

Lighting with light intensity measuring

Task

A greenhouse lighting system consists of four lighting groups and is to be controlled by “easy” according to the light intensity measured. In Automatic mode the light intensity is measured with a light meter. This determines the number of lighting groups to be switched on. The lower the light intensity measured, the more lighting groups are switched on. The reference values for switching lighting groups on and off can be set individually. The lighting times are set via a time switch. The Automatic mode is activated via an ON and OFF switch. The individual lighting groups can be switched via the pushbuttons provided when Automatic mode is deactivated as well as outside of the lighting times.

Wiring

1. Inputs:

- I1 Switch S1 (Automatic ON/ OFF)
- I2 Light button S2 (lighting group H1)
- I3 Light button S3 (lighting group H2)
- I4 Light button S4 (lighting group H3)
- I5 Light button S5 (lighting group H4)
- I7 Analog input light intensity measuring

2. Outputs:

- Q1 Lighting group H1
- Q2 Lighting group H2
- Q3 Lighting group H3
- Q4 Lighting group H4

3. Parameters:

- A1 Switch on Light group H1
- A2 Switch off Light group H1
- A3 Switch on Light group H2
- A4 Switch off Light group H2
- A5 Switch on Light group H3
- A6 Switch off Light group H3
- A7 Switch on Light group H4
- A8 Switch off Light group H4
- H1 Duration of Automatic mode
- T1 Reset pulse of lighting groups