

ASTRO 1-GPS Astronomical Time Switch with internal GPS

Wide Range Power Supply
85 - 265 VAC(50/60Hz)/DC



FUNCTION

ASTRO1-GPS is designed to turn on and turn off the light in times of sunset and sunrise, depending on the geographical coordinates of the location, time of year and real time. Data collection from satellites is provided by module integrated GPS antenna. It obtains coordinates, real time and date and calculates the sunset and sunrise time automatically.

Switch on-off time delay (Ton-Toff) manual adjustment is possible in the range of 0-60 min

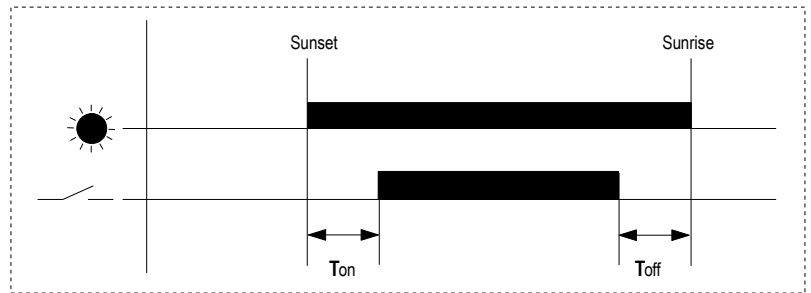
- T** ON: 0 - 60 min (Time delay after sunset)
- T** OFF: 0 - 60 min (Time delay before sunrise)

OPERATING

When Astro1-GPS is energized for the first time, the GPS module starts searching satellites and the GPS led located on front panel starts to flash. When the appropriate satellites are found (minimum 3), the GPS led turns on flashing continuously. Time required for the first GPS attempt is 10-15 mins as time switch is checking all the available satellites obtaining astronomical data precisely. After electric power interruption (max. 12 h) time of reconnection attempt is up to 3 mins. Coordinates, date and time information from satellites are read by the microprocessor from the GPS module; sunrise and sunset time is calculated correctly.

Using two potentiometers on the front panel (Ton - Toff), the user can adjust sunrise and sunset time delay up to 60 mins.

Astro1-GPS has a button for testing the lightings under maintenance. If the button is pressed during longer time (3 seconds), the device switches to manual mode and Manual led turns on. In this mode, the relay output contact position changes each time the button is pressed. Pressing button during longer time again (3 seconds) when the test is finished, the device switches back to automatic mode and the Auto LED turns on.



www.kael.com.tr
info@kael.com.tr
Made in TURKEY

LED DISPLAY MODES

- ON Led** ----- device operating mode
- GPS Led** ----- GPS operating mode
 - * flashing - device is searching satellites and obtaining data
 - * turned on continuously - satellites have been found, data have been collected, sunrise/sunset time has been calculated
- AUTO Led** ----- automatic operating mode when coordinates, date and time information obtained; sunrise and sunset time calculated
- MANUAL Led** --- manual mode for lighting testing
- OUT Led** ----- contact position

ADVANTAGES

- Wide range of power supply (85-265V ac / dc)
- Checking all available satellites for precise data capture
- Astronomical data is updated automatically as a result no time loss occurred
- No need for manual astronomical data adjustments
- Dependence on batteries has been eliminated as device collects all the necessary data from the satellite, as a result no batteries to be replaced and no battery related extra costs to be handled.
- As it does not require to change batteries or update settings so transportation cost will not occur to users.
- In case of electric power interruption device works at sleep mode for up to 12 hours due to supercap used
- Shortest delay time – 1 min
- Max. relay contact switching cycles with 5A/275 V - 100.000
- Slim line device module occupying less space in the panel
- User friendly.



WARNING:
This device is suitable for outdoor applications use with into polyester panel. Device may not find satellites in metal cabinets indoor applications.

Technical data

- Operational voltage(Un)**
- A1-A2** :85-265 Vac (50/60Hz)
- Frequency** : 50/60 Hz.
- Contact current** : Max.5 A / 250 Vac
- Power Consumption** : < 4 VA
- Protection Class** : IP20
- Terminal Protection Class** : IP00
- Operation Temperature:** - 20 °C... + 60 °C
- Installation** : on the DIN rail

Dimensions : 18x90x65 mm

