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Eltako ELECTRONICS

RS485 bus actuator

Staircase off-delay timer

FTN14

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

Temperature at mounting location:
-20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity:
annual average value <75%.

valid for devices from production week 40/17 (see bottom side of housing)

Staircase off-delay timer, 1 NO contact not potential free 16A/250V AC, incandescent lamps up to 2000 watts, switch-off early warning and switchable pushbutton permanent light. Also for energy saving lamps ESL up to 200 Watt. Bidirectional. Only 0.2 watt standby loss.

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

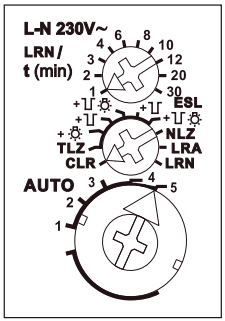
Connection to the Eltako-RS485 bus. Bus cross wiring and power supply with jumper.

Switching voltage 230V.

Zero passage switching to protect contacts and consumers.
When the power supply fails, the switching state will be maintained. With recurring supply voltage, the timing starts at the end of which it will be switched off.

In addition to the bus control input, this staircase off-delay timer can also be controlled locally by a conventional 230V control switch. Glow lamp current up to 5mA, dependent on the ignition voltage of the glow lamps.

Function rotary switches



The upper rotary switch LRN is required for teach-in. Then the off-delay 1 to 30 minutes can be set.

Wireless pushbuttons and/or wireless motion-brightness sensors FBH will be taught-in **with the middle rotary switch** in the setting LRN, of which one or more are central control pushbuttons. The required function of this staircase off-delay timer can then be selected:

NLZ = off-delay timer with adjustable operate delay

TLZ = staircase time switch

ESL = staircase time switch for energy saving lamps ESL

- +☼ = with pushbutton permanent light (only TLZ)
- +⎍ = with switch-off early warning (TLZ + ESL)
- +⎍☼ = with pushbutton permanent light and switch-off early warning (TLZ + ESL)

If the permanent light function ☼ is switched on, the function can be activated by pressing the pushbutton for longer than 1 second. This function switches off automatically after 60 minutes or by pressing the pushbutton for longer than 2 seconds.

If the switch-off early warning ⎍ is switched on, the light starts to flicker approx. 30 seconds before time-out. This is repeated three times at decreasing time intervals.

If both switch-off early warning and pushbutton permanent light ⎍☼ are switched on, switch-off early warning is activated before automatic switch-off of the permanent light.

A response delay (AV delay) can be set **with the lower rotary switch** at setting **NLZ** or when controlled with a switch.

Setting AUTO1 = 1s, AUTO2 = 30s, AUTO3 = 60s, AUTO4 = 90s and AUTO5 = 120s (clockwise). Also permanent light function can be set manually.

If in contrast NLZ will be controlled with a pushbutton, then it will be switched on with the 1st key and the timing starts at the 2nd key at the end of which it will be switched off.

When teaching-in **wireless motion/ brightness sensors FBH,** the switching threshold is defined on the last FBH taught-in to switch the light on/off depending on the brightness - provided motion is detected. The off delay set on the FTN14 is prolonged by a setting of 1 minute fixed in the FBH.

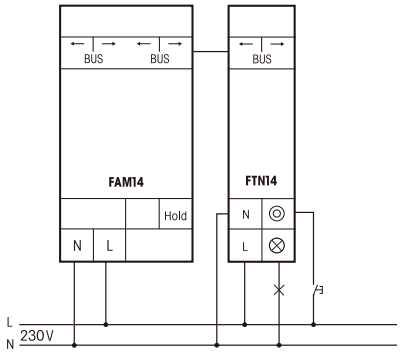
At **FB65B**, the light will turn on after a motion detection. 2 minutes after the last detected motion, the light will turn off, an eventual RV time is added to these 2 minutes.

When teaching-in **window/door contacts FTK and (or) window handles,** a NC or NO can be taught-in as required. Accordingly, the timing period starts when opening or closing the window or the door.

If **switches for permanent operation** are taught-in, for example wireless transmitter modules or FTS14EM, it is switched on when pressing and the time will be started when releasing.

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

Typical connection



Technical data

Rated switching capacity	16 A/250 V AC
Incandescent lamp and halogen lamp load [1]	up to 2000 W 230 V
Fluorescent lamp load with KVG* in lead-lag circuit or non compensated	1000 VA
Fluorescent lamp load with KVG* shunt-compensated or with EVG*	500 VA
Compact fluorescent lamps with EVG* and energy saving lamps	15 x 7 W 10 x 20 W
Local control current at 230 V control input	5 mA
Max. parallel capacitance (approx. length) of local control lead at 230 V AC	0.3 µF (1000 m)
Standby loss (active power)	0.2 W

[1] Applies to lamps of max. 150 W.

* EVG = electronic ballast units;
KVG = conventional ballast units

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 FTN14

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

The teach-in memory is clear on delivery from the factory. To ensure that a device was not previously taught-in, **clear the complete memory:**

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

Clear single 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:

1. Set the top rotary switch to the required teach-in function:
   1 = teach-in 'switch' (activation with wireless transmitter modules or FTS14EM);
   2 = teach-in 'central OFF';
   3 = universal switch;
   4 = teach-in 'central ON';
   6 = FTK and window handle as NC contact;
   8 = FTK and window handle as NO contact;
   1..20 = dark .. light of a FBH
   30 = FBH only motion detection
2. Set the middle rotary switch to LRN. The LED flashes at a low rate.
3. Operate the sensor to be taught-in. The LED goes out.

At **FB65B**, the upper rotary switch position is not important during the teaching-in procedure.

As universal switch, teach-in the top and bottom pushbutton.

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

Assign device address for the FTN14:
The rotary switch on the FAM14 is set to position 1, its lower LED flashes red. The middle rotary switch of the FTN14 is set to LRN, the LED flashes smoothly. After the address of the FAM14 was assigned, its lower LED flashes green for 5 seconds and the LED of the FTN14 goes out.

Delete device configuration:
Set the middle rotary switch to CLR. The LED flashes nervously. Then turn the upper rotary switch within 10 seconds 3 times to the leftmost stop (anticlockwise) and turn it back again.
The LED stops flashing and goes out after 5 seconds. The factory settings are restored.

Delete device configuration and device address:
Set the middle rotary switch to CLR. The LED flashes nervously. Then turn the upper rotary switch within 10 seconds 6 times to the leftmost stop (anticlockwise) and turn it back again.
The LED stops flashing and goes out after 5 seconds. The factory settings are restored and the device address deleted.

Configure FTN14:
The following points can be configured with the PC tool PCT14:

- behavior upon return of supply voltage
- teaching-in of wireless pushbuttons with single or double click
- add or change sensors

CAUTION! Don't forget 'disconnect FAM' in the PC tool. While the connection from the PC tool to the FAM14 exists, no wireless commands are executed.

Teach-in confirmation telegram of another bus actuator to the FTN14:
As in the teach-in procedure, only set the middle rotary switch to LRA instead to LRN.
'Switch ON' will be taught-in as 'central ON'.
'Switch OFF' will be taught-in as 'central OFF'.

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.

Must be kept for later use!
We recommend the housing for operating instructions GBA14.

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34/2017 Subject to change without notice.