## Time switch ASTROCLOCK-2

### Description

The ASTROCLOCK-2 is a time switch designed to control luminous loads in function of dawn and dusk times. It includes a program that automatically adjusts the dawn lightingup and dusk switching-off times, without sensors and any need for maintenance. The geographic position location is set up by entering geographic coordinates of location where operating or with selecting nearest city from built in list. This product successfully replaces twilight switches with dusk(light) sensor (photo cell).

Its small size of only two modules makes it ideal for installation on distribution boards with little available space. The unit includes 40 memory spaces in two independent circuits that can be programmed in an astronomic or with fixed time operation or combination. Advantages

- 2 module DIN rail mounting.
- Supply voltage: 230V 50/60 Hz.
- Two independent programmable
- output contacts 2x16A (AC1). 40 daily and weekly programs with astronomical or fixed-time manoeuvres.
- Daily astronomical adjustment with offset possibility(±delay).
- Option of automatic switching between summer and winter time.
- Backup power supply: Repaceable

- CR2032 battery(included).
- High-contrast backlit display.
- Menu languages: ENG, SLO, HR/SRB/ BiH, POL, RUS.
- Countries with biggest cities directly supported: Poland, Slovenia, Estonia, Lithuania, Latvia, Russia, Ukraine, Bosnia and Herzegovina, Croatia, Macedonia, Serbia.
- Other cities and countries supported through entering geographic coordinates (zone latitude and longitude).

### Time switch ASTROCLOCK-2

| Туре         | In  | Code No.  | Weight | Packaging |  |
|--------------|-----|-----------|--------|-----------|--|
|              | [A] |           | [g]    | [pcs]     |  |
| ASTROCLOCK-2 | 16  | 002472051 | 166    | 1/120     |  |

# Digital time switch ETICLOCK-R1

### Description

ETICLOCK-R1 is a digital time switch designed to control an electrical installation. Different types of operations: ON and OFF at a set time, shortterm operations or pulses (1 to 59 seconds) and repetitive cycles (1 to 59 seconds or 1 minute to 23 hours and 59 minutes) applied to one channel (C1). It includes a series of additional functions such as: automatic DST changes, 4 holiday periods, adjustable screen brightness. Menus can be displayed in several languages (ENG, SLO, HR/SRB/BiH, POL, RUS). One voltage free changeover output (channel) allows programming of up 40 operations (programs).

#### Advantages:

- Rated voltage and frequency: As indicated on the device (230 V AC 50-60Hz)
- Voltage free programmable changeover output contact: 1x16 (10) A / 250 V AC
- Automatic DST change by country can be disabled
- On-screen operating schedule
- Display screen: Back-lit LCD, Menu languages: English, Slovenian, HR/SRB/ BiH, Polish, Russian.
- Memory spaces: 40 programs (operations)
- Power reserve:

- 10 years (with 4 years replaceable CR2032 battery and no network connection)
- 48 h (without battery or empty and no network connection)
- Types of operations: ON/OFF, PULSE (1 to 59 sec.) and CYCLES (1 to 59 sec. or 1 min to 23h and 59 min)
- Size: 2 DIN modules (35 mm)

| Digital time switch ETICLOCK-R1 |     |           |        |           |  |  |
|---------------------------------|-----|-----------|--------|-----------|--|--|
| Туре                            | In  | Code No.  | Weight | Packaging |  |  |
|                                 | [A] |           | [g]    | [pcs]     |  |  |
| ETICLOCK-R1                     | 16  | 002472053 | 136    | 1/10      |  |  |



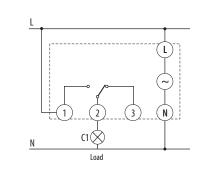


# Digital time switch ETICLOCK-R1

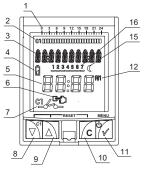
### **Technical data**

|   | ETICLOCK-R1  |  |
|---|--|--|
| Rated voltage and frequency<br>As indicated on the device | (230 V~ 50-60Hz)   |  |
| Breaking capacity   | μ 1x16 (10) Α / 250 V AC   |  |
| Own consumption   | 16 VA (1.3 W) max  |  |
| Contact   | AgSnO2 switched  |  |
| Display screen  | LCD  |  |
| Running accuracy  | $\pm$ 1 s / day at 23 °C   |  |
| Accuracy variation with temperature                       | $\pm0.15$ s / °C / 24 h  |  |
| Power reserve   | 4 years (with battery and no<br>network connection)                      |  |
|   | 48 h (no battery and no network connection)                              |  |
| Memory spaces   | 40   |  |
| No. of channels   | 1  |  |
| Types of operations                                       | ON/OFF, PULSE (1 59 sec.) &<br>CYCLES (1 59 sec. / 1 min 23h,<br>59 min) |  |
| Operating temperature                                     | -10 °C +45 °C  |  |
| Transport and storage temperature                         | -20 °C +60 °C  |  |
| Pollution degree  | 2  |  |
| Protection level  | IP 20 (EN60529)  |  |
| Protection class  | II under correct mounting conditions                                     |  |
| Transient impulse voltage                                 | 2.5 kV   |  |
| Temperature for the ball test                             | + 80 °C (21.2.5)   |  |
| Keyboard access cover                                     | Sealable   |  |
| Connection  | With screw terminal for wire cross section of up to 4mm <sup>2</sup>     |  |
|   | Section of up to 4mm   |  |
| Battery   | CR2032 - 3 V - 220 mAh   |  |

### Connection



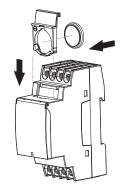
### **Controlling elements**



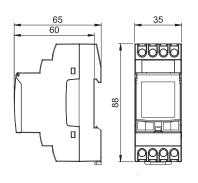


- 1. Time scale 2. Schedules 3. Text line 4. Low-battery symbol 5. Hour / Date 6. C1 manual operation (blinking)/ C1 permanent manual (fixed) 7. C1 relay status symbol 8. Scroll down / C1 manual operation 9. Go un

- Scroll down / C1 manual operation
  Go up
  Cancel option / Go back
  Accept option / Enter the menu / Switch on the device without power
  12 H / 24 H
  Days of the week



### Dimensions



| Maximum recommended loads  |                    |           |  |  |  |  |
|----------------------------|--------------------|-----------|--|--|--|--|
| Load                       | Designation        | Max. load |  |  |  |  |
| Incandescent               | Ø                  | 3000 W    |  |  |  |  |
| Fluorescent                | t D                | 1200 VA   |  |  |  |  |
| Low voltage halogen (12 V) | Ä                  | 2000 VA   |  |  |  |  |
| Halogen (230 V)            | <del>ф(нн)</del> ф | 3000 W    |  |  |  |  |
| Low consumption lamps      |                    | 600 VA    |  |  |  |  |
| Downlights                 |                    | 400 VA    |  |  |  |  |
| LED                        | LED                | 90 VA     |  |  |  |  |