

## Description



- Digital time switch with yearly and astronomical time program
- Time synchronisation via connection of external DCF or GPS antennas, additional positioning for astronomical program with GPS
- 2 channels
- 2 external inputs
  - Connectable sensors (external selector switch, sequence timer)
  - Connectable switches (ON or OFF permanent switching)
- Extension module can be connected
- Memory card OBELISK top2 included in delivery
- DuoFix spring terminals
  - For 2 conductors each
  - Wire or strand (with or without wire end sleeve)
  - Wire diameter: 0.5 - 2.5 mm<sup>2</sup>
  - Button for releasing plug-in connection
- Text-oriented user guidance in display
  - Preset date and time
  - fully operable without mains connection
- 800 memory locations
- Interface for OBELISK top2 memory card (PC programming)
  - 2. insertable switching program
  - Copying programs
  - Storing programs
- 8 year power reserve (lithium battery)
- Zero-cross switching for leay-saving switching and high lamp loads (not with 24 V devices)
- Automatic summer/winter time changeover
  - can be deactivated
  - Date rule options are already stored for Europe, the USA and other countries
  - own date rule options or changeover around set dates are available
- ON-OFF switching times
- Pulse program
- Cycle program
- Extensive yearly clock functions
  - Basic weekly program and 14 different weekly programs with priority levels and date ranges
  - Permanent ON / permanent OFF with highest priority via date range program option
  - fixed and variable public holidays, public holidays dependent on Easter, day and date ranges with serial pattern
  - Public holiday database for Germany including all Federal states, Switzerland, France etc.
  - Program simulation on clock display
  - Graphic program simulation with 12 month overview for all channels on PC
- Astronomical time switch function (automatic calculation of sunrise and sunset times for the whole year)
  - Offset for adjusting of sunrise and sunset times
  - Position data via coordinates or country/city lists can be programmed
  - Optional production of own city list (favourites) and a table with own astronomical times on PC
  - Fixed ON-OFF switching times can be programmed (e.g. night time interruption)
  - Simulation of astronomical switching times (calculated astronomical times and programmed ON/OFF switching times) for the whole year
  - various astronomical setting options (evening ON - mornings OFF or evenings OFF - mornings ON, astronomical pulse)
- Switching preselection
- Permanent switching ON/OFF
- Count-down timer
- Integrated operating hour counter

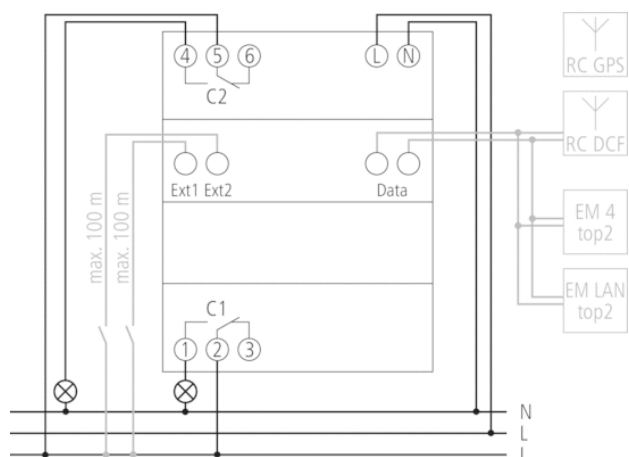
- Reset option
- Service function for monitoring maintenance intervals
- Holiday program
- 2 random programs
- Display back light (can be turned off)
- PIN coding

### Technical data

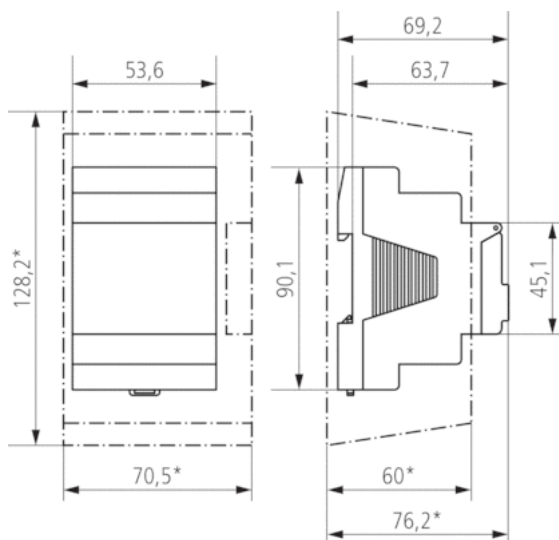
Operating voltage	110 – 240 V AC
Frequency	50 – 60 Hz
Width	3 modules
Installation type	DIN rail
Type of contact	Changeover contact
Switching output	Phase-independent
Opening width	< 3 mm
Program	Yearly program, Astronomical program
Program functions	ON-OFF, Pulse, Cycle
Number of channels	2
External inputs	2
Number of memory locations	800
Power reserve	8 years
Switching capacity at 250 V AC, $\cos \varphi = 1$	16 A
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	10 A
Incandescent/halogen lamp load 230 V	2600 W
Incandescent/halogen lamp load 120 V	1300 W
Energy saving lamps 230 V	37 x 7 W, 30 x 11 W, 26 x 15 W, 26 x 20 W, 11 x 23 W
Energy saving lamps 120 V	18 x 7 W, 15 x 11 W, 13 x 15 W, 13 x 20 W, 11 x 23 W
LED lamp < 2 W	50 W
LED lamp 2-8 W	180 W
LED lamp > 8 W	200 W
Switching capacity min.	ca. 10 mA
Shortest switching times	1 s
Time accuracy at 25 °C	$\leq \pm 0,5$ s/day (quartz) or DCF77/GPS
Time basis	Quartz/DCF77/GPS
Stand-by consumption	~1,2 W
Capacity loss max.	2,2 W
Memory card supplied	<input type="checkbox"/>
Type of connection	DuoFix spring terminals
Externe Antenne anschließbar	<input type="checkbox"/>
Display	LCD
Keyboards	4 touch buttons
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic
Type of protection	IP 20
Protection class	II according to EN 60 730-1
Voltage	110-240 V AC

Ambient temperature	-30 °C ... +45 °C
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### Connection example



### Scale drawings



### Accessories

#### Antenna top2 RC-GPS

- Article number: 9070610  
[Details ▶ www.theben.de](http://www.theben.de)



#### EM 4 top2

- Article number: 6490104  
[Details ▶ www.theben.de](http://www.theben.de)



#### EM LAN top2

- Article number: 6490900  
[Details ▶ www.theben.de](http://www.theben.de)



#### Antenna top2 RC-DCF

- Article number: 9070410  
[Details ▶ www.theben.de](http://www.theben.de)



#### Wall mounting kit 52,5 mm

- Article number: 9070050  
[Details ▶ www.theben.de](http://www.theben.de)



#### PC set OBELISK top2/3

- Article number: 9070409  
[Details ▶ www.theben.de](http://www.theben.de)



Article number: 6420300

#### Memory card OBELISK top2

- Article number: 9070404  
Details ▶ [www.theben.de](http://www.theben.de)



#### Front panel kit

- Article number: 9070001  
Details ▶ [www.theben.de](http://www.theben.de)

