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CRM-4

Staircase switch

## Characteristics

- designated for delay OFF function of lights on stairs, corridors, entrances or for delay OFF function of ventilators (WC, bathrooms, etc.)
- device is controlled by button or by several buttons from more places (connected in parallel), buttons can be equipped with glow lamps
- output relay contact $16 \mathrm{~A} / \mathrm{AC1}$ with surge current up to 80 A enables switching of el. bulbs and fluorescent lights.
- operating switch:

AUTO - normal function according to set time
OFF - OFF (e.g. when changing bulbs) permanent
ON - permanent ON (e.g. while cleaning, servicing)

- time range: 0.5-10 min
- time setting by potentiometer
- supply voltage: AC 230 V
- protection against button blocking (e.g. safety - match stacked in a button)
- 1- MODULE, DIN rail mounting


## Description


(4) 1 . Supply voltage indication
2. Function setting
3. Time setting (total time delay is adjusted via trimmer, it is active only in AUTO position. In ON and OFF position will not delay appear).
4. Supply voltage terminals
5. Control input
6. Output indication
7. Output contac

## Symbol



It is possible to connect load between S-A2 terminals (e.g. contactor, light indikator or any other device), without disturbing a correct function of relay (load is energized while the switch is ON).

## Connection



## Operating switch


a) Operating switch in ON position = permanent switch ON of relay contacts. This position is used for cleaning, servicing and detcting of malfunctions connected with load (faulty bulbs)
b) In this position device is set into operating status and operates according to diagram and pre-set time.
c) In OFF position functions and time are out of order and device is in quiescent status. This position is used for bulbs exchange etc.

| Type of load | $\underset{\cos \varphi \geq 0.95}{ }$ <br> AC1 |  |  | AC5a uncompensated | AC5a compensated | $\begin{aligned} & \text { (M) } \\ & \text { HAL }=3 \\ & \text { AC5b } \end{aligned}$ | $3 \mid \xi$ | $\cdots$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mat. contacts $\mathrm{AgSnO}_{2}$ contact 16A | 250V / 16A | 250V / 5A | 250V/3A | 230V / 3A (690VA) | $230 \mathrm{~V} / 3 \mathrm{~A}$ (690VA) to max. input $\mathrm{C}=14 \mathrm{uF}$ | 1000W | x | 250V / 3A | x |
| Type of load |  | $\bar{m}$ <br> AC14 | AC15 |  |  |  | $\begin{aligned} & \square \\ & \mathrm{DC12} \end{aligned}$ | $\bar{m}$ <br> DC13 | $\bar{m}$ <br> DC14 |
| Mat. contacts $\mathrm{AgSnO}_{2}$ contact 16A | x | 250V / 6A | 250V / 6A | 24V/10A | 24V/3A | 24V/2A | 24V/6A | 24V/2A | x |

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| Function: | delay off reacting to control contact switching |
| :--- | :---: |
| Supply terminals: | $\mathrm{A} 1-\mathrm{A} 2$ |
| Supply voltage: | $\mathrm{AC} 230 \mathrm{~V} / 50-60 \mathrm{~Hz}$ |
| Consumption: | AC max. $12 \mathrm{VA} / 1.8 \mathrm{~W}$ |
| Supply voltage tolerance: | $-15 \% ;+10 \%$ |
| Supply indication: | green LED |
| Time ranges: | $0.5-10 \mathrm{~min}$ |
| Time setting: | potentiometer |
| Time deviation: | $10 \%-$ mechanical setting |
| Repeat accuracy: | $5 \%-$ set value stability |
| Temperature coefficient: | $0.05 \% /{ }^{\circ} \mathrm{C}$, at $=20^{\circ} \mathrm{C}\left(0.05 \% /{ }^{\circ} \mathrm{F}\right.$, at $\left.=68{ }^{\circ} \mathrm{F}\right)$ |

## Output

| Changeover contacts: | 1x changeover $\left(\mathrm{AgSnO}_{2}\right)$ |
| :--- | :---: |
| Rated current: | $16 \mathrm{~A} / \mathrm{AC1}$ |
| Switching capacity: | $4000 \mathrm{VA} / \mathrm{AC1}, 384 \mathrm{~W} / \mathrm{DC}$ |
| Inrush current: | $30 \mathrm{~A} /<3 \mathrm{~s}$ |
| Switching voltage: | $250 \mathrm{~V} \mathrm{AC1} \mathrm{/} \mathrm{24} \mathrm{V} \mathrm{DC}$ |
| Output indication: | red LED |
| Mechanical life: | $3 \times 1^{07}$ |
| Electrical life (AC1): | $0.7 \times 10^{5}$ |

## Control

\(\left.$$
\begin{array}{|l|c|}\hline \text { Control voltage: } & \text { AC 230 V } \\
\hline \text { Power on input: } & \text { AC 0.53 VA } \\
\hline \text { Load between S-A2: } & \text { yes } \\
\hline \text { Control. terminals: } & \text { A1-S } \\
\hline \text { Glow-tubes: } & \text { yes } \\
\hline \begin{array}{l}\text { Max. amount of glow lamps } \\
\text { connected to controlling input: }\end{array}
$$ \& max. amount 35 pcs <br>

\hline (measured with glow lamp 0.68 mA / 230 V AC)\end{array}\right]\)| min. 25 ms / max. unlimited |
| :--- |
| Reset time: |

Other information

| Operating temperature: | $-20^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right.$ to $\left.131{ }^{\circ} \mathrm{F}\right)$ |
| :---: | :---: |
| Storage temperature: | $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}\left(-22^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right)$ |
| Electrical strength: | 4 kV (supply - output) |
| Operating position: | any |
| Mounting: | DIN rail EN 60715 |
| Protection degree: | IP40 from front panel / IP20 terminals |
| Overvoltage cathegory: | III. |
| Pollution degree: | 2 |
| Max. cable size ( $\mathrm{mm}^{2}$ ): | solid wire max. $1 \times 2.5$ or $2 \times 1.5$ / <br> with sleeve max. $1 \times 2.5$ (AWG 12) |
| Dimensions: | $90 \times 17.6 \times 64 \mathrm{~mm}\left(3.5^{\prime \prime} \times 0.7^{\prime \prime} \times 2.5^{\prime \prime}\right)$ |
| Weight: | $62 \mathrm{~g}(2.2 \mathrm{oz}$. |
| Standards: | EN 60669-2-3, EN 61010-1 |

## Warning

Device is constructed for connection in 1-phase AC 230 V main alternating current voltage 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 instruction and functions of the device. This device contains protection against overvoltage peaks and disturbancies 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 disturbancies 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.

