

## 8.1 Stairway or corridor lighting

### 8.1.1 Requirements for a stairway lighting system

The basic requirements for a stairway lighting system are as follows:

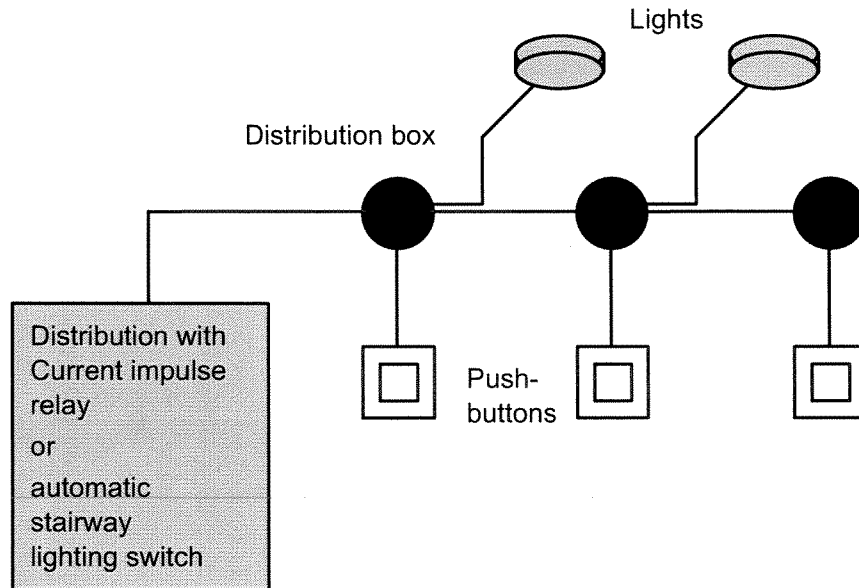
- When someone is using the stairway, the lighting should be switched on.
- If no-one is in the stairway, the lights should be switched off in order to save energy.

### 8.1.2 Previous solution

The two conventional options for switching the lights:

- With a pulse relay
- With an automatic stairway lighting switch

The wiring of both these lighting systems is identical.



#### Components used

- Momentary switches
- Automatic stairway lighting switch or pulse relay

### **Lighting system with pulse relay**

Function of a lighting system with pulse relay:

- Press any pushbutton: The lighting is switched on
- Press any of the pushbuttons once again: The lighting is switched off.

**Disadvantage:** People often forget to switch off the lights.

### **Lighting system with an automatic stairway lighting switch**

Function of a lighting system with automatic stairway lighting switch:

- Press any pushbutton: The lighting is switched on
- The lights are switched off automatically when the preset time has expired.

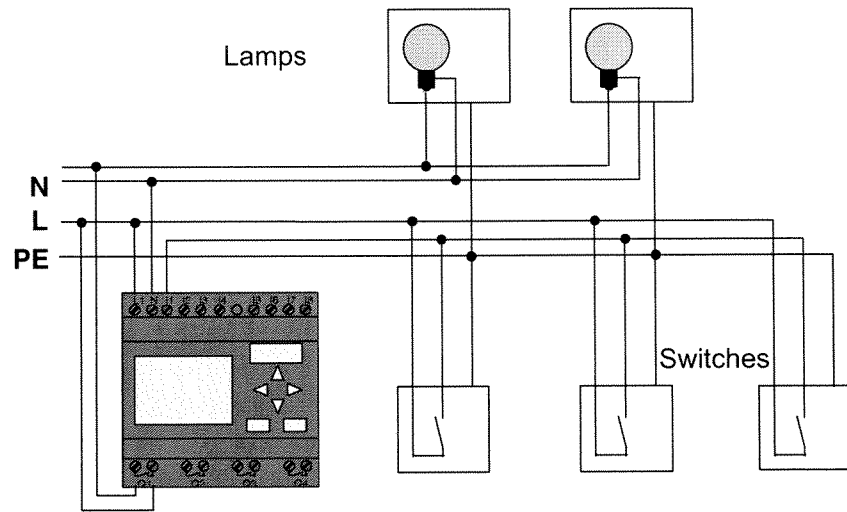
**Disadvantage:** The lights can not be switched on for a longer period of time (e.g. when cleaning the stairway). The switch for permanent lighting is usually located on the automatic stairway lighting switch and may be difficult or impossible to access.

## **8.1.3 Lighting system with IDEC SmartRelay**

A IDEC SmartRelay system allows you to replace the automatic stairway lighting switch or the Current impulse relay. You can also implement both functions (timed off-delay and Current impulse relay) in a single unit. What is more, you can incorporate extra functions without making any alterations to the wiring. Here are some examples:

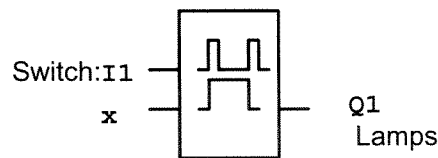
- Current impulse relay with IDEC SmartRelay
- Automatic stairway lighting switch with IDEC SmartRelay
- Dual-function switch with IDEC SmartRelay
  - Switch light on
  - Switch on permanent lighting
  - Switch light off

## Wiring of a lighting system with FL1D-H12RCC



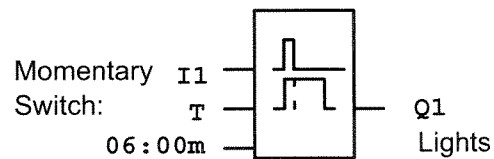
The external wiring of a lighting system with a IDEC Smart-Relay is no different than it is for a conventional stairway and corridor lighting system. Only the automatic stairway lighting switch/Current impulse relay is replaced. Supplementary functions are entered directly in IDEC SmartRelay.

### Current impulse relay with IDEC SmartRelay



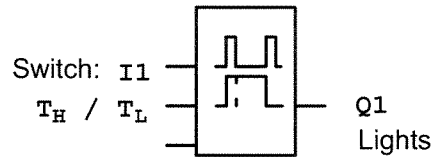
Output Q1 is toggled with a pulse signal at input I1.

### Automatic stairway lighting switch with IDEC SmartRelay



Output Q1 is set for the duration of 6 minutes with a pulse signal at input I1.

## Dual-function switch with IDEC SmartRelay



Output Q1 is set for the duration of a preset time  $T_H$  with a pulse signal at input I1.

The permanent lighting function is enabled by keeping the momentary switch pressed for a specified time  $T_L$ .

### 8.1.4 Special features and expansion options

Other options for increasing comfort or saving energy are, for example:

- A flashing function that indicates that the light is about to be switched off automatically.
- You can integrate various central functions:
  - Central off
  - Central on (panic button)
  - Control of all lamps or individual circuits by means of a daylight control switch
  - Controlling by means of an integrated timer (e.g. permanent lighting only until 24.00 h; disabled at specific times)
  - Automatically switching off the permanent lighting on expiration of a preset time (e.g. after 3 hours)