GB
30 100 030 - **3**

Eltako ELECTRONICS

Wireless actuator

Impulse switch with integrated relay function FSR61NP-230 V

valid for devices from production week 22/09
(see bottom side of housing)

1 NO contact not potential free 10 A/250 V AC, incandescent lamps up to 2000 watts, off delay with switch-off early warning and switchable pushbutton permanent light. Only 0.9 watt standby loss.

For installation and surface mounting. 45 mm long, 55 mm wide, 33 mm deep.

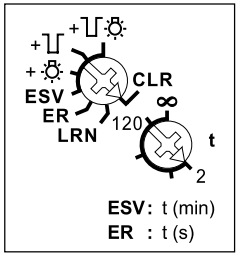
Switching voltage and control voltage local 230 V.

This wireless actuator is an impulse switch with integrated relay function and features state-of-the-art hybrid technology that we developed: we combined the wear-free receiver and evaluation electronics and a bistable relay 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.

In addition to the wireless control input via an internal antenna, this universal impulse switching relay can also be controlled locally by a conventional 230 V control switch if fitted previously. Glow lamp current is not permitted.

Function rotary switches



With the top rotary switch in the setting LRN up to 35 wireless pushbuttons can be assigned therefrom one ore more central control pushbuttons. In addition wireless window/door contacts with the function N/O contact or N/C contact while the window is open. The required function of the impulse switch with integrated relay function can then be selected:

ER = switching relay

ESV = impulse switch.
Possibly with off delay, then:

+ ☼ = ESV with pushbutton permanent light

+ ⊓ = ESV with switch-off early warning

+ ⊓ ☼ = ESV with pushbutton permanent light and switch-off early warning

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 2 hours or by pressing the pushbutton.

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.

The function ESV **on the bottom rotary switch** sets the off delay from 2 to 120 minutes. In setting ∞ normal impulse switch function ES without off delay, without pushbutton permanent light and without switch-off early warning.

In setting ER = switching relay of the other rotary switch, this 2nd rotary switch fulfils a safety and power saving function in the settings except ∞. If the switch-off command is not recognised, e.g. since the pushbutton is jammed or it was pressed too quickly, the relay switches off automatically on expiry of a time adjustable between 2 and 120 seconds. When a FTK is taught-in, this time function is turned off.

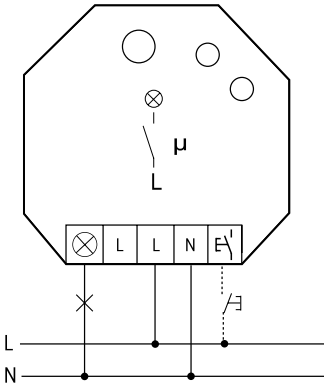
If there are **open flames**, waste air fans may only be switched on if the windows are open to ensure oxygen supply.

Twilight switch with taught-in wireless outdoor brightness sensor FAH and then in function setting ESV. In time setting 120 the contact opens with a delay of 4 minutes if the brightness level is sufficient. In time setting ∞ the contact opens instantly. The local and central push-button control is still possible.

When teaching-in, the switching threshold is also taught-in: between break of twilight and complete darkness.

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

Rated switching capacity	10 A/250 V AC
Incandescent lamp and halogen lamp load [1] 230 V	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	3.5 mA
Max. parallel capacitance (approx. length) of local control lead at 230 V AC	0.01 µF (30 m)
Standby loss (active power)	0.9 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 such as wireless pushbuttons, wireless hand-held transmitters, wireless transmitter modules, wireless window/door contacts, wireless timers and wireless motion detector and brightness sensors must be taught-in in the actuators (receivers with dimmers, switches and relays) so that they can detect and execute commands.

Teaching-in actuator FSR61NP-230 V

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 upper rotary switch to CLR.
The LED flashes at a high rate. Within the next 10 seconds, turn the lower 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 upper 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. Setting of the lower rotary switch to the desired teaching-in function:
   Left stop 2 = teach-in 'central OFF' and FTK and Hoppe window handle as NC contact;
   Approx. middle = teach-in pushbutton 'ON/OFF';
   Pos. 120 = teach-in pushbutton as NC contact;
   Right stop ∞ = teach-in 'central ON' and FTK and Hoppe window handle as NO contact
   When a **FAH is taught-in as twilight sensor**, the position of the bottom rotary switch defines the threshold: 2 = complete darkness and 120 = break of twilight.
2. Set the upper rotary switch to LRN.
   The LED flashes at a low rate.
3. Operate the sensor which should be taught-in. The LED goes out.
   The base plate of the wireless window/door contact must be removed in order to conduct a teach-in. Press the red button to initiate a teach-in.

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.

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 reminder!

This electrical equipment may only be installed by skilled electricians otherwise fire hazard or danger of electric shock exists!