

## RS485 bus dimming actuator CE controller FSG12/1-10V for electronic ballast units 1-10V

valid for devices from production week 08/10  
(see bottom side of housing)

Dimming actuator 1 channel, 1 NO contact not potential free 600VA and 1-10V control output 40mA. Only 0.9 watt standby loss. With adjustable minimum brightness and dimming speed. With switching operation for light alarm clocks, children's rooms and snooze function.

Modular device for DIN-EN 60715 TH35 rail mounting. 1 modul = 18mm wide, 58mm deep.

State-of-the-art hybrid technology combines advantages of nonwearing electronic control.

### Zero passage switching to protect contacts.

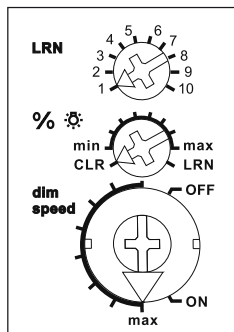
The 12V DC supply voltage of the complete RS485 bus is mainly powered at 6W, 12W or 24W by a switch mode power supply unit SNT12-12V DC that is only 1 or 2 pitch units wide. The power consumption of the 12V DC power supply is only 0.05W.

The brightness level is stored on switch-off (memory).

In case of a power failure the switch position and the brightness stage are stored and may be switched on when the power supply is restored.

**Connection to the Eltako RS485 Bus, terminals RSA and RSB. Up to a total of 128 actuators can be added in this way.**

### Function rotary switches



The minimum brightness (fully dimmed) is adjustable with the % CLR rotary switch. In the setting LRN up to 35 wireless pushbuttons can be assigned therefrom one ore more central pushbuttons.

The dimming speed is adjustable using the **dimming speed rotary switch**.

The load is switched on and off by a bistable relay at output EVG. Switching capacity for fluorescent lamps or LV halogen lamps with EGV 600VA.

**By using a bistable relay coil power loss and heating is avoided even in the on mode.**

After installation, wait for short automatic synchronisation before the switched consumer is connected to the mains.

**The pushbuttons can be taught-in either as direction switches or universal switches:**

**As a direction switch**, press up is brighter and press down is darker respectively above short pressing means switch ON and below short pressing switch OFF. A double click above activates automatic updimming until full brightness with dim speed. A double click below activates snooze function. The children's room function will be realized with the upper switch.

**As a universal switch**, change the direction by briefly releasing the pushbutton. With switching operation for children's rooms and snooze function.

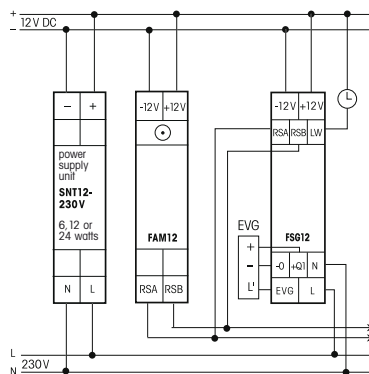
**Switching for light alarm clocks:** A wireless signal of a time clock which was taught-in accordingly starts the wake up function by switching on the light at the lowest brightness level and dims up slowly until the maximum level is reached. Dependent on the set dim speed the wake up time is between 30 and 60 minutes. The dimming process is stopped by tapping briefly, e.g. on the hand-held transmitter. The contact of the timer must connect terminals +12V and LW at least 0.2 seconds.

**Switching operation for children's rooms, when activated:** If the light is switched on by holding down the pushbutton (universal switch or direction switch above), it starts at the lowest brightness level after approx. 1 second and dims up slowly as long as the pushbutton is held down. The last saved brightness level is not modified.

**Snooze function, when activated** (universal switch or direction switch below): With a double impulse the lighting is dimmed down from the current dimming position to the minimum brightness level and switched off. The current dimming position as well as the adjustable minimum brightness level determine the dimming time (max. = 60 minutes) which can be reduced as required. It can be switched off at any time by short-time control commands during the lighting is dimmed down.

The LED performs during the teach-in process according to the operation manual. It shows wireless control commands by short flickering during operation.

### Typical connection



### Technical data

Fluorescent lamp or low voltage halogen lamp with electronic ballast units	600 VA
Standby loss (active power)	0.9 W

### Teaching-in wireless sensors in wireless actuators

**All sensors must be taught-in in the actuators so that they can detect and execute commands.**

### Teaching-in actuator FSG12/1-10V

⚠ Also the mains connection N/L is required for teach-in.

The teach-in memory is empty on delivery from the factory. If you are unsure whether the teach-in memory contains something or not, **you must first clear the memory contents completely:**

Set the middle rotary switch to CLR. The LED flashes at a high rate. Within the next 10 seconds, turn the upper rotary switch three times to the right stop (turn clockwise) and then turn back away from the stop. The LED stops flashing and goes out after 2 seconds. All taught-in sensors are cleared.

**Clear individual taught-in sensors** in the same way as in the teach-in procedure, except that you set the middle rotary switch to CLR instead of LRN, and operate the sensor. The LED previously flashing at a high rate goes out.

### Teaching-in sensors

- Set the top rotary switch to the required teach-in function:
  - 1 = timer as wake-up light;
  - 2 = teach-in 'central off';
  - 3 = universal switch on/off and dim;
  - 4 = teach-in 'central on';
  - 5 = teach-in direction switch: top 'switch on and dim up', bottom 'switch off and dim down';
 Positions 6 to 10 are unassigned.
- Set the middle rotary switch to LRN. The LED flashes at a low rate.
- Operate the sensor to be taught-in. The LED goes out. As universal switch, teach-in either the top and bottom pushbutton or as direction switch, operate only top or bottom.

To teach-in further sensors, turn the middle rotary switch briefly away from position LRN. Continue the procedure from pos 1.

After teach-in with the top rotary switch, activate the required function:

- Pos. 1: without switching function for children's rooms and snooze function
- Pos. 2: with switching function for children's rooms
- Pos. 3: with snooze function
- Pos. 4-10: with switching function for children's rooms and snooze function

Use the middle rotary switch to set the minimum brightness.

Use the bottom rotary switch to set the dimming speed.



When an actuator is ready for teach-in (the LED flashes at a low rate), the very next incoming signal is taught-in. Therefore, make absolutely sure that you do not activate any other sensors during the teach-in phase.

## Important Note!

**Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock.**