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CRM-47

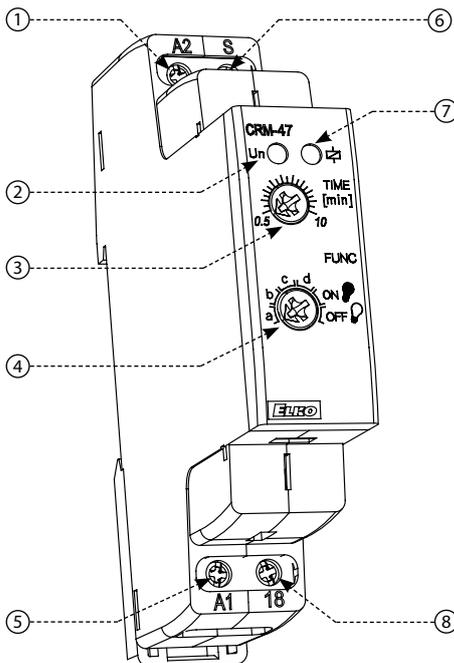
Programmable staircase switch



Characteristics

- Staircase switch enables delayed switching off of lighting on stairs, corridors, entrances, common areas or for delayed running of fans in the toilet or bathroom.
- The programmable staircase switch offers similar application possibilities as the CRM-4, while it is possible to extend the delay for functions a, b repeatedly by briefly pressing the control button (buttons). Each short press multiplies the time set by the potentiometer, i.e. setting the potentiometer to 2 minutes with three presses extends the delay up to 6 minutes. The maximum value of such an extended delay will always be 30 minutes, regardless of the number of presses.
- Long press (>2 s) can switch off the output prematurely and end the ongoing delay.
- Control input with the possibility of loading up to 100 mA load (glow lamp, LED in the button, etc.).
- Function (selectable by potentiometer on the front panel)
 - a – STAIRCASE SWITCH, programmable with signalization
 - b – STAIRCASE SWITCH, programmable without signalization
 - c – MEMORY LATCH (press to switch on, press to switch off)
 - d – MEMORY LATCH with delay
 ON (permanently closed) - e.g. during cleaning, moving
 OFF (permanently open) - e.g. when replacing luminaires.
- ZERO CROSS feature: closes the output contact when the voltage crosses zero.
- Adjustable time delay (t) 0.5 – 10 m.
- Handles surge currents up to 80 A.
- 3-wire or 4-wire connection (input S can be controlled by potential A1 or A2).

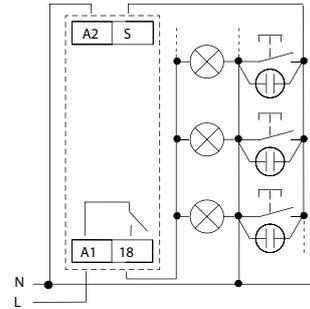
Description



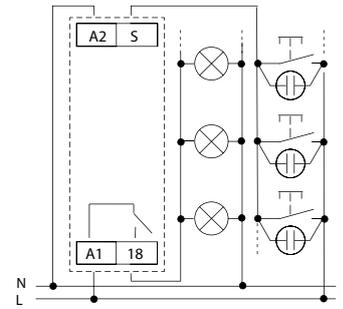
- Supply voltage terminal (A2)
- Supply voltage indication
- Time delay (t) setting
- Function setting
- Supply voltage terminal (A1)
- Control input (S)
- Indication of operating states
- Output contact (18)

Connection

3-wire connection



4-wire connection



Technical parameters

Power supply

| | |
|---------------------------|---------------------|
| Supply terminals: | A1-A2 |
| Supply voltage: | AC 230 V (50-60 Hz) |
| Consumption (max.): | 3 VA/1.6 W |
| Supply voltage tolerance: | -15 %; +10 % |

Time circuit

| | |
|--------------------------|---|
| Number of functions: | 6 |
| Time delay (t): | 0.5 – 10 m (prog. 30 m) |
| Time setting: | rotary potentiometer |
| Time deviation: | 5 % – mechanical adjustment |
| Repeat accuracy: | 0.2 % – set value stability |
| Temperature coefficient: | 0.01 %/°C, reference value = 20 °C (=68 °F) |

Output

| | |
|---------------------------|---|
| Contact type: | 1× closing (AgSnO ₂); closes potential "A1" |
| Current rating: | 16 A/AC1; 1 HP 240 Vac, 1/2HP 120 Vac; PD. B300 |
| Breaking capacity: | 4000 VA/AC1, 384 W/DC1 |
| Inrush current: | 30 A/< 3 s |
| Switching voltage: | 250 V AC/24 V DC |
| Power dissipation (max.): | 1.2 W |
| Mechanical life: | 10.000.000 op. |
| Electrical life (AC1)*: | 100.000 op. |

Controls

| | |
|---------------------------------------|-----------------------------|
| Control voltage: | AC 230 V (50-60 Hz) |
| Consumption (max.): | 4.5 VA/0.3 W |
| Glow lamp connection: | Yes |
| Max. current of connected glow lamps: | 100 mA |
| Control terminals: | A1-S or A2-S |
| Impulse length: | min. 40 ms / max. unlimited |
| Reset time: | max. 320 ms |

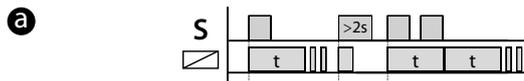
Other information

| | |
|--|--|
| Operating temperature: | -20 .. +55 °C (-4 .. 131 °F) |
| Storage temperature: | -30 .. +70 °C (-22 .. 158 °F) |
| Operating position: | any |
| Mounting: | DIN rail EN 60715 |
| Protection degree: | IP40 front panel / IP20 terminals |
| Overvoltage category: | III. |
| Pollution degree: | 2 |
| Cross-wire section – solid/stranded with ferrule (mm ²): | max. 1× 2.5, 2× 1.5/ max. 1× 2.5 (AWG 14) |
| Dimensions: | 90 × 17.6 × 64 mm |
| Weight: | 55 g |
| Standards: | EN 61812-1 |

*For higher loads and frequent switching, it is recommended to strengthen the relay contact with a power contactor, e.g. the VSxxx contactor.

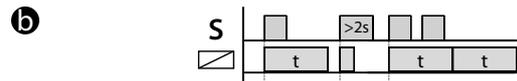
Function

When switching between functions, the red LED flashes.



STAIRCASE SWITCH, programmable with signalization

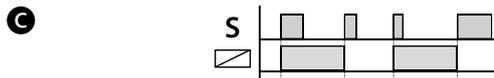
The device times the set time, 30 and 40s before the end of the time by double flashing of the luminaire announces the impending switch-off. You can increase the time interval by briefly pressing the button repeatedly. Suitable for resistive loads (e.g. bulbs).



STAIRCASE SWITCH, programmable without signalization

The device will time the set time without flashing at the end of the interval. You can increase the time interval by briefly pressing the button repeatedly.

The function is suitable for loads that can withstand frequent switching on and off (e.g. energy saving lamps, LED bulbs).



MEMORY LATCH (press to switch on, press to switch off)

By pressing the button the output relay closes and by pressing again the relay opens.

This function is primarily intended for locations where long-term lighting (without timing) is desirable and the unit is controlled from multiple locations (e.g. in office buildings).



MEMORY LATCH with delay

Pressing the button switches the output on/off. If the output is not turned off during the set time "t", it turns off automatically after the timer. This function is suitable for places where lighting is often forgotten (e.g. toilets, corridors, cellars).

Warning

Device is constructed for connection in 1-phase network AC 230 V and must be installed according to norms valid in the state of application. Connection according to the details in this direction. Installation, connection, setting and servicing should be installed by qualified electrician staff only, who has learnt these instructions and functions of the device. This device contains protection against overvoltage peaks and disturbances in supply. For correct function of the protection of this device there must be suitable protections of higher degree (A, B, C) installed in front of them. According to standards elimination of disturbances must be ensured. Before installation the main switch must be in position "OFF" and the device should be de-energized. Don't install the device to sources of excessive electro-magnetic interference. By correct installation ensure ideal air circulation so in case of permanent operation and higher ambient temperature the maximal operating temperature of the device is not exceeded. For installation and setting use screw-driver cca 2 mm. The device is fully-electronic - installation should be carried out according to this fact. Non-problematic function depends also on the way of transportation, storing and handling. In case of any signs of destruction, deformation, non-function or missing part, don't install and claim at your seller it is possible to dismount the device after its lifetime, recycle, or store in protective dump.