key "P" the program to modify
2. scroll program steps with the key .
3. modify the switching time with keys "+" or "-"
4. press the key to display the next program step and modify it, if necessary.
5. press "P" to confirm all modifications
6. a mark (*) appears next to the program number, to indicate that the program has been modified.

Example

Switch on at 16h45 instead of 17h as scheduled.

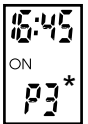
1. press key "P" to select the program P3



2. press until display "17:00"



3. press "-" until display "16:45"



4. press "P" to confirm.

To check your settings

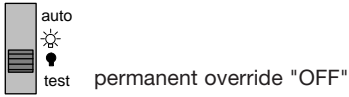
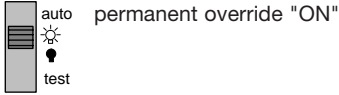
Press repeatedly key to display program steps : switching time and circuit status (ON or OFF).
To switch back to automatic mode press key "P".

To reset the time switch

Press the "Reset" button, it will cancel all modifications made on pre-registered programs.

Permanent overrides

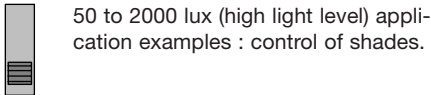
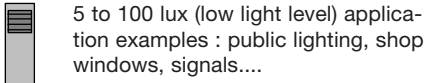
the override selector ① allows permanent overrides which have priority on programming and the measured light level.



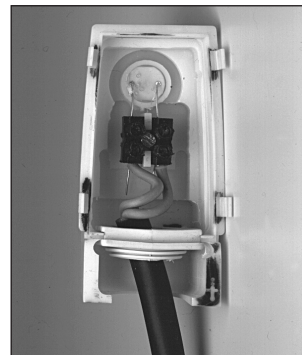
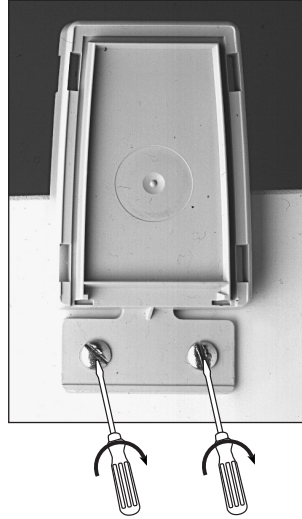
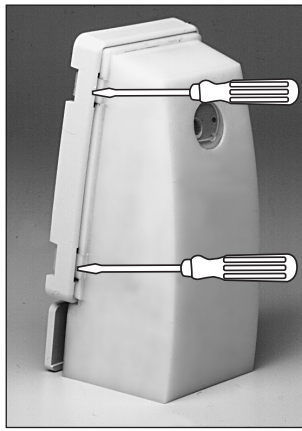
Setting of the working level:

The test position of the override selector ① makes easier the setting of the working level, it removes the ON and OFF delay.

Select the sensitivity range which suits with the application (selector ②) :



At the appropriate moment of the day, put the selector ① in "test" position ; turn the potentiometer ③ up to the switching point (the indicator ④ lights) ; put the selector back to position "auto", the normal operating mode of the device.



Mounting of the cell:

To ensure a good working of the light sensitive switch, the cell must not be influenced by artificial light or direct solar radiation and has to be sheltered from dust and humidity.

In case of disconnection of the link between the cell and the light sensitive switch, the output of the device will be switched on.

Make sure the light sensitive switch is unplugged before connecting the cell.

Technical specification:

Electrical specification

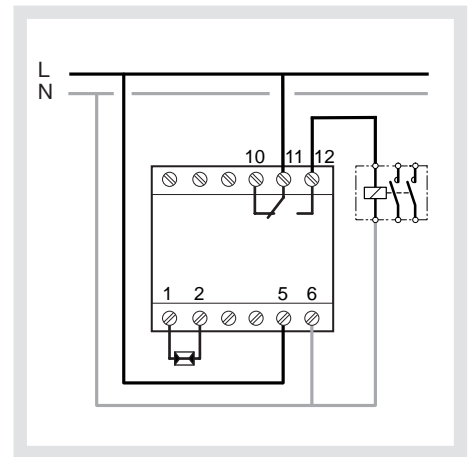
- Voltage rating : 230V~ +10/-15% 50 Hz
 - Consumption : 1,5 VA max.
 - Output : 1 voltage free changeover contact
- Max. breaking capacity :
- | | |
|------------------------------|-------------|
| | 16A 250V~ |
| Incandescent lamp | 2000W 230V~ |
| Halogen lamp | 1000W 230V~ |
| Fluorescent lamp : | |
| uncompensated | 1000W 230V~ |
| compensated in series (10µF) | 1000W 230V~ |
| // compensated (15µF) | 200W 230V~ |
| duo | 1000W 230V~ |

functional characteristics

- 2 sensitivity ranges 5 to 100 lux
50 to 2000 lux
- weekly cycle
- 8 predefined programs
- program setting : 1 minute increments
- accuracy : ± 6 min./ annum
- operating reserve : lithium battery total of 3 years of supply failure
- on and off delay : 15 to 60 s.
- working temperature :
 - 30 °C to +60 °C (cell),
 - 10 °C to +50 °C (Modular device)
- Storage temperature :
 - 20 °C to +60 °C
- Protection class (cell) : IP54
- Insulation class (cell) : II

Connection capacity

- modular device : 0,5 to 4 mm²
 - cell : 0,75 to 2,5 mm²
- Max length between cell and modular device : 50 m
mounting of the cell with 2 screws
Ø 2,5 mm



Warranty



A warranty period of 24 months is offered on hager products, from date of manufacture, relating to any material of manufacturing defect. If any product is found to be defective it must be returned via the installer and supplier (wholesaler). The warranty is withdrawn if :

- after inspection by hager quality control dept the device is found to have been installed in a manner which is contrary to IEE wiring regulations and accepted practice within the industry at the time of installation.
- the procedure for the return of goods has not been followed.

Explanation of defect must be included when returning goods.