Product Information

DCM Power supply and control unit 600 mA TK SV STG 600 REG

Safety instructions

! Assembly, installation, and commissioning must only be carried out by a qualified electrician!

For work on systems with 230 V AC mains current the safety requirements of DIN VDE 0100 must be observed.

When installing DCM BUS systems the general safety rules for telecommunication systems in accordance with VDE 0800 must be observed:

- separate cabling for high and low voltage lines
- minimum distance of 10 cm for joint cabling arrangements,
- use of separators between high and low voltage lines in joint cable ducts,
- use of standard telecommunication cables, e. g. J-Y (St) Y with 0.8 mm² cross section

! Suitable lightning prediction must ensure that a voltage of 32 V DC will not be exceeded at the DCM BUS wires a and b.

DCM = Door Communication Management

Application / Brief description

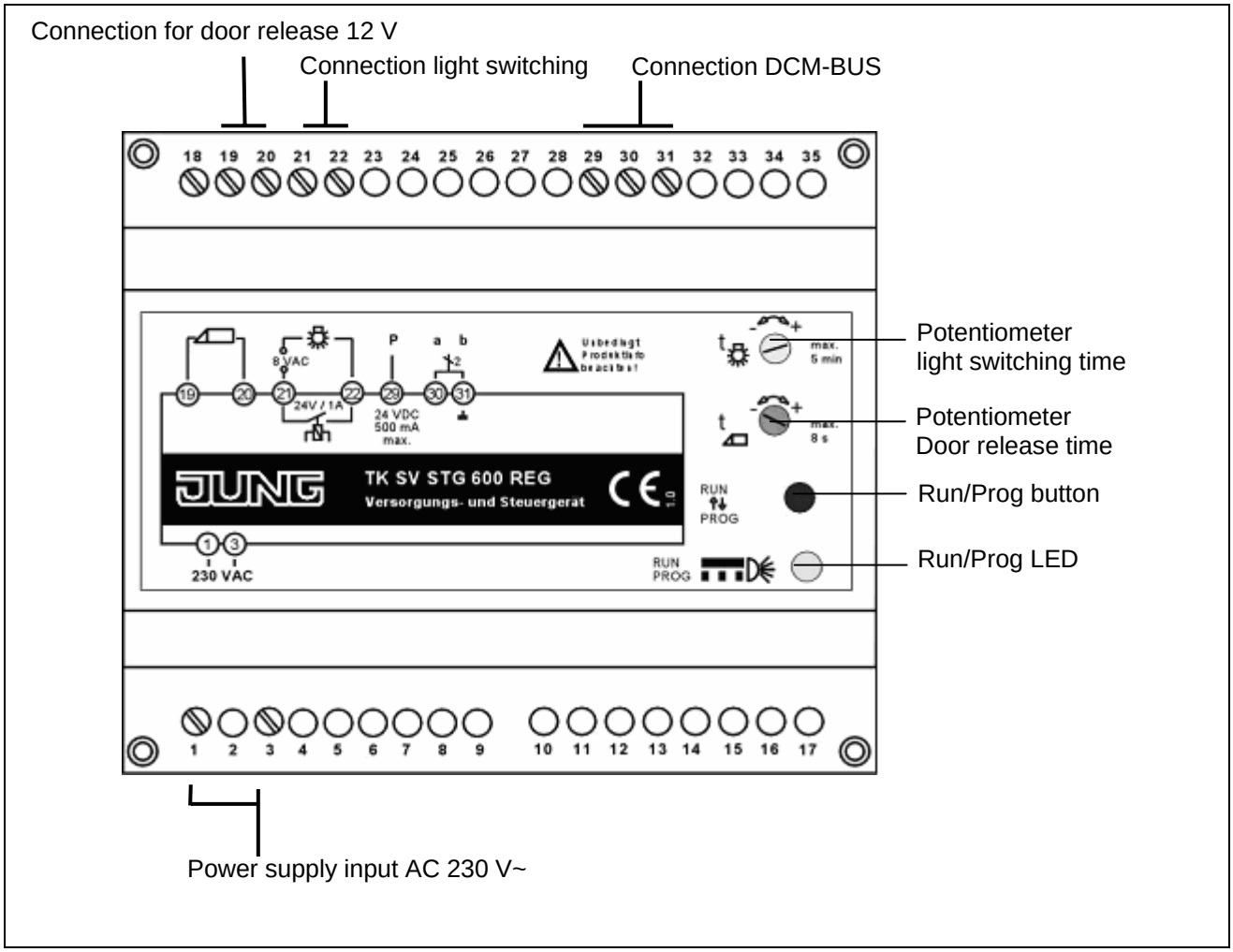
Application

- power supply and control unit for door communication systems
- light switching with floating relay contact
- power supply for door release

Brief description

- power supply for DCM BUS, short circuit protected
- switching between operation and programming mode
- status/programming LED
- floating relay contact for light switching (make contact, 24 V DC / 1 A)
- light switching time adjustable
- internal door release relay with power supply AC 12 V
- door release time from 0.8 s up to 8 s manually adjustable
- light switching function
- for rail mounting installation into distribution boards according to DIN EN 50022

Device overview

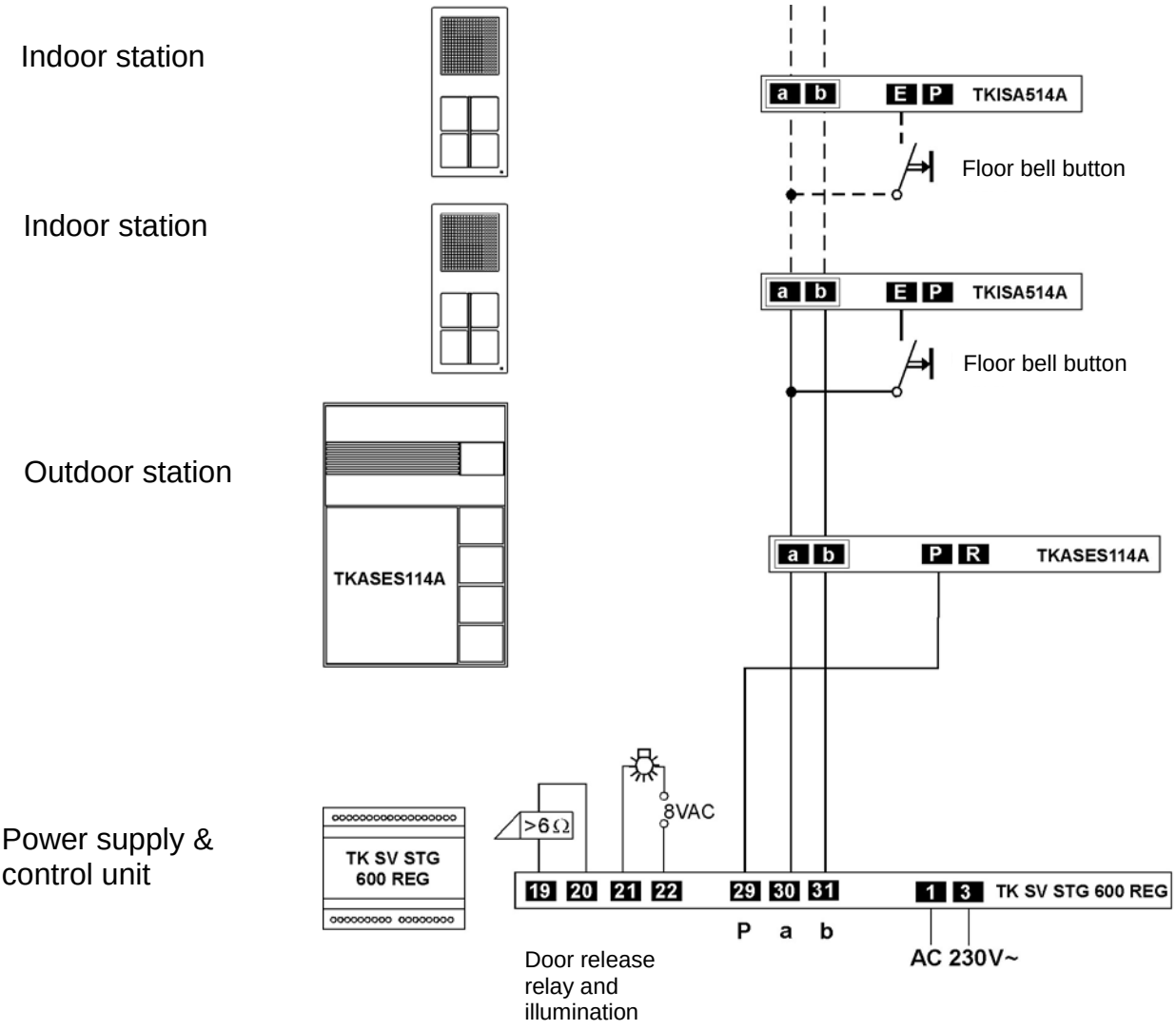


Wiring and installation

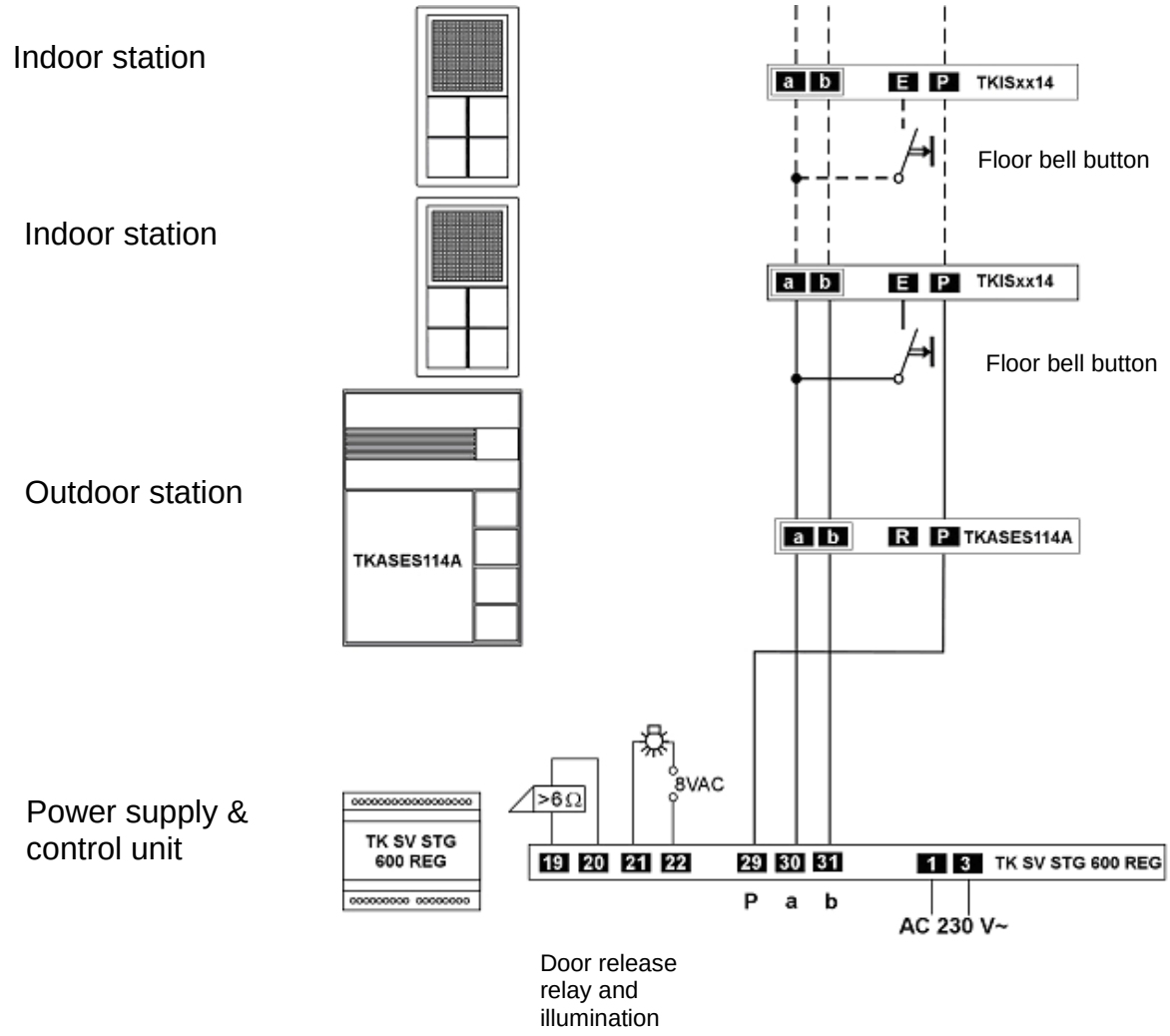
Wiring example

! The 2-wire installation is exclusively applicable for a limited amount of standard indoor stations without illumination.

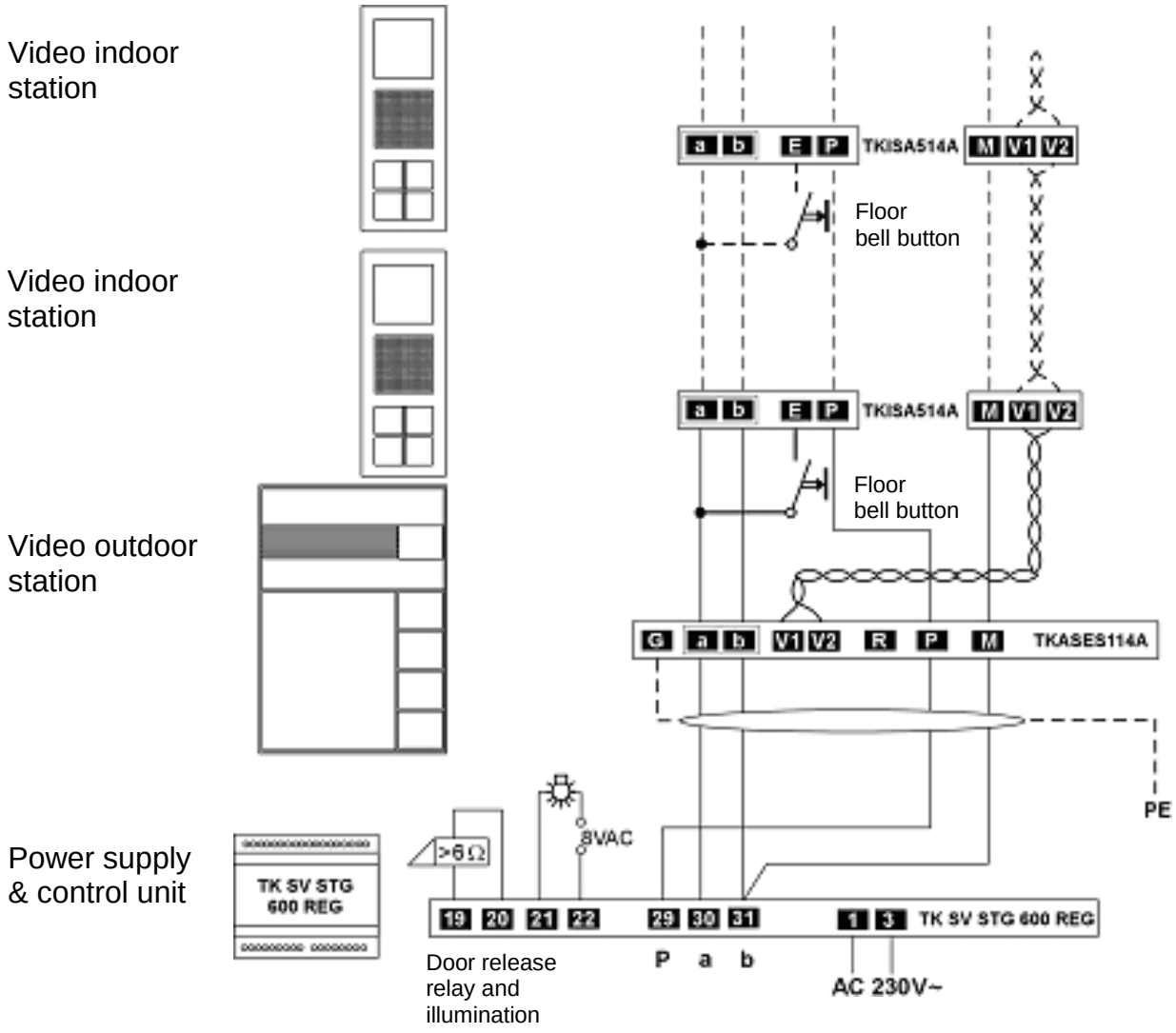
2-wire technique
Please observe cable length and loop resistance.



3-wire technique
Please observe cable length and loop resistance.

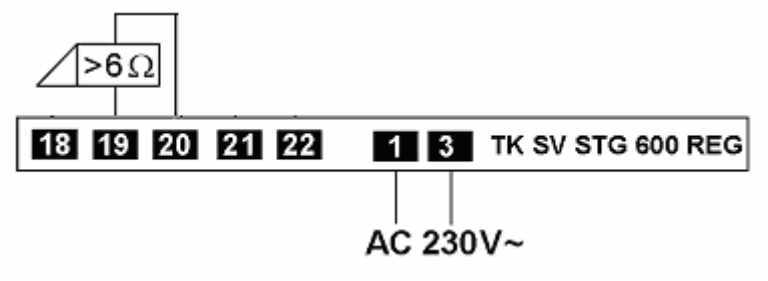


6-wire technique, Video
Please observe cable length and loop resistance.



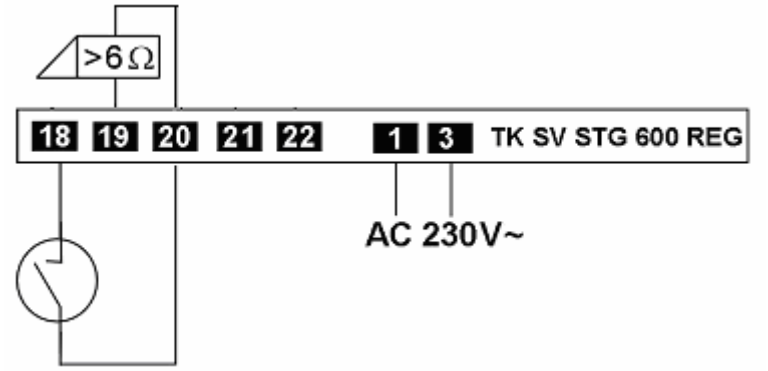
Wiring example for door release

Direct connected door release AC 12 V~.
Door release time from 0.8 s up to 8 s manually adjustable.



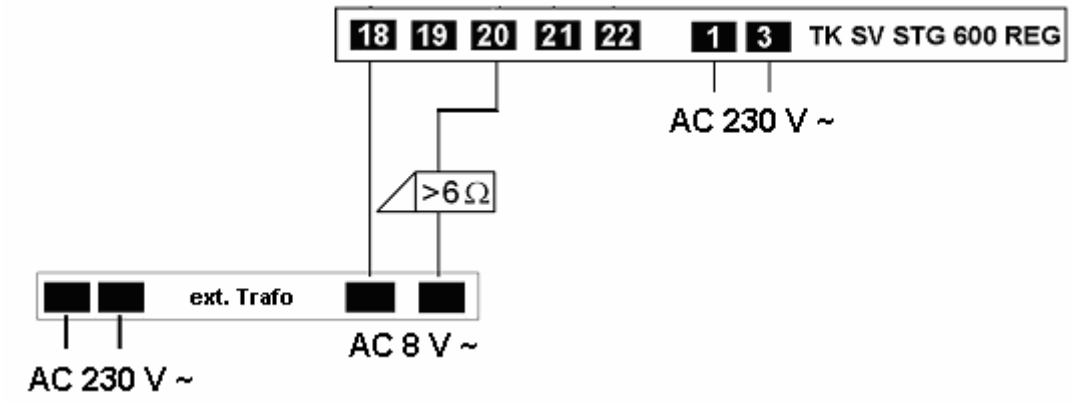
Wiring example with door release for postman key switch

The door release can be activated with an additional key switch. The door release remains activated as long as the switch contact is closed. Please install the key switch only as shown in the wiring example.



Wiring example with door release with external power supply

Door release systems with an external power supply and an alternative low voltage (AC or DC) shall be installed only as shown in the wiring example.
The door release time is manually adjustable from 0.8 s up to 8 s.



Wiring example for light switching

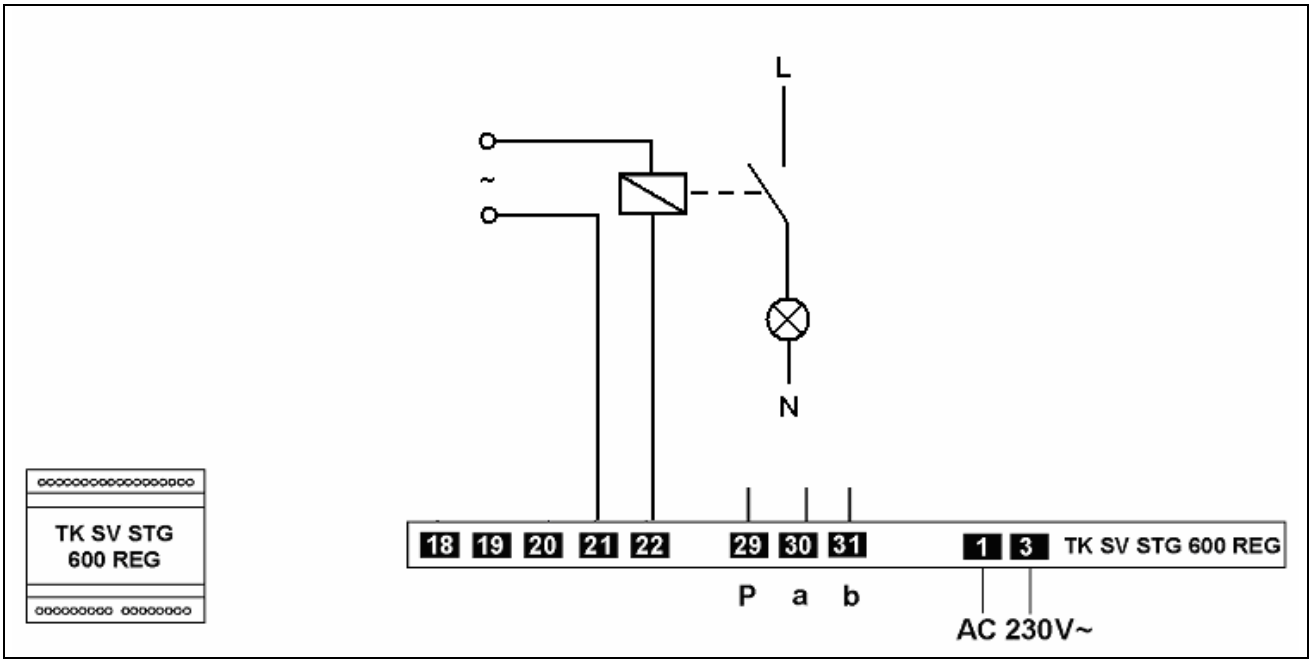
The following various light functions trigger or retrigger the internal floating switch contact (max. 24 V, DC 1 A).

Automatic light switching	The light will be switched depending on the ambient brightness when you push the bell button of the outdoor station. The limited brightness value is adjustable.
Light switching	The function button of the indoor station is assigned with the function "light switching" (factory setting). A bell button of the outdoor station will switch the light, if the bell button is not assigned to an indoor station.
Light switching function	This door release button of the indoor station can be assigned with a second function, when the light switching function is activated: You first have to push the communication button before you can release the door with the door release button. Without pushing the communication button you will switch the light with the door release button.

! Mains voltage load circuits have to be switched with an external control relay. The galvanic separation according to SELV is required.

Wiring example for a relay with external power supply

Connection of an external control relay for a load circuit to the time-controlled floating contact (max. 24 V, 1 A).



In an existing staircase installation, the switching contact of the *TKSVSTG 600 REG* has to be connected to the push-button terminal of the existing staircase timer switch. The light switching time has to be set to the minimum at the power supply & control unit.

Possible external control relay:

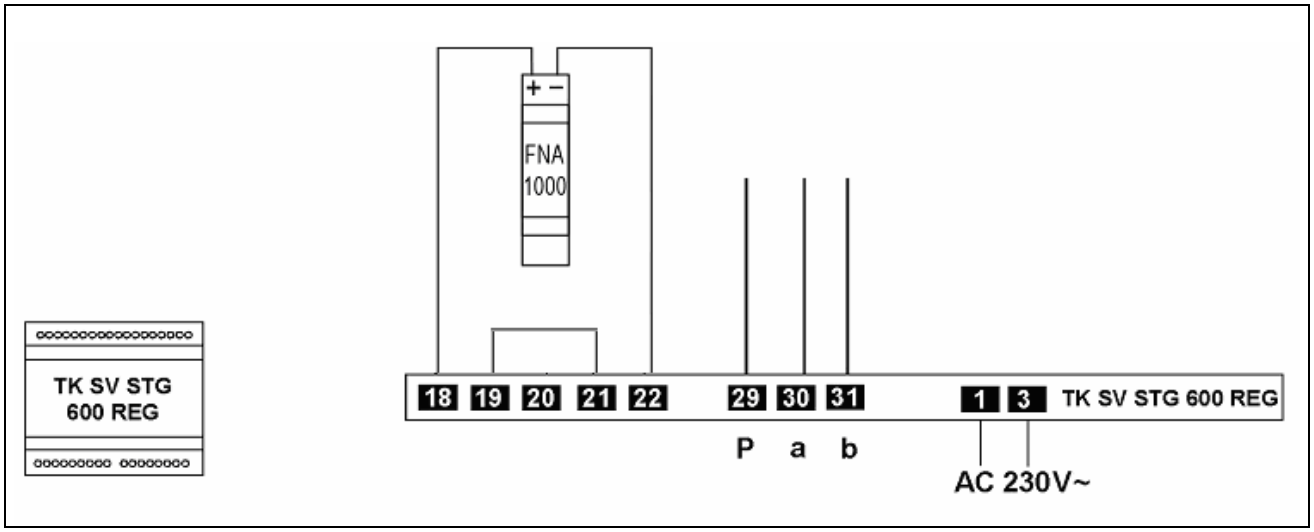
- Control relay of company Eltako ER12-001-8-230V UC

Wiring example for an external relay to the internal power supply

The power supply of an external staircase timer switch or control relay with an universal voltage input is possible (AC 12 V, power supply for door release).

!	Exclusively install relays with an universal voltage input and a max. control capacity of 250 mW. The galvanic separation according to SELV is required.

The control input of the relay is to be connected at the terminals 22 and 18. The terminals 19 and 21 have to be connected.



Possible relay types:

- Staircase timer switch TCS Art.-Nr.: FNA1000-0400 or TZ1-SG (with 8 V-24 V AC)
- Staircase timer switch Theben Elpa1
- Staircase timer switch Eltako TLZ12M-230V+8V..230V UC
- Control relay Eltako ER12-001-8-230V UC

Mounting

Rail mounting into distribution panel according to DIN EN 50022

Wiring

Type of cable: Standard telecommunication cables, e. g. J-Y (St) Y with twisted pairs and a cross section of 0.6 mm or 0.8 mm.

- Connect the wires according to the wiring diagram.

Commissioning

! The total current of the indoor stations, outdoor stations and other devices may not exceed the output current I(P) of the des TK SV STG 600 REG.

- Install all devices of the DCM system
- Short-circuit test for a-, b- and P-wires
- Switch on supply voltage
  Following functions should work without programming:
  - Communication of indoor station with outdoor station
  - Door release function
  - Switching light
- Programming of entire DCM system is described in the manual of the outdoor station

Operation

Signs and symbols

Push the button briefly		LED flashes slowly	
Push the button until ….		LED is illuminated	
Release the button		Next	

Switch ON the programming mode of the device

The system is active, LED is illuminated	
	
Push RUN/PROG button briefly (< 1 s)	LED flashes

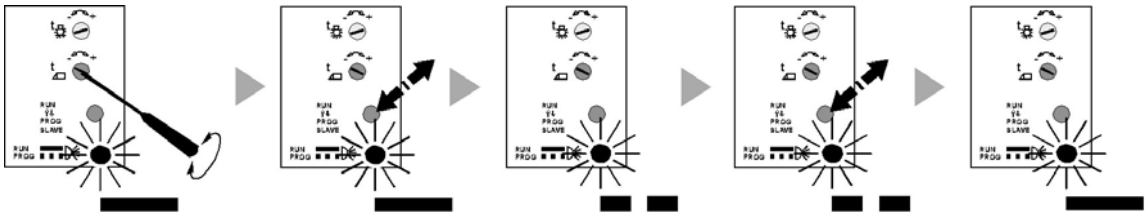
Switch OFF the programming mode of the device

The system is active, LED flashes	
	
Push RUN/PROG button briefly (< 1 s)	LED is illuminated

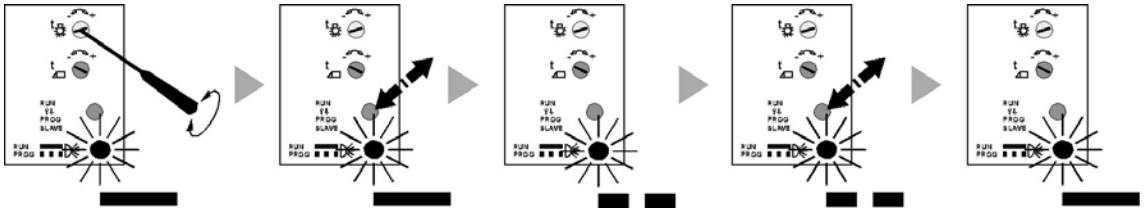
Settings

! To protect the system against manipulation, new programming of switching times will be saved only by means of switching the programming mode on and off.

Door release time

The system is active, LED is illuminated				
Set the time		then switch the programming mode on and off		
				
–: min. 1 s +: max. 8 s	Push RUN/PROG button briefly (< 1 s)	LED flashes	Push RUN/PROG button briefly (< 1 s)	LED is illuminated

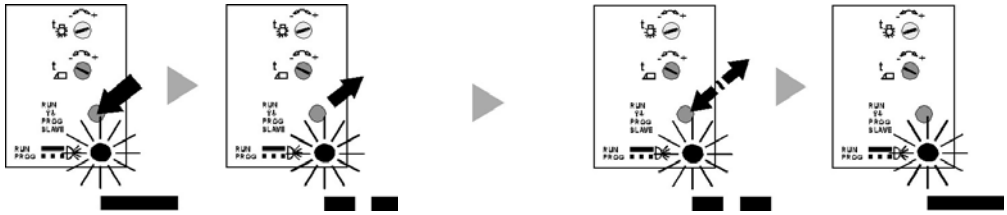
Light switching time

The system is active, LED is illuminated				
Set the time		then switch the programming mode on and off		
				
–: min. 1 s +: max. 5 min.	Push RUN/PROG button briefly (< 1 s)	LED flashes	Push RUN/PROG button briefly (< 1 s)	LED is illuminated

Light switch function

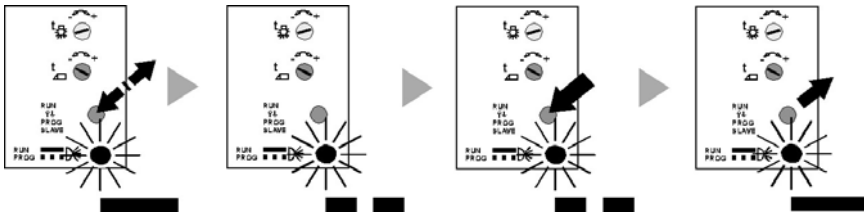
If the communication between indoor and outdoor station is NOT activated, you can switch the light with the **door release button**.
Factory settings: Function is deactivated

Activate the light switch function

The system is active, LED is illuminated			
			
Push RUN/PROG button until…	the LED flashes, then release button	Push RUN/PROG button briefly (< 1 s)	LED is illuminated

The flashing of the LED does NOT indicate, that the system is in programming mode.

Deactivate the light switch function

The system is active, LED is illuminated			
			
short push of RUN/PROG-button (< 1 s)	LED flashes	press RUN/PROG-button until	LED is illuminated, then release button

The flashing of the LED does NOT indicate, that the system is in programming mode.

Technical data

Input voltage:	AC 230 V~ ± 15 %, 50 / 60 Hz
Housing:	rail mounting device, 6 rail units DIN EN 60715 TH35
Weight:	800 g
Permissible ambient temperature:	0 °C to 40 °C
Output current a-terminal:	I(a) = 60 mA
Output current P- terminal:	I(P) = 600 mA
Output open circuit voltage:	U(a/b) = 24 V ± 1 V, U(b/P) = 26V ± 1V
Output voltage talking:	U(a/b) = 21 V ± 1 V
Door release open circuit voltage:	U(Dr) = 12 V ± 2 V, 50 Hz (depending on load)
Switching contact light:	floating make contact, 24 V DC / 1 A
EMC compatible:	according to EN 50081 and EN 50082-2
Radio interference suppression:	according to EN 55011

Acceptance of guarantee

We accept the guarantee in accordance with the corresponding legal provisions.
Please return the unit postage paid to our central service department giving a brief description of the fault:

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Technique (DCM)

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Technical subjects to change.
EN_PI_TKSVSTG600REG_1v4.doc
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