

Outdoor lighting of a detached private house

Task

“easy” is require to control the outdoor lighting of a detached or semi-detached private house.

The outdoor lighting covers the garden, the property entrance with adjoining garage, as well as the house entrance area. The lighting system can be switched ON / OFF via main switch (S1). If the system is in operation, the lighting is switched on at the onset of darkness by means of a twilight switch (S2). The garden lighting is switched on in Automatic mode each evening at the same time with the help of a time switch. In Manual mode the garden lighting can be switched ON / OFF irrespective of the time switch. Three motion sensors (S5-S7) are used to switch on lighting for the yard entrance, the garage forecourt and the house entrance for specific times. A Panic button (S8) can be used to switch ON / OFF all lighting groups without time restrictions and without the control of the twilight switch (S2).

Wiring

1. Inputs:

- I1 Main switch S1 (ON/ OFF)
- I2 Twilight switch S2
- I3 Twilight switch garden S3 (Automatic / Manual)
- I4 Light pushbutton S4 (with Manual mode -> Garden ON / OFF)
- I5 Motion sensor S5 (property entrance)
- I6 Motion sensor S6 (garage forecourt)
- I7 Motion sensor S7 (house entrance)
- I8 Panic button S8

2. Outputs:

- Q1 Garden lighting H1
- Q2 Yard entrance lighting H2
- Q3 Garage forecourt lighting H3
- Q4 House entrance lighting H4

3. Parameters:

- T1 Lighting time yard entrance
- T2 Lighting time garage
- T3 Lighting time house entrance

- H1 Lighting times for garden
- H2 Lighting times for yard entrance