

Wireless actuator

Light controller
FLC61NP-230V

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 35/16 (see bottom side of housing)

1 NO contact not potential free 10A/250V AC, incandescent lamps 2000 watts, 5 selectable operating modes. Encrypted wireless, bidirectional wireless and repeater function are switchable. Only 0.8 watt standby loss. For installation. 45 mm long, 45 mm wide, 33 mm deep. Supply voltage, switching voltage and control voltage local 230V.

If a power failure occurs, the switching state is retained. If a power failure occurs repeatedly, the device is switched off in a defined sequence.

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

In addition to the wireless control input via an internal antenna, this wireless actuator can also be controlled locally by a conventional 230V control pushbutton mounted upstream. Glow lamp current is not approved.

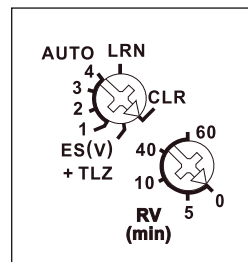
With effect from production week 35/16, you can teach in an operating mode pushbutton.

You can teach in encrypted sensors. You can switch on **bidirectional wireless** and/or a **repeater function**.

Every change in state and incoming central command telegrams are then confirmed by a wireless telegram.

This wireless telegram can be taught-in in other actuators, in the GFVS software and in universal displays.

Function rotary switches



With the top rotary switch in the setting LRN up to 35 wireless pushbuttons can be assigned therefrom one or more central control pushbuttons. In addition, wireless motion and brightness sensors. Then select the required operating mode:

ES(V)+TLZ: In this mode, the normal impulse switch function with pushbuttons is active. Use the lower rotary switch RV to set a time delay between 0 and 60 minutes for the ESV function. Press the universal pushbuttons and direction pushbuttons to switch on and off. The staircase time switch function TLZ results from the Central ON buttons and a time delay set using the rotary switch RV.

AUTO1: In AUTO1 mode, (semi automatic motion: only switch off motion controlled), switch on/off takes place by means of universal pushbuttons, direction pushbuttons or central control pushbuttons. Switch-off takes place by means of one or several wireless motion sensors (e.g. FBH65B) in case of no motion on expiry of the time delay set between 0 and 60 minutes using the lower rotary switch RV.

AUTO2: In AUTO2 mode (semi automatic motion and brightness: only switch off, motion and brightness controlled), switch on/off takes place by means of the universal pushbuttons, direction pushbuttons or central control pushbuttons. Switch-off takes place by means of one or several wireless motion-/brightness sensors (e.g. FBH65B) in case of no motion or insufficient brightness on expiry of the time delay set between 0 and 60 minutes using the

lower rotary switch RV.

AUTO3: In AUTO3 mode, (fully automatic motion: switch on and off, motion controlled), switch-on takes place in case of brightness threshold undershoot by means of one or several wireless motion/brightness sensors (e.g. FBH65B) and switch-off takes place in case of no motion on expiry of time delay set between 0 and 60 minutes using lower rotary switch RV. In addition, switch on/off takes place by means of universal pushbuttons, direction pushbuttons or central control pushbuttons.

AUTO4: In AUTO4 mode (fully automatic motion and brightness: switch on and off, motion and brightness controlled), switch-on takes place in case of brightness threshold undershoot by means of one or several wireless motion/brightness sensors (e.g. FBH65B) and switch-off takes place in case of no motion or sufficient brightness on expiry of time delay set between 0 and 60 minutes using lower rotary switch RV. In addition, switch on/off takes place by means of universal pushbuttons, direction pushbuttons or central control pushbuttons. Central pushbuttons have priority as long as they are pressed.

Once you have taught in an **operating mode pushbutton**, the 4 switches are configured with the following functions: top left AUTO, function according to the rotary switch position. Top right ON with priority. Bottom left and right OFF with priority. When you select AUTO mode, the lamp lights up briefly and then goes out.

One FBH in the room is sufficient to measure brightness when the lighting comprises fluorescent lamps, energy saving lamps or LED lamps. If lighting consists of electric light bulbs or halogen lamps, an outdoor brightness sensor must be taught-in as Master (e.g. FAH60) for operating modes AUTO2 and AUTO4.

If several sensors are taught-in, switch-off only takes place when all sensors report no motion or sufficient brightness.

The LED performs during the teach-in

process according to the operation manual. It shows wireless control commands by short flickering during operation.

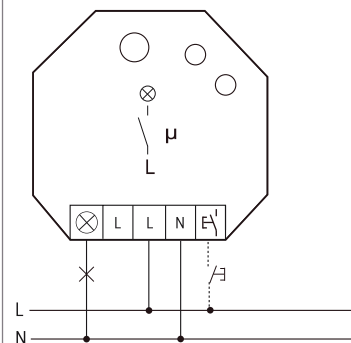
Semiautomatic motion detection with taught-in wireless motion sensor FB65B (factory setting) in function position

AUTO1: After you press the pushbutton to switch on, a release delay time of 5 minutes starts during which the device switches on again if motion is detected. When no more motion is detected, the device switches off automatically after 5 minutes plus the set release delay time. The actuator then responds to motion for a further 5 minutes before switching off automatically. After this time expires, the device must be switched on again by pressing the pushbutton. You can switch the device off at any time by pressing the pushbutton. Motion is then no longer evaluated.

Fully automatic motion detection with taught-in wireless motion sensor FB65B in function position AUTO3:

If the actuator is not to switch on automatically when motion is detected, e.g. in rooms without daylight, replug the jumper to 'active' on the FB65B device. When no more motion is detected, the device switches off automatically after the 5 minutes plus the release delay time. Press the pushbutton at any time to switch the device on or off. When motion is detected, the device switches on again automatically.

Typical connection



Technical data

Rated switching capacity 10A/250V AC
Standby loss (active power) 0.8W

Teaching-in wireless sensors in wireless actuators

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

Teaching-in actuator FLC61NP-230V

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

Turn the upper rotary switch to CLR. The LED flashes at a high rate. Within 10 seconds, turn the lower 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; the repeater and the confirmation telegrams are switched off.

Clear single taught-in sensors:

Turn the upper rotary switch to CLR. The LED flashes at a high rate. Operate the sensor. The LED goes out.

If all the functions of an encrypted sensor are cleared, teach-in must be repeated as described under *Teach-in encrypted sensors*.

Teaching-in sensors:

1. Setting of the lower rotary switch to the desired teaching-in function:

The flashing of the LED as soon as a new setting range has been reached when turning the rotary switch helps to find the desired position reliably.

Left stop 0 = teach-in 'central OFF';

5 = teach-in direction pushbutton; Direction pushbuttons are fully taught-in automatically when pressed.

Where you press defines the switch-on function; the opposite side is then for switch-off;

10 = teach-in universal pushbutton 'ON/OFF';

40 = Teach in operating mode pushbutton;

a complete pushbutton with double rocker is assigned automatically;

Right stop 60 = teach-in 'central ON';

Teaching in **FBH**: On teach-in, the brightness threshold is set at the lower rotary switch at which the FLC61NP is switched on in case of motion.

Left stop = darkness,

Turn to the right = gradually brighter

Right stop = FBH is only evaluated as motion sensor.

In case of several FBH devices, the last device taught-in determines the brightness threshold.

Teaching-in **FAH as Master** (then the FBH is only evaluated as motion sensor):

On teach-in, the brightness threshold is set using the lower rotary switch at which the FLC61NP is switched on in case of motion.

Left stop = darkness,

turn to the right = gradually brighter.

When a PC with GFVS software is taught-in, no teach-in position need be respected.

No teach-in position need be considered for FB65B.

When you teach in a GFVS teach-in telegram 0xE0400D80, a teach-in position need not be considered. This automatically switches on confirmation telegrams.

2. Set the upper rotary switch to LRN.

The LED flashes at a low rate.

3. Operate the sensor to be taught-in.

The LED goes out.

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

After teach-in, set the rotary switches of the actuators to the required function.

To prevent unintentional teach-in, teach in pushbuttons by 'double-clicking' (pressing rapidly twice in succession).

Within 2 seconds, turn the upper rotary switch three times to right stop LRN (turn clockwise). The LED flashes 'double'.

'Double-click' the pushbutton you want to teach in. The LED goes out.

To change back to teach-in with a 'single click', turn the upper rotary switch 3 times to right stop LRN (clockwise) within 2 seconds. The LED flashes at a low rate.

After a power supply failure, the device reverts automatically to teach-in with a 'single click'.

You can teach in unencrypted and encrypted sensors.

Teach in encrypted sensors:

1. Turn the upper rotary switch to LRN.

2. Turn the lower rotary switch three times to left stop (anticlockwise).

The LED flashes very rapidly.

3. Within 120 seconds, enable sensor encryption. The LED goes out.

Caution: Do not switch off the power supply.

4. Then teach in the encrypted sensor as described in *Teach in sensors*.

To teach in other encrypted sensors, turn the upper rotary switch briefly away from position LRN and then turn it to 1. With encrypted sensors, use the 'rolling code', i.e. the code changes in each telegram, both in the transmitter and in the receiver.

If a sensor sends more than 50 telegrams when the actuator is not enabled, the sensor is no longer recognised by the enabled actuator and you must repeat teach-in as 'encrypted sensor'. It is not necessary to repeat the function teach-in.

Switching on/off repeater:

If control voltage is applied to the local control input when the power supply is switched on, the repeater is switched on/off. When the power supply is switched on, the LED lights up for 2 seconds = repeater off (as-delivered state) or 5 seconds = repeater on to indicate the state.

Enable confirmation telegrams:

The confirmation telegrams are disabled when the device leaves the factory. Turn the upper rotary switch to CLR. The LED

flashes at a high rate. Within 10 seconds, turn the lower rotary switch three times to left stop (turn anti-clockwise) and back again. The LED stops flashing and goes out after 2 seconds. The confirmation telegrams are enabled.

Disable confirmation telegrams:

Turn the upper rotary switch to CLR. The LED flashes at a high rate. Within 10 seconds, turn the lower rotary switch three times to left stop (turn anti-clockwise) and back again. The LED goes out immediately. The confirmation telegrams are disabled.

Teaching-in feedback of this actuator

in other actuators: For changing of switching state and simultaneously transmitting of feedback the local control input has to be applied.

Teaching-in feedback of other actuators

in this actuator: Teaching-in feedback other actuators is only reasonable if this actuator is run in function setting ES(V). 'Switch on' will be taught-in in position 'central ON'. 'Switch off' will be taught-in in position 'central OFF'. After teach-in the function ES(V) and the desired off-delay will be set.



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.

EnOcean wireless

Frequency	868.3 MHz
Transmit power	max. 10 mW

Hereby, Eltako GmbH declares that the radio equipment type FLC61NP-230 V is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: eltako.com

Must be kept for later use!

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13/2018 Subject to change without notice.