

Greenhouse ventilation

Task description

easy is required to control the side windows and roof windows of a greenhouse.

The main switch S1 is used to switch the system on and off. Selector switch S2 is used to define whether the windows are to be moved automatically or manually.

Automatic mode

In Automatic mode, the windows open every three hours and close after a fixed time. The opening times are different:

- At 00:00, 03:00, 09:00, 15:00 and 21:00 hours the windows open for 15 minutes
- At 06:00, 12:00 and 18:00 hours they open for half an hour.

If it is raining (S5), the windows close after a delay time of 10 seconds. The windows cannot be reopened until it has stopped raining.

In strong winds, severe drafts must be prevented. For this, a wind monitor outputs a signal (S6) to easy in order to close the side windows.

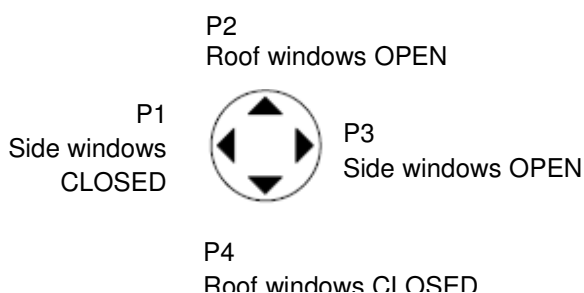
Note

During servicing, you can bridge the contact of the time switch via S7 in order to test the Automatic function.

Manual mode

In Manual mode, you can use S3/S4 to open and close all windows together.

To open or close the windows separately for servicing you use the P buttons on easy.



Note

The integrated limit switches stop the motors of the windows both for opening and closing.

Device class used

Easy500

Wiring

Inputs

- I01= S1 Main switch
- I02= S2 MANUAL/AUTOMATIC selector
- I03= S3 Manual mode: all windows OPEN
- I04= S4 Manual mode: all windows CLOSED
- I05= S5 Rain sensor
- I06= S6 Wind sensor
- I07= S7 Test Automatic function

Outputs

- Q01= M1 Motor 1 side windows OPEN
- Q02= M2 Motor 2 roof windows OPEN
- Q03= M1 Motor 1 side windows CLOSED
- Q04= M2 Motor 2 roof windows CLOSED

Parameters

- T01= Run time of the side windows, 8 sec.
- T02= Run time of the roof windows, 10 sec.
- T03= 500 ms pulse
- T04= 500 ms pulse
- T10= Time delay for all windows CLOSED in the event of rain 10 sec.
- H01+H02= Time switch, opening times of the windows

Time Settings of time switches

| | | | |
|------------------|------------|---------|-------------|
| Time switch H01= | Channel A: | Mo – Su | 00:00-00:15 |
| | Channel B: | Mo – Su | 03:00-03:15 |
| | Channel C: | Mo – Su | 06:00-06:30 |
| | Channel D: | Mo – Su | 09:00-09:15 |
| Time switch H02= | Channel A: | Mo – Su | 12:00-12:30 |
| | Channel B: | Mo – Su | 15:00-15:15 |
| | Channel C: | Mo – Su | 18:00-18:30 |
| | Channel D: | Mo – Su | 21:00-21:15 |