

Mixing plant with direction change

Task definition

A stirrer is required to mix components in several stages at controlled times.

The mixing times are set as required. The number of mixing cycles is set at 3 x.

A stirrer in a food factory is required to mix different components in 3 mixing cycles.

After you have switched on the main switch, you start the system via Start button S2. This is indicated by H1.

Pressing S2 delays the start operation by 3 seconds. The mixer motor then turns in direction A for 8 seconds. This is followed by a wait period of 3 seconds after which rotation direction B is activated. After 15 seconds, the operation is completed and the motor is stopped.

The cycle counter is then incremented by 1. This counter is set so that it stops the system after 3 cycles and activates acoustic alarm E1 for 10 seconds. Once the mixing operation is completed, H1 lights up again and indicates that the system can be restarted again at S2.

Additional function

The number of mixing cycles is shown on the easy display.

Device class used

easyE4

Wiring

Inputs

I01 S1 Main switch (ON/OFF)
I02 S2 Start button

Outputs

Q01 M1 Stirrer in direction A
Q02 M2 Stirrer in direction B
Q03 E1 Acoustic alarm
Q04 H1 Indicator light

Parameters

T01 On-delay M1- rotation direction A (3 sec.)
T02 Run time of M1- rotation direction A (8 sec.)
T03 On-delay M2 - rotation direction B (3 sec.)
T04 Run time of M2- rotation direction B (15 sec.)
T05 Acoustic alarm duration of 10 sec.
T06 Start pulse for new mixing cycle
C01 Counter for mixing cycles, set to 3

Additional function:

C02 Display counter
D01 Display of counter actual value on easy display