## Multifunction time relays with supply voltage disconnection

## Characteristics

- The relay keeps timing according to the set function even after the power supply is disconnected.
- It can be used for delayed switching off of a backup power supply and systems in case of power failure (e.g. emergency lighting, emergency ventilation, electrically and automatically operated doors - lifts, escalators).
- Comfortable and well-arranged time delay (t) setting by rotary switch.
- Adjustable time delay from 0.1 s to 10 m is split into four ranges:
( $0.1 \mathrm{~s}-1 \mathrm{~s} / 1 \mathrm{~s}-10 \mathrm{~s} / 0.1 \mathrm{~m}-1 \mathrm{~m} / 1 \mathrm{~m}-10 \mathrm{~m}$ )
- Power supply outages must be in the order of tens to hundreds of milliseconds.
- Multifunction red LED flashes or shines depending on the operating states.


## Connection



## Technical parameters

|  | CRM-71TO | CRM-72TO |
| :---: | :---: | :---: |
| Power supply |  |  |
| Supply terminals: | A1-A2 |  |
| Supply voltage: | AC/DC $12-240 \mathrm{~V}$ ( $\mathrm{AC} 50-60 \mathrm{~Hz}$ ) |  |
| Consumption (max.): | 1.9 VA/0.9 W |  |
| Supply voltage tolerance: | -15 \%; +10 \% |  |
| Time circuit |  |  |
| Number of features: | 4 |  |
| Time delay (t): | $0.1 \mathrm{~s}-10 \mathrm{~m}$ |  |
| Time setting: | rotary switch and potentiometer |  |
| Time deviation: | $5 \%$ - mechanical setting |  |
| Repeat accuracy: | 0.2 \% - set value stability |  |
| Temperature coefficient: | $0.01 \% /{ }^{\circ} \mathrm{C}$, at $=20{ }^{\circ} \mathrm{C}\left(0.01 \% /{ }^{\circ} \mathrm{F}\right.$, at $\left.=68{ }^{\circ} \mathrm{F}\right)$ |  |
| Output |  |  |
| Contact type: | $1 \times$ changeover $\left(\mathrm{AgSnO}_{2}\right)$ | $2 \times$ changeover (AgNi) |
| Current rating: | 16 A/AC* | 8 A/AC1** |
| Breaking capacity: | 4000 VA/AC1, 384 W/DC1 | 2000 VA/AC1, 192 W/DC1 |
| Inrush current: | $20 \mathrm{~A} /<3 \mathrm{~s}$ | $10 \mathrm{~A} /<3 \mathrm{~s}$ |
| Switching voltage: | 250V AC/24V DC |  |
| Power dissipation (max.): | 1.2 W |  |
| Mechanical life: | 2.000.000 ops. |  |
| Electrical life (AC1): | 50.000 ops. | 200.000 ops. |
| Other specifications |  |  |
| Operating temperature: | $-20 . .+55^{\circ} \mathrm{C}\left(-4 . .131{ }^{\circ} \mathrm{F}\right)$ |  |
| Storage temperature: | $-30 . .+70^{\circ} \mathrm{C}\left(-22 . .158^{\circ} \mathrm{F}\right)$ |  |
| Dielectric strength: $\quad \square$ |  |  |
| supply - output 1 | AC 4 kV | AC 3.5 kV |
| supply - output 2 | - | AC 3.5 kV |
| output 1 - output 2 | - | AC 3.5 kV |
| 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/ <br> stranded with ferrule $\left(\mathrm{mm}^{2}\right)$ : | max. $1 \times 2.5,2 \times 1.5 /$ max. $1 \times 2.5$ (AWG 14) |  |
| Dimensions: | $90 \times 17.6 \times 64 \mathrm{~mm}$ |  |
| Weight: | 63 g | 69 g |
| Standards: | EN 61812-1 |  |

* 1 HP|240 Vac, 1/2 HP|120 Vac; PD. B300
** 1/2 HP|240 Vac, 1/3 HP|120 Vac; PD. B300

(b) TRUE SINGLE SHOT


TRUE INTERVAL ON

d TRUE INTERVAL ON/OFF


## 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 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 ( $\mathrm{A}, \mathrm{B}, \mathrm{C}$ ) 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 it is possible to dismount the device after its lifetime, recycle, or store in protective dump.

