



## Wireless actuator

Time relay for card switch or smoke alarm FZK61NP-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 32/19** (see bottom side of housing)

Wireless actuator for wireless card switch, wireless smoke detector, wireless window/door contact as well as wireless motion/brightness sensor, 1+1 NO contacts not potential free 10A/250V AC, incandescent lamps 2000 watts. Only 0.8 watt stand-by loss. Off-delay and response lag are adjustable for one contact. Encrypted wireless, bidirectional wireless and repeater function are switchable.

For installation.  
45mm long, 45mm wide, 33mm deep.  
Supply voltage and switching voltage 230V.

**This wireless actuator features state-of-the-art hybrid technology that we developed: we combined the wear-free receiver and evaluation electronics and two bistable relays with zero passage switching.**

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

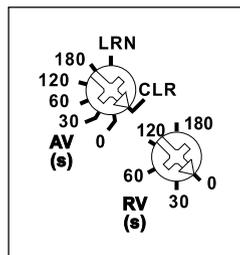
After installation, wait for short automatic synchronisation before the switched consumer is connected to the mains.  
Maximum current as the sum of both contacts 16A at 230V.

**Encrypted sensors can be taught in.** You can switch on **bidirectional wireless** and/or a **repeater** function.

Every status change and incoming central control telegrams are then confirmed by a wireless telegram. This wireless telegram can be taught-in in other actuators and in the GFVS software.

From the production week 32/19 wireless window-door contacts and motion brightness sensors can be taught-in and evaluated independently from the wireless card switch FKF. In this case, the contact L-2 only turns on/off depending of the wireless window door contacts or motion-brightness sensors, an eventual taught-in wireless card switch FKF then switches only the contact L-1.

### Function rotary switches



**The upper rotary switch AV** is required for teach-in. Then set here the response lag time AV between 0 and 180 seconds for Contact L-2.

**Use the bottom rotary switch RV** to set the time delay time RV between 0 and 180 seconds for Contact L-2.

**The AV and RV times permit the simple control of air conditioning systems with the wireless card switch FKF.**

The response lag AV starts as soon as the hotel card/key card is inserted in the wireless card switch FKF and the time delay RV starts after the card is removed.

**Additionally to the wireless card switch FKF, window/door contacts FTK, window handle sensor FFG7B-rw and motion brightness sensors FBH can be taught-in.**

Opening a monitored window also starts the RV time. When the RV time expires, Contact L-2 opens. Closing all monitored windows starts the AV time. When the AV time expires, Contact L-2 closes.

Contact L-1 is provided for light switching and always switches immediately without AV/RV. To increase the switching capacity for one channel, outputs 1 and 2 can be bridged, provided no air conditioning control is required. Then AV and RV must be set to 0.

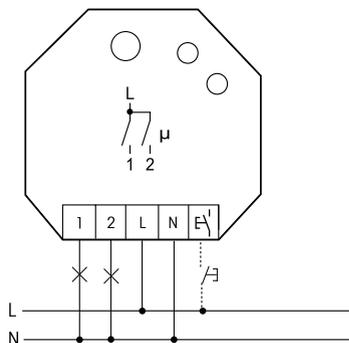
If motion detectors are taught-in, both channels switch on immediately in motion, if the hotel card is inserted. If no movement has been detected for 15 minutes, both channels are switched off, even if the hotel card is inserted.

**Several wireless smoke alarms FRW-ws** are logically linked with this switch actuator time relay so that the RV time only starts after all FRW-ws devices have signalled alarm end.

**Card switches and smoke alarms can not be operated together with an FZK device.**

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

### 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 FZK61NP

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.

180 = **AUTO1**; teach-in FKF, FRW, FTK, FFG7B and FBH

120 = **AUTO1**; teach-in FTK, FFG7B and FBH independently from the FKF.

30 = **AUTO2**; teach-in FTK, FFG7B and FBH independently from the FKF

0 = **AUTO2**; teach-in FKF, FRW, FTK, FFG7B and FBH

**AUTO1:** The relay switch position remains unchanged in case of a power failure.

**AUTO2:** The relay switches off in a defined state after a power failure.

2. Set the top rotary switch to LRN. The LED flashes at a low rate.

3. Operate the sensor to be taught-in. The LED goes out.

If more sensors require teach-in, turn the upper rotary switch briefly away from the LRN position and then back again.

**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.

**After teaching-in with the top rotary switch** set the response lag AV. Function dependent on sensor type:

**Wireless card switch FKF:**

After the hotel card/key card is inserted, Contact L-1 closes immediately and the AV starts. When the AV expires, Contact L-2 closes.

**Wireless window/door contact FTK and/or FFG7B:**

After all windows are closed, the AV starts. At the end of the AV, the contact L-2 closes.

**Motion detector/brightness sensor FBH:**

If "motion" is sent, both contacts close immediately.

**Use the bottom rotary switch** to set the time delay RV. Function dependent on sensor type:

**Wireless card switch FKF :**

After the hotel card/key card is removed, Contact L-1 opens immediately and the RV starts. When the RV expires, Contact L-2 opens.

**Wireless window/door contact FTK and/or FFG7B:**

After a window is opened, the RV starts. At the end of the RV, the contact L-2 opens.

**Motion detector/brightness sensor FBH:**

If "no motion" is sent, a fixed time delay of 15 minutes starts. At the end of the time delay, both contacts open.

**Switching on/off repeater:**

If the supply voltage is also applied to the right-hand terminal when the power supply is connected, 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.

**Switch-on confirmation telegrams:**

For deliveries ex-works the confirmation telegrams are switched-off. Set the upper rotary switch to CLR. The LED flashes nervously. Now within 10 seconds turn the bottom rotary switch 3 times to the left (anticlockwise) and then back away. The LED stops flashing and goes out after 2 seconds. The confirmation telegrams are switched-on.

**Switch-off confirmation telegrams:**

Set the upper rotary switch to CLR. The LED flashes nervously. Now within 10 seconds turn the bottom rotary switch 3 times to the left (anticlockwise) and then back away. The LED goes out immediately. The confirmation telegrams are switched-off.

**Teach-in confirmation telegrams of this actuator in other actuators or GFVS software:**

Use test probe to apply a voltage of 230V to the right-hand terminal to switch the contacts on and off one after the other (K1 on - K1 off - K2 on - K2 off, etc.) and send the corresponding confirmation telegram.



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 FZK61NP-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](http://eltako.com)**

**Must be kept for later use!**

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