GB

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Eltako ELECTRONICS

RS485 bus actuator

CE

Mains disconnection relay
FFR14

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%.

2-channel mains disconnection relay, 1+1 NO contacts potential free 16A/250V AC, incandescent lamps 2000 watts. Bidirectional. Only 0.1 watt standby loss.

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

Connection to the Eltako-RS485 bus. Bus cross wiring and power supply with jumper.

State-of-the-art hybrid technology combines advantages of nonwearing electronic control with high capacity of special relays.

The mains disconnection relay FFR14 interrupts the power supply of 1 or 2 circuits and prevents interfering electromagnetic fields.

To enable zero passage switching in patented Eltako Duplex technology, L must be connected to K(L) and N to (N). This results in an additional standby consumption of only 0.1 watt. N may not be connected if a contactor is switched downstream for the purpose of increasing performance.

When both relays of the FFR14 are switched on, 0.6 watts are required.

If supply voltage fails, the device is switched off in defined mode.

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

This mains disconnection relay is switched in the circuit distributor downstream of the 16A circuit breaker which protects up to two circuits in the room to be protected by mains disconnection. For example, one circuit for the lighting and one circuit for the socket outlets.

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

With the top rotary switch a time delay from 10 to 90 minutes can be set for the control with universal and direction pushbutton for contact 2.

In position ∞ without delay.

The middle rotary switch is required for teaching-in and is set to AUTO in normal mode.

With the lower rotary switch it will be switched on at ON and switched off at OFF. It is set to AUTO in normal mode.

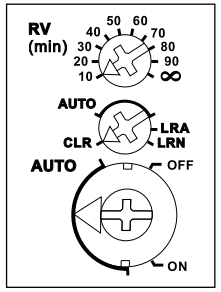
If a wireless pushbutton rocker is assigned to 'central ON' for the mains disconnection relay and to 'ON' for the lighting, the mains disconnection relay is automatically cancelled when the lighting is switched on.

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.

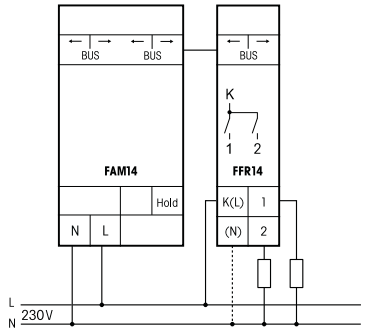
10 teach-in positions of the FFR14 plus the switch-off delay give the user plenty of scope to define the settings the mains disconnection relay.

The LED below the upper function rotary switch performs during the teach-in process according to the operation manual. It shows control commands by short flickering during operation.

Function rotary switches



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 FMZ14

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

Turn the middle rotary switch to CLR. The LED flashes at a high rate. Within 10 seconds, turn the upper 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.

Clear single 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:
   - 10 = universal switch, switch on K1;
   - 20 = universal switch, switch off K1;
   - 30 = universal switch, switch on K2;
   - 40 = universal switch, switch off K2;
   - 50 = teach in 'central ON';
   - 60 = teach in 'central OFF';
   - 70 = double pushbutton, top ON, bottom OFF, K1 left and K2 right;
   - 80 = double pushbutton, bottom ON, top OFF, K2 left and K1 right;
   - 90 = double pushbutton, top ON, bottom OFF, K2 left and K1 right;
   - ∞ = double pushbutton, bottom ON, top OFF, K2 left and K1 right;

   Double pushbuttons with 70, 80, 90 and ∞ are always taught-in completely no matter which pushbutton is pressed.
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.

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

After teach-in, the top rotary switch is set for time delay (RV) for Contact 2: 10, 20, 30, 40, 50, 60, 70, 80, 90 or ∞ minutes.

The middle rotary switch is set to AUTO.

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

Assign device address for the FFR14:
The rotary switch on the FAM14 is set to position 1, its lower LED flashes red. The middle rotary switch of the FFR14 is set to LRN, the LED flashes smoothly. After the address of the FAM14 was assigned, its lower LED flashes green for 5 seconds and the LED of the FFR14 goes out.

Delete device configuration:
Set the middle rotary switch to CLR. The LED flashes nervously. Then turn the upper rotary switch within 10 seconds 3 times to the leftmost stop (anticlockwise) and turn it back again. The LED stops flashing and goes out after 5 seconds. The factory settings are restored.

Delete device configuration and device address:
Set the middle rotary switch to CLR. The LED flashes nervously. Then turn the upper rotary switch within 10 seconds 6 times to the leftmost stop (anticlockwise) and turn it back again. The LED stops flashing and goes out after 5 seconds. The factory settings are restored and the device address deleted.

Configure FFR14:
The following points can be configured with the PC tool PCT14:

- behavior upon return of supply voltage
- teaching-in of wireless pushbuttons with single or double click
- add or change sensors

CAUTION! Don't forget 'disconnect FAM' in the PC tool. While the connection from the PC tool to the FAM14 exists, no wireless commands are executed.

Teach-in confirmation telegram of another bus actuator to the FFR14:
As in the teach-in procedure, only set the middle rotary switch to LRA instead to LRN.
Teach-in 'switch ON' as 'central ON'.
Teach-in 'switch OFF' as 'central OFF'.

⚠ 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.

Must be kept for later use!
We recommend the housing for operating instructions GBA14.

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02/2014 Subject to change without notice.