

Shutter control

easyE4 is required to control a shutter. The controls are to be operated by the P buttons of the easy or by means of a time switch with random switching.

Task

You can move the shutter up and down (Manual mode) using the P buttons, or by means of the time switch, with the shutter moved up in the mornings and down in the evenings.

Pressing a direction button in Manual mode will cause the shutter to be moved fully in the specified direction. The shutter drive is provided with internal end position switches so that it is disconnected when the top or bottom position is reached.

If you do not wish to open or close the shutter fully, you can interrupt the motion of the shutter by pressing the button for the opposite direction.

The special feature of Automatic mode is the random time switching that varies the switching times of the shutter within a 30-minute time frame in order to provide a kind of .closing simulation function during periods of absence.

Two display texts indicate whether manual or automatic mode (MANUAL/AUTO) is active.

Since the shutter has its own internal end position switches and is switched off when the end position is reached, the easy output is switched off via the run time monitoring function.

Operands

Inputs

P01	Auto off
P02	Shutter open
P03	Auto on
P04	Shutter closed

Outputs

Q01	Shutter open
Q02	Shutter closed

Parameters

D1	Auto off
D2	Auto on
H1	Time switch closed
H2	Time switch open
T1	Runtime monitoring
T2	Random time closed
T3	Start pulse closed
T4	Random time open
T5	Start pulse open

Example

The time switch enables the random time every day from 6:00 to 07:00. As the random time is set for 30 minutes, the shutter is opened between 6:00 and 6:30.

You change the times in the time switch in channel A. The time frame in channel A must be longer than the random time.