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Eltako ELECTRONICS

RS485 Bus switching actuator CE
Staircase off-delay timer
FTN12-12 V DC

1-channel switching actuator, 1 NO contact not potential free 16 A/250 V 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. Only 0.3 watt standby loss.

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

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

Up to 35 pushbuttons each with 4 functions can be assigned to each channel, of which one or more central pushbuttons.

Switching voltage 230 V.

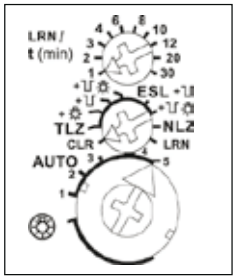
Zero passage switching to protect contacts and consumers.

The 12 V DC supply voltage of the complete RS485 bus is mainly powered at 6 W, 12 W or 24 W by a switch mode power supply unit SNT12-12 V DC that is only 1 or 2 pitch units wide. When the relay of the FTN12 is switched on, 0.3 watt are required.

If the function TLZ is set, the lighting is switched on again after a power failure provided the set time has not yet elapsed.

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

With the middle rotary switch in the setting LRN up to 35 pushbuttons and/or wireless motion/brightness sensors FBH can be assigned, of which one ore more central 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.

With the bottom rotary switch an operate delay (AV-time) can be set at NLZ. Setting AUTO 1 = 1 s, AUTO 2 = 30 s, AUTO 3 = 60 s, AUTO 4 = 90 s und AUTO 5 = 120 s (right stop). Also permanent light function can be set manually.

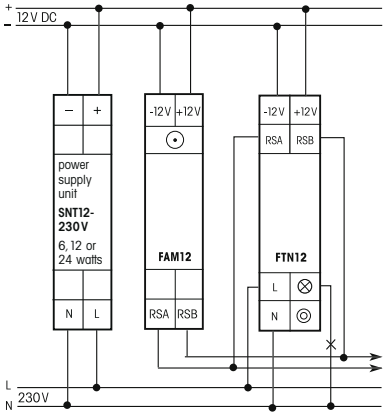
When teaching-in **wireless motion/brightness sensors FBH**, the switching threshold is defined on the last FBH taught-in to switch the light on/off depending on the brightness - provided motion is detected. The off delay set on the FTN12 is prolonged by a setting of 1 minute fixed in the FBH.

When teaching-in **window/door contacts FTK,** 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 FTS12EM, 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] 230 V	up to 2000 W
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)	0.3 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 FTN12-12 V DC

⚠ 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 or sensors of a channel 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

1. Set the top rotary switch to the required teach-in function:
   1 = teach-in 'switch' (activation with wireless transmitter modules or FTS12EM-UC);
   2 = teach-in 'central OFF';
   3 = universal switch
   4 = teach-in 'central ON';
   6 = FTK as NC contact
   8 = FTK 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. 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.

⚠ 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.

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