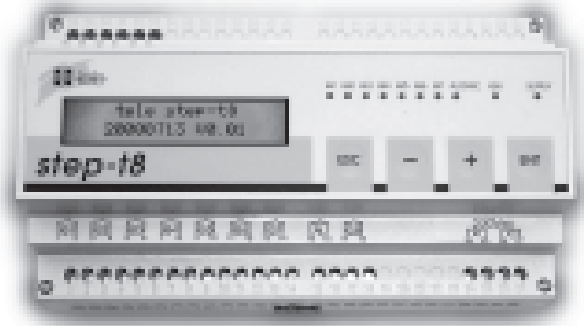


- Installation design
- Width 157.5mm
- Sequence processor
- 8 normally open and 1 normally closed contacts



► Technical data

► 1. Functions

Sequence processor for 4 different sequences, each of them with 20 programm steps

► 2. Time ranges

The step length can be set independently for each step in the sequence
 0.1s to 59 min 59.9s (resolution 100ms)
 1s to 99h 59 min 59s (resolution 1s)

► 3. Indicators

Green LED ON: indication of supply voltage
 Yellow LED ON/OFF: indication of relay output
 Red LED ON: alarm or synchronisation impulse or additional output

► 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
 Mounted on DIN-Rail TS 35 in accordance with EN 50022
 Mounting position: any
 Shockproof terminal connection according to VBG 4, IP rating IP20
 Initial torque: max. 1Nm
 Terminal capacity:
 1 x 0.5 to 2.5mm² with/without multicore cable end
 2 x 0.5 to 1.5mm² with/without multicore cable end
 Display: two-lined LCD (alphanumeric)
 16 characters in each line

► 5. Input circuit

Supply voltage:
 110V AC terminals A1-A2 (STEP-T8 110V)
 230V AC terminals A1-A2 (STEP-T8 230V)
 Tolerance:
 110V AC -15% to +10% (STEP-T8 110V)
 230V AC -15% to +10% (STEP-T8 230V)
 Rated frequency: 45 to 65Hz
 Rated consumption:
 110V AC 6VA (STEP-T8 110V)
 230V AC 6VA (STEP-T8 230V)
 Duration of operation: 100%
 Reset time: 100ms

► 6. Output circuit

8 potential free normally open contacts and 1 potential free normally closed contact
 Switching capacity: 690VA (3A / 230V AC)
 Fusing: -
 Mechanical life: 20 x 10⁶ operations
 Electrical life: 2 x 10⁵ operations at resistive load
 Switching frequency: max. 60/min at 100VA resistive load
 max. 6/min at 1000VA resistive load (according to IEC 947-5-1)
 Insulation voltage: 250V AC (according to IEC 664-1)
 Surge voltage: 4kV, overvoltage category III (according IEC 664-1)

► 7. Control input I1

Function: RESET (factory default)
 Connections: potential free, terminals 28-29
 Type: S0 (according to DIN 4364)
 Switching current: 15mA DC
 Tolerance: +10%
 Switching voltage: 24V DC
 Tolerance: +10%
 Frequency: -
 Line length: -
 Control pulse length: DC min. 40ms
 AC -

► 8. Control input I2

Function: TRIGGER (factory default)
 Connections: potential free, terminals 30-31
 Type: S0 (according to DIN 4364)
 Switching current: 15mA DC
 Tolerance: +10%
 Switching voltage: 24V DC
 Tolerance: +10%
 Frequency: -
 Wiring distance: -
 Control pulse length: DC min. 40ms
 AC -

► 9. Control input I3

Function: STOP (factory default)
 Connections: potential free, terminals 32-33
 Type: S0 (according to DIN 4364)
 Switching current: 15mA DC
 Tolerance: +10%
 Switching voltage: 24V DC
 Tolerance: +10%
 Frequency: -
 Wiring distance: -
 Control pulse length: DC min. 40ms
 AC -

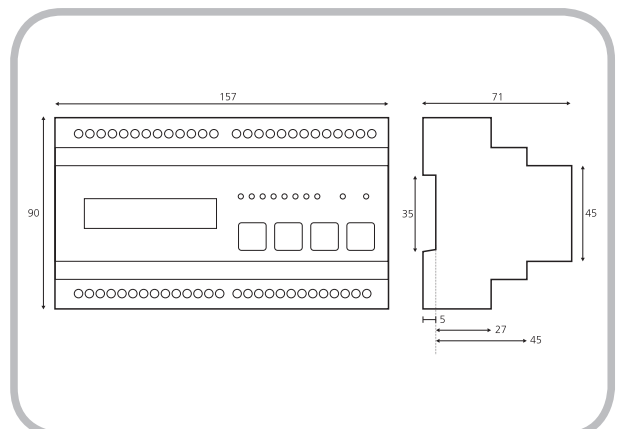
► 10. Accuracy

Base accuracy: ±10ms (+100ms after application of supply voltage)
 Adjustment accuracy: -
 Repetition accuracy: ±5ms
 Voltage influence: -
 Temperature influence: -

► 11. Ambient conditions

Ambient temperature: 0 to +50°C (according to IEC 68-1)
 Storage temperature: -25 to +70°C
 Transport temperature: -25 to +70°C
 Relative humidity: 15% to 85% (according to IEC 721-3-3 Class 3K3)
 Pollution degree: 2, if built in 3 (according to IEC 664-1)

► 12. Dimensions



Functions

The 8 normally open contacts, as well as the alarm or synchronisation contact, are operated according to the internally saved, time-dependent sequences of steps (programmes). The sequences can run once (E) or cyclically (Z).

The individual steps are defined by a programmed time interval and the associated condition of all output relays (output mask). Any changes to the condition of the output relays therefore require the programming of a new step.

The time-controlled processing of the sequence can be influenced by using the 3 input channels. The product is supplied with a factory default setting. However, it is possible to assign one of the following functions to the inputs.

RESET (factory default)

As long as a signal is detected at the RESET input, all relay contacts are open. Once the signal ends, the programme begins with step 0.

TRIGGER (factory default)

If there is a signal at the TRIGGER input after the end of the programme, when set to „Single cycle“, the device restarts. A signal at the TRIGGER input during the programme causes the immediate starting of the next programme step with the output mask programmed for that step.

STOP (factory default)

A signal at the STOP input stops the timing. The condition of the output relay remains unchanged. After the end of the signal, the programme continues with the remaining time for the programme step.

RESTART / STEP BACK

With a signal at the input configured in this way, the programme is reset to the beginning of the currently active programme step. If there is a signal at the STOP input at the same time, a programme step that has already been completed can be selected for each further signal. The output relays only switch to the valid output mask once this signal has ended.

MANUAL

A signal at an input configured in this way stops the programme and switches to an additional saved output mask. Once the signal ends, the programme and expired time is continued with the output mask that was valid before the interruption. A signal at this input during programming triggers a RESET at the end of the signal.

PROGRAMME CHANGE

Alongside the standard programme, three other programmes can be saved. The inputs for a programme change are requested before starting each new sequence of steps (e.g. after a reset or in cyclic operation after each cycle). If this kind of input is active at that moment, the sequence assigned to this input is processed next. If several inputs for different programmes are active, the one with the lowest number is carried out.

The following starting conditions can be selected separately for each program.

MODE 0 (Standard - factory default)

When the supply voltage is applied, or after a power failure, the programme is continued with step 0 of the active programme. If none of the inputs are set for a change of programme and active, the device starts with the first step of programme 0.

MODE 1 (Power failure detection)

After a power failure, the programme is automatically continued with the output mask that was valid and the expired time before the power failure.

If the device was in disconnected position (e.g. after the end of the programme when set to „Single cycle“) when the power failure occurred, this disconnected position is restored. The programme is started by a signal at the TRIGGER or RESET input.

MODE 2 (Start requirement)

After a power failure, START and the step number 0 can alternately be seen in the display. However, all relay outputs remain open and there is no timing. The programme is started by a signal at the TRIGGER or RESET input.

MODE 3 (Power failure detection and start requirement)

After a power failure, with a signal at the TRIGGER input, the programme is automatically continued with the output mask that was valid and the expired time before the power failure. After a successful restart, the normal function at the TRIGGER input is restored.

After a power failure, with a signal at the RESET input, the programme is continued with step 0 of the active programme.

If the device was in disconnected position (e.g. after the end of the programme when set to „Single cycle“) when the power failure occurred, the programme can be started by a signal at the TRIGGER or RESET input.

MODE 4 (Standard with extended Stop-function)

The special function for the STOP input is effective only in case of supply voltage recovery.

If there is already a signal at the STOP input after a power failure, the beginning of any programme step can be selected by a signal at the TRIGGER input (the last programme step is followed by step 00). The output contacts remain open until the selection of the step is confirmed with the end of the signal at the STOP input. The normal function at the STOP input is restored by a signal at the TRIGGER input.

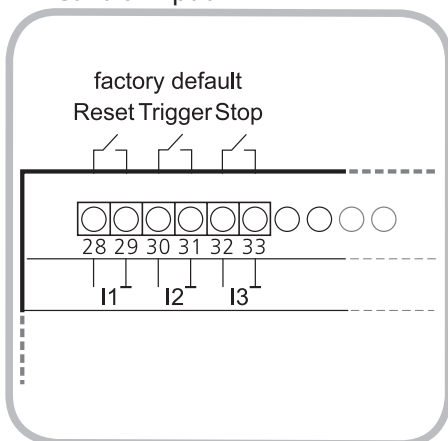
MODE 5 (Power failure detection with extended Stop-function)

MODE 6 (Start requirement with extended Stop-function)

MODE 7 (Power failure detection and start requirement with extended Stop-function)

Connections

Control input



Output

