

Feed control system

Task definition

easy is required to control automatic feeding systems in a pond. Trout should be fed at different times depending on size and age. A fault message is to be output when the feeding container is empty.

An automatic feeding system consists of a conical container with a motor for the extruder screw. The metering of the feed quantity is determined by the on duration of the motor. The longer it is switched on, the more rotations occur, and therefore the more feed is metered. The conical container design and the vibration of the motor ensure that feed is always supplied.

Automatic feed system 1 at output Q1 supplies the breeding pond. Feed is to be provided each day at hourly intervals between 8:00 am and 18:00 pm. This means that each day a 2-second pulse activates the feed screw motor at hourly intervals between 8 am and 18:00 pm. However, feed is only supplied if the on switch at I1 is actuated and the level indicator at I4 signals "Full".

The second automatic feed system is activated for 2 seconds each day at 12:00 pm and at 16:00 pm, and at 8:00 am over the weekend.

The third automatic feed system is activated for 2 seconds at 9:00 am and 15:00 pm from Monday to Saturday.

Systems 2 and 3 also only supply feed if the on switch at I2 and I3 are actuated and the level indicator at I5 and I6 outputs a "Full" signal.

If one of the automatic feed systems is empty, this is indicated by a signal light via Q4.

If you are using an EASY512-DA-RC and a 12 V motor, you can operate the feed supply control system with batteries.

Device class used

easy500

Wiring

Inputs

- I01 On switch for automatic feed system 1
- I02 On switch for automatic feed system 2
- I03 On switch for automatic feed system 3
- I04 Level switch for automatic feed system 1
- I05 Level switch for automatic feed system 2
- I06 Level switch for automatic feed system 3

Outputs

- Q01 Automatic feed system 1
- Q02 Automatic feed system 1
- Q03 Automatic feed system 3
- Q04 Filling level signal lamp

Parameters

- H01 Daily signal 1
- H02 Daily signal 2
- H03 Daily signal 3
- T01 1 h clock pulse container 1
- T02 2 s Pulse container 1
- T03 2 s Pulse container 2
- T04 2 s Pulse container 3