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Eltako ELECTRONICS

Wireless actuator

CE

Mains disconnection relay
FFR61-230V

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 11/14 (see bottom side of housing)

1+1 NO contacts not potential free 10A/250V AC, incandescent lamps up to 2000 watts. Only 0.8 watt standby loss. Encrypted wireless, bidirectional wireless and repeater function switchable.

For installation.
45mm long, 45mm wide, 33mm deep.

Supply voltage and switching voltage 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.

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.

The mains disconnection relay FFR61-230V interrupts the power supply of 1 or 2 circuits and this prevents interfering electromagnetic fields.

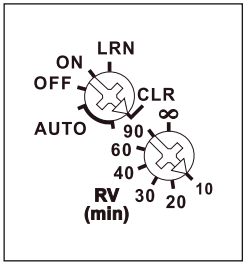
Maximum current as the sum of both contacts 16A at 230V.

Starting in production week 11/14, you can teach in encrypted sensors. You can switch on **bidirectional wireless** and/or a **repeater** function.

Every status change and incoming central control telegrams are confirmed by a wireless telegram. This wireless telegram can be taught-in in other actuators, in the GFVS software and in FUA55 universal displays.

This mains disconnection relay is fitted in the circuit distributor which branch off to max two 16A protected circuits in the room to be protected by mains disconnection. For example, one circuit for the lighting and one circuit for the socket outlets.

Function rotary switches



The circuits are enabled and disabled manually using one or several stationary wireless pushbuttons or hand-held wireless transmitters.

Use the upper rotary switch to switch on the device at ON and switch it off at OFF. In normal mode, turn the rotary switch to AUTO1.

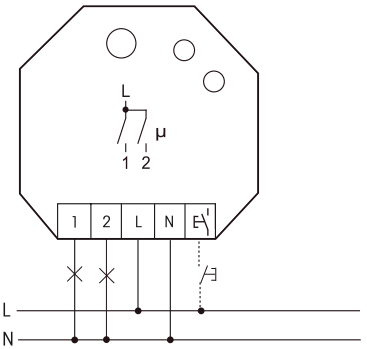
Use the lower rotary switch to set a release delay of 10 to 90 minutes to activate the universal and direction pushbutton for Contact L-2. Position ∞ has no release delay.

If a wireless pushbutton rocker is assigned to 'central ON' for the mains disconnection relay and to 'ON' for the lighting, the mains disconnection relay is automatically cancelled when the lighting is switched on.

If a wireless pushbutton rocker, e.g. a bedside light, is assigned with 'OFF' for the lamp and 'central OFF' for the mains disconnection relay, the mains disconnection is automatically activated when the bedside lamp is switched off.

7 teach-in positions of the FFR61 plus the switch-off delay gives the user plenty of scope to define the settings for the mains disconnection relay.

Typical connection



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 FFR61-230V

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 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.

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. Set the bottom rotary switch to the required teach-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.
   10 = universal switch, switch on K1;
   20 = universal switch, switch off K1;
   30 = universal switch, switch on K2;
   40 = universal switch, switch off K2;
   60 = teach-in 'central ON';
   90 = teach-in 'central OFF';
   ∞ = Direction double pusbutton, top ON and bottom OFF, contact L-1 left and contact L-2 right.
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.

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

After teach-in, the lower rotary switch is set for time delay (RV) for contact 2: 10, 20, 30, 40, 60, 90 or ∞ minutes.

The upper rotary switch is set to AUTO in normal mode.

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 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.

Teaching-in feedback of this actuator in other actuators or GFVS software:

Use test probe to apply a voltage of 230 V 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 the corresponding feedback will be sent.

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 FFR61-230 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.