

Stairway and cellar lighting with two times

Task

“easy” is required to automate the lighting of a stairway and a cellar.

In these areas two lights each can be controlled via four pushbuttons each (S1-S4 and S5-S8). The lighting must be activated for a time of two minutes on pressing a pushbutton. The lighting time must be extended to 6 minutes if a pushbutton is pressed again after one second.

Wiring

1. Inputs:

I1-I4 Light pushbutton S1-S4 (stairway)
I5-I8 Light pushbutton S5-S8 (cellar)

2. Outputs:

Q1-Q2 Lights H1-H2 (stairway)
Q3-Q4 Lights H3-H4 (cellar)

3. Parameters:

Stairway:

T1 Activate lighting time for the first time
T2 Wait time
T3 Activate lighting again

Cellar:

T4 Activate lighting time for the first time
T5 Wait time
T6 Activate lighting again