Connection diagram
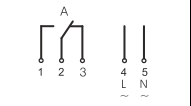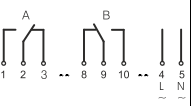
1 channel

2 channels

1. Safety instructions

⚠ The installation and assembly of electrical equipment must be only carried out only by a skilled Person! Otherwise fire danger or danger of an electric shock exists!

⚠ Connect the supply voltage/frequency as stated on the product label!

⚠ Warranty void if housing opened by unauthorised person!

⚠ The electronic circuit is protected against a wide range of external influences. Incorrect operating may occur if external influences exceed certain limits

2. Initial operation

■ The time switch is delivered in sleep-mode, the display is switched off.
■ Press OK/M-button to wake it up.
■ The current date and time is already programmed and European daylight savings time is activated.
■ Select the desired language by pressing -+- buttons and confirm it by pressing OK. *(Remark: By pressing M you move one step backwards from the current position)*
■ If required, date, time and daylight savings time mode can be adjusted also by pressing -+-buttons and a subsequent confirmation with OK.
■ When using the astro function it is obligatory to enter the geographical position of the place of the installation of the device. Choose with -+-buttons between „Zone" (predefined zip codes) and „Coordinates" (longitude and latitude). Confirm your choice again with OK. (The easiest way is choosing a predefined zip code within the „Zone"-menu.)
■ Enter the nearest zip code or the geographical coordinates with -+-buttons and confirm with OK.
■ Finally, you can activate the Astro-program for the whole week (no offset) by confirming "Astro preprogrammed"! If you choose "Astro not preprogrammed" you can individually program the Astro-function later in the programming menu. To complete the initial operations confirm your choice with the OK button.

3. Technical data

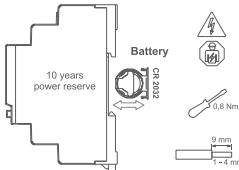|	
Supply voltage	230 V, 50-60 Hz
Power consumption	0,2-1,0W (depending on the switching status)
Contact material	AgSnO2
Type of protection	IP 20 to DIN EN 60529
Permitted ambiet temperature	-30°…+55°
Mode of oeration	1 BSTU
Degree of contamination	2
Rated surge voltage	4 kV
Standard	DIN EN 60730-1/DIN EN 60730-2-7
CFL, LED	Ideal for modern lamps

4. Service

Sangamo Limited
Industrial Estate, Port Glasgow,
Renfrewshire, PA14 5XG
Tel: 01475 745131 Fax: 01475 600370
Email: enquiries@sangamo.co.uk
Web: www.sangamo.co.uk

5. Intended use

DIN-rail mounting product:
The device fits for the particular use of the following tasks: Illumination of private and industrial areas, street and shop-window lightening, regulation of air conditioning, flushing, motors, pumps, plants and machinery as well as to simulate presence etc.
Operate the device in a dry room only! The installation must be in accordance with the instruction manual. The device is not qualified for security relevant tasks such as emergency doors, fire protection equipment

6. Battery

10 years power reserve

Battery CR 2032

0,8 Nm

9 mm
1 - 4 mm

7. Permanent

■ Permanent ON / OFF

24.12. - 26.12.
08:00 - 12:00
⏱ Perm OffA

8. Key function

M ←	1. To access the Enter-mode from the automatic-mode. 2. To revert to the beginning of the current (sub-) menu.
– +	1. To adjust the flashing digit. 2. To scroll through a choice
A B	1. Automatic-mode: To switch the channel ON or OFF until the next programming step occurs. 2. Automatic-mode: A push longer than 3 sec. = Permanent switching status.
OK/M →|	1. To activate the time switch when operated without power supply. 2. To confirm the selection or the entered data.

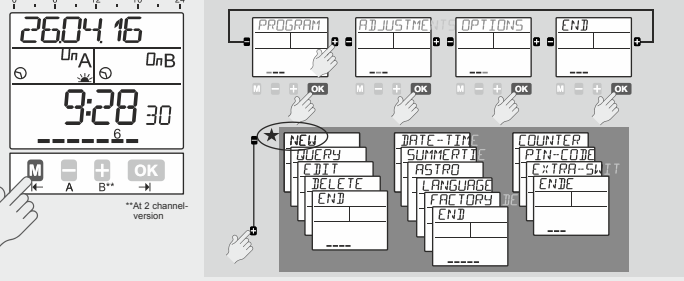## 9. Handling advice

■ The time switch is programmable without external power supply after pressing the OK / M -button.
■ To revert one step or one level back while in the Enter-Mode press →|
■ After completion of a (sub-) menu confirming end will return the device into the automatic-mode.
■ With -+- the choice changes from **end** to **continue**. By confirming **continue** the time switch returns to the beginning of the current (sub-) menu.
■ When confirming end before completion, the time switch returns to the automatic-mode without saving the entered data.

10. Additional adjustments

Menu	Main menu	Application
Program query	Program	To query the programming steps and remaining memory locations
Program delete	Program	Deletion of switching time(s). The program for all channels, single channels and single programming steps within on channel can be deleted.
Date-Time	Adjustment	Adjustment of date and time
Summertime	Adjustment	Adjustment of the daylight saving time mode (ON/OFF)
Language	Adjustment	Choice of languages
Factory Defaults	Adjustment	Reset to the state of delivery.
Counter	Options	Displays the hour counter and pulse counter for each channel and the time switch itself.
PIN-Code	Options	The time switch can be locked with a 4-digit PIN-Code. The code can be adjusted, activated and deactivated. If you have forgotten the Code please call customer service.

11. Menu overview

26.04.16
UnA   OnB
9:28 30

M← A – + B** OK

**At 2 channel-version

PROGRAM — ADJUSTME — OPTIONS — END

NEW / QUERY / EDIT / DELETE / END

DATE-TIM / SUMMERTI / ASTRO / LANGUAGE / FACTORY / END

COUNTER / PIN-CODE / EXTRA-SWIT / ENDE

12. Symbol legend

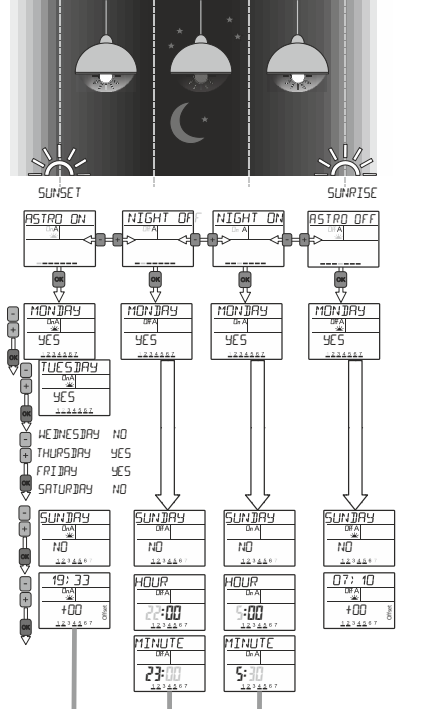|	
On	Channel is switched ON
Off	Channel is switched OFF
⏱Perm	For the current date the "holiday program" / "permanent by date" is activated
⏱	Standard programming step
✋	Current state is based on a manual over-ride. The state will be cancelled with the next programming step.
✋Perm	Current state is based on a manual override. The state is permanent until terminated manual.
1234567	Days of the week Monday, Tuesday, ... Sunday; The underscores indicate if the program is active for the days above.
☀	Astro function: Current state is based on a sunrise or sunset taking into account an optionally adjusted Offset.
🔒	The time switch is locked; to unlock the device the PIN has to be entered.

13. New program

★ NEW → CHANNEL A / CHANNEL B →

ASTROPROGRAM

SUNSET   SUNRISE

ASTRO ON — NIGHT OF — NIGHT ON — ASTRO OFF

MONDAY YES — MONDAY YES — MONDAY YES — MONDAY YES

TUESDAY YES

WEDNESDAY NO
THURSDAY YES
FRIDAY YES
SATURDAY NO

SUNDAY NO — SUNDAY NO — SUNDAY NO — SUNDAY NO

19:33 — (—) — (—) — 07:10
+00 Offset — HOUR 22:00 — HOUR 5:00 — +00 Offset

MINUTE 23:00 — MINUTE 5:30

ASTROPROGRAM:
The astro function allows you to switch the whole year trough in relation to sunset and sunrise, e.g. for illumination purposes (astro-ON with sunset and astro-OFF with sunrise)
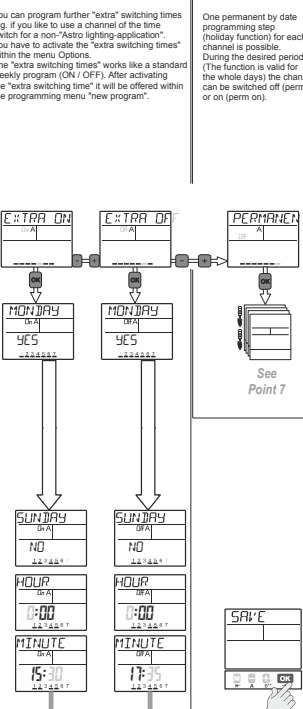
BLOCK PROGRAMMING:
Activation or deactivation of the weekday (1...7) on which the switching time should happen. Withe the +/- keys you can change from avtivate "yes" to deactivate "no". Confirm ech day with OK.

OFFSET:
While programming an astro program step there will be no daytime (hh:ss) suggested. Instead of this you have the possibility to enter an offset. E.G. if you like to switch on the light 20 minutes before sunset you have to enter an offset of minus 20 minutes while programming astro ON.
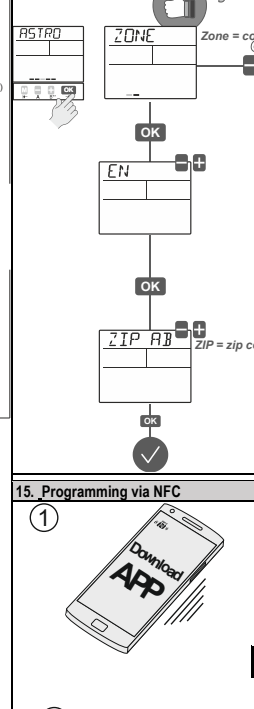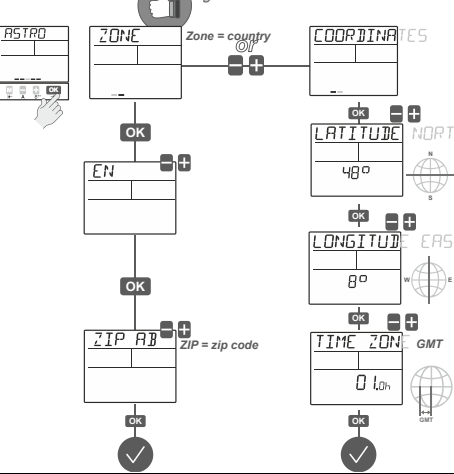
EXTRAPROGRAM
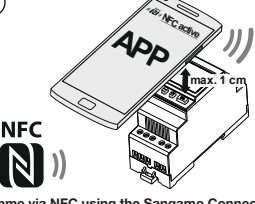You can program further "extra" switching times e.g. if you like to switch a channel of the time switch for a non-"Astro lighting-application". You have to activate the "extra switching times" within the menu Options. The "extra switching times" works like a standard weekly program (ON / OFF). After activating the "extra switching time" it will be offered within the programming menu "new program".

EXTRA ON — EXTRA OF

MONDAY YES — MONDAY YES

SUNDAY NO — SUNDAY NO

HOUR 0:00 — HOUR 0:00

MINUTE 15:30 — MINUTE 17:35

PERMANENT
One permanent by date programming step (holiday function) for each channel is possible. During the desired period the function is valid for the whole days) the channel can be switched off (perm off) or on (perm on).

PERMANENT

See Point 7

SAVE

14. Astro adjustment

👆 *easy to find*

ASTRO → ZONE *Zone = country* → COORDINATES

OK

EN

ZIP AB *ZIP = zip code*

✓

LATITUDE NORTH 48°

LONGITUDE EAST 8°

TIME ZON GMT 01.0h

✓

15. Programming via NFC

① Download APP
GET IT ON Google Play

② APP NFC active max. 1 cm

NFC

Programme via NFC using the Sangamo Connect android app

Sangamo Limited
Industrial Estate, Port Glasgow,
Renfrewshire, PA14 5XG
Tel: **01475 745131** Fax: **01475 600370**
Email: **enquiries@sangamo.co.uk**
Web: **www.sangamo.co.uk**

NFC