

Light crossing request system with timing relay

Task definition

easy is required to control a pedestrian light crossing. These lights should only change to red for drivers when one of the two request buttons is actuated.

As soon as easy is in RUN status, the lights should switch to green for vehicles and red for pedestrians. The crossing light cycle runs with a 2 second pulse when pushbutton I3 or I4 (pedestrian request button) is actuated. The GREEN phase of the pedestrian crossing light is required to last 6 seconds. Only when the crossing light cycle is completed, does actuating the pedestrian request button start up a new cycle.

Note!

This application is only suitable for programming practice. In order to implement a real traffic light control, certain regulations (see RiLSA, VDE 0832) must be observed, such as red light monitoring or green-to-green interlock. Additional functions are also required for today's requirements, such as an extension of the green phases with an infra-red detector or synchronisation of several systems (green wave).

The program and additional functions can be implemented with an easy-E4. However, the requirements of the safety regulations cannot.

Device class used

easyE4

Wiring

Inputs

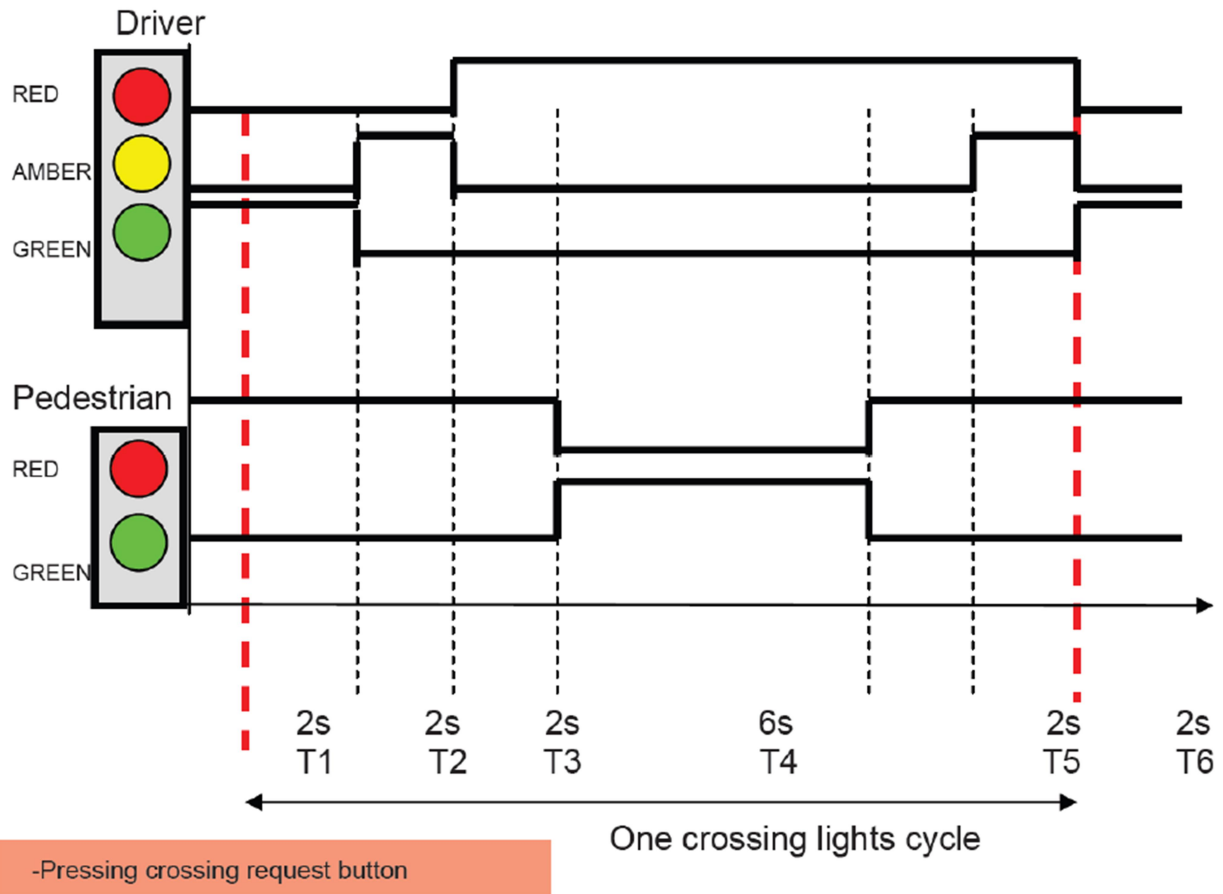
I03	Crossing request button
I04	Crossing request button

Outputs

Q01	DRIVER GREEN
Q02	DRIVER AMBER
Q03	DRIVER RED
Q04	PEDESTRIAN RED

Parameters

T01	Clock pulse 1 = 2s
T02	Clock pulse 2 = 2s
T03	Clock pulse 3 = 2s
T04	Clock pulse 4 = 6s
T05	Clock pulse 5 = 2s
T06	Clock pulse 6 = 2s



Important Note

All example programs have been created and tested with the greatest possible care. They are intended as executable example programs for learning purposes. During use, testing to ensure correct function in the application environment must be undertaken. The national safety standards which may apply must be strictly observed.

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