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Wireless system
F&Wave

FW-R1P-P

Single multifunction relay



Do not dispose of this device to trash with other unsorted waste! In accordance with the Waste Electrical and Electronic Equipment Act any household electrowaste can be turned in free of charge and in any quantity to a collection point established for this purpose, as well as to the store in the event of purchasing new equipment (as per the old for new rule, regardless of brand). Electro-waste thrown in the trash or abandoned in the bosom of nature pose a threat to the environment and human health.



Installation of the device should be performed by a qualified installer, after reading this manual.

Features of the module

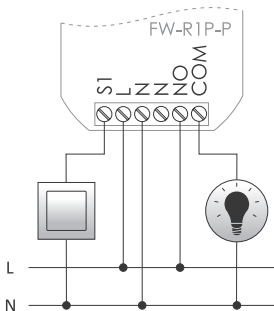
- Cooperation with F&Wave remote control transmitters;
- A single multifunction relay operates in 5 modes:
 - a) **Bistable relay** – first pressing of the button activates the relay, second pressing switches it off;
 - b) **Time relay** – pressing the button activates the relay for the preprogrammed time. It is possible to set the time from 1 second to 48 hours. Pressing the button while the relay is on starts the timing from the beginning;
 - c) **Monostable relay** – the relay remains switched on as long as the button on the remote control is pressed;

- d) **Switch on** – pressing the button activates the relay;
- e) **Switch off** – pressing the button deactivates the relay;

- The relay function is associated with the button of the transmitter. Each button can carry out a different function;
- Ability to control up to 32 transmitters;
- Local control – the possibility of directly control the relay using any monostable button (for example bell button). The local input can also have any relay function assigned to it;
- Group programming of transmitters – if several buttons have the same function, they can be set in one programming cycle;
- Separated NO output contact with a load capacity of 8 A (AC-1);
- Retransmission of signals from the transmitter – the ability to increase the range of remote control;
- Low power consumption – low operating cost;
- Built-in electronic thermal protection to prevent damage in case of excessive load of the relay.

* The bistable (2-position) pushbutton operates for bistable and timed mode. In bistable mode, each switching of the pushbutton (more than 1 second) switches the relay (on/off). In timed mode, each switching of the pushbutton switches the relay and starts the timing from the beginning.

Wiring diagram



S1 – control input triggered by level L or N

L – L power supply

N – N power supply (internally connected)

NO – relay contact

COM – relay contact



The control input does not work with backlit buttons.

Programming description

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If the same relay button is programmed more than once, it will only be written once in the memory of the controller.



If the user does not perform any actions (for example pressing the PROG button or pairing the button with the receiver) in the programming mode for 30 seconds, the programming mode will be terminated.



Setting the local input function is done in the same way as for the remote buttons and requires the local control button to be pressed when programming the receiver.

Controller programming

Bistable relay mode

1. Press and hold down the PROG button.
2. Keep the button pressed for approx. 2 seconds until the relay switches on and the LED starts blinking slowly (cycle 0.5 s ON – 0.5 s OFF).
3. Release the button. The controller will proceed to the operating mode configuration. The selected mode is signalled by short flashes of the LED, repeated every 2 seconds:
 - 1 blink – bistable relay;
 - 2 blinks – time relay;
 - 3 blinks – monostable relay;
 - 4 blinks – switch on;
 - 5 blinks – switch off.
4. Changing the operating mode is done by briefly pressing the PROG button (in the case of bistable mode, you do not have to do it – it is set by default after entering the pro-gramming mode).
5. To confirm the selected operating mode press and hold the PROG button until the LED starts to blink fast (0.1 s ON – 0.1 s OFF cycle) – this indicates the confirmation of the selected operating mode and entering to the next stage.
6. Release the button (if the button is not released within 60 seconds, system will automatically exit the programming mode). The controller will now proceed to pairing with transmitters, which is indicated by even

blinking of the LED (0.5 s ON - 0.5 s OFF cycle). The controller will register all commands received from now from transmitters and will link them with the chosen operating mode. The linking of the button with the receiver is indicated by a 1-second switch off of the relay and a 1-second activation of the LED. You can pair the controller with many buttons in one programming step.

7. To end the programming, press the PROG button briefly.

Time relay mode

1. Press and hold the PROG button.
2. Keep the button pressed for approximately 2 seconds until the relay switches on and the LED will slowly blink (0.5 s ON – 0.5 s OFF cycle).
3. Release the button. The controller will enter the configuration of the operating mode. The selected mode is indicated by short blinks of LED, repeated every 2 seconds:
 - 1 blink – bistable relay;
 - 2 blinks – time relay;
 - 3 blinks – monostable relay;
 - 4 blinks – switch on;
 - 5 blinks – switch off.

4. Changing the operating mode is done by briefly pressing the PROG button, so you need to press it once shortly to select the time relay mode.
5. To confirm the selected operating mode, press and hold the PROG button until the LED starts to blink fast (0.1 s ON – 0.1 s OFF cycle), and then release the button.
6. After confirming the operating mode, the controller goes to setting the switch-on time. In the first step the number of seconds is set (0÷59). The second edition mode is indicated by one long and one short blink of the LED (the cycle is repeated every 2 seconds).
7. Set the set number of seconds by briefly pressing the PROG button (each press is 1 second). If the number of seconds is to be zero, then do not press briefly, but just go straight to confirming the value (step 8).



The indication of the edited parameter occurs only until the first short press of a button. Then the LED indicates the fact of pressing the PROG button.

8. Confirm the selected operating mode by pressing and holding the PROG button until the LED starts to blink fast (0.1 s ON – 0.1 s OFF cycle), and then release the button.
9. In the next steps, the minutes (0÷59) and hours (0÷48) are set in the same way. Setting the minutes is indicated by one long and 2 short blinks of the LED, setting the hours – one long and 3 short blinks.

10. After setting the time, the controller will go into pairing with transmitters, which is indicated by even blinking of the LED (0.5 s ON – 0.5 s OFF cycle). The controller will register all commands received from now from transmitters and will link them with the chosen operating mode. The linking of the button with the receiver is indicated by a 1-second switch off of the relay and a 1-second activation of the LED. You can pair the controller with many buttons in one programming step.
11. To end the programming, press the PROG button briefly.

Monostable relay mode

1. Press and hold the PROG button.
2. Keep the button pressed for approximately 2 seconds until the relay switches on and the LED will slowly blink (0.5 s ON – 0.5 s OFF cycle).
3. Release the button. The controller will enter the configuration of the operating mode. The selected mode is indicated by short blinks of LED, repeated every 2 seconds:
 - 1 blink – bistable relay;
 - 2 blinks – time relay;
 - 3 blinks – monostable relay;
 - 4 blinks – switch on;
 - 5 blinks – switch off.
4. Changing the operating mode is done by briefly pressing the PROG button, so you need to press it twice

shortly to select the monostable relay mode (this will be indicated by 3 short blinks of the LEDs).

5. To confirm the selected operating mode, press and hold the PROG button until the LED starts to blink fast (0.1 s ON – 0.1 s OFF cycle) – this indicates the confirmation of the selected operating mode and entering the next stage.
6. Release the button (if the button is not released within 10 seconds, system will automatically exit the programming mode). The controller will now proceed to pairing with transmitters, which is indicated by even blinking of the LED (0.5 s ON – 0.5 s OFF cycle). The controller will register all commands received from now from transmitters and will link them with the chosen operating mode. The linking of the button with the receiver is indicated by a 1-second switch off of the relay and a 1-second activation of the LED. You can pair the controller with many buttons in one programming step.
7. To end the programming, press the PROG button briefly.

„Switch on” mode

1. Press and hold the PROG button.
2. Keep the button pressed for approximately 2 seconds until the relay switches on and the LED will slowly blink (0.5 s ON – 0.5 s OFF) cycle.
3. Release the button. The controller will enter the configuration of the operating mode. The selected mode is indicated by short blinks of LED, repeated every 2 seconds:
 - 1 blink – bistable relay;
 - 2 blinks – time relay;
 - 3 blinks – monostable relay;
 - 4 blinks – switch on;
 - 5 blinks – switch off.
4. Changing the operating mode is done by briefly pressing the PROG button, so you need to press it 3 times shortly to select the „Switch on” feature (this will be indicated by 4 short blinks of the LEDs).
5. To confirm the selected operating mode, press and hold the PROG button until the LED starts to blink fast (0.1 s ON – 0.1 s OFF cycle) – this indicates the confirmation of the selected operating mode and entering the next stage.
6. Release the button (if the button is not released within 10 seconds, system will automatically exit the programming mode). The controller will now proceed to pairing with transmitters, which is indicated by even blinking of the LED (0.5 s ON – 0.5 s OFF cycle). The controller will register all commands received from

now from transmitters and will link them with the chosen operating mode. The linking of the button with the receiver is indicated by a 1-second switch off of the relay and a 1-second activation of the LED. You can pair the controller with many buttons in one programming step.

7. To end the programming, press the PROG button briefly.

„Switch off” mode

1. Press and hold the PROG button.
2. Keep the button pressed for approximately 2 seconds until the relay switches on and the LED will slowly blink (0.5 s ON – 0.5 s OFF) cycle.
3. Release the button. The controller will enter the configuration of the operating mode. The selected mode is indicated by short blinks of LED, repeated every 2 seconds:
 - 1 blink – bistable relay;
 - 2 blinks – time relay;
 - 3 blinks – monostable relay;
 - 4 blinks – switch on;
 - 5 blinks – switch off.
4. Changing the operating mode is done by briefly pressing the PROG button, so you need to press it 4 times shortly to select the „Switch off” feature (this will be indicated by 5 short blinks of the LEDs).
5. To confirm the selected operating mode, press and hold the PROG button until the LED starts to blink fast (0.1 s ON – 0.1 s OFF cycle) – this indicates the confir-

mation of the selected operating mode and entering the next stage.

6. Release the button (if the button is not released within 10 seconds, system will automatically exit the programming mode). The controller will now proceed to pairing with transmitters, which is indicated by even blinking of the LED (0.5 s ON – 0.5 s OFF cycle). The controller will register all commands received from now from transmitters and will link them with the chosen operating mode. The linking of the button with the receiver is indicated by a 1-second switch off of the relay and a 1-second activation of the LED. You can pair the controller with many buttons in one programming step.
7. To end the programming, press the PROG button briefly.

Settings reset

1. Press and hold the PROG button.
2. Keep the button pressed for at least 10 seconds. After 2 seconds, the relay switches on and the LED will slowly blink (cycle 0.5 s ON - 0.5 s OFF). After a few more seconds the LED will stop blinking and after a few more it will start blinking rapidly. Fast blinking indicates entering the settings reset mode.
3. Release the button. The LED should blink rapidly all the time.
4. Press and hold the button until the LED is permanently on and then release the button.

5. After executing this sequence, all program-med buttons will be removed from the memory of the controller.

Technical data

power supply	85÷265 V AC/DC
control input	85÷265 V AC/DC; <1 mA
power consumption	
on	0.60 W
standby	0.25 W
load capacity of the output (AC-1)	8 A/250 V
radio frequency	868 MHz
maximum emitted frequency power	10 mW
working temperature	-25÷65 °C
terminal	2.5 mm ² screw terminals
tightening torque	0.4 Nm
mounting	ø60 flush-mounted box
dimensions	43×48×20 mm
ingress protection	IP20

Warranty

F&F products are covered by a 24 month warranty from the date of purchase.

The warranty is effective only with a proof of purchase. Contact your dealer or directly with us.

CE declaration

F&F Filipowski L.P. declares that the device is in conformity with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.

The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at www.fif.com.pl on the product page.

Compliance with the standards

PN-EN 55024

PN-EN 60669

PN-EN 60950

PN-EN 61000

PN-ETSI EN 300 220-1

PN-ETSI EN 300 220-2

PN-ETSI EN 301 489-1

PN-ETSI EN 301 489-3

