



F&F Filipowski L.P.
Konstantynowska 79/81, 95-200 Pabianice, Poland
phone/fax (+48 42) 215 23 83 / (+48 42) 227 09 71
www.fif.com.pl; e-mail: biuro@fif.com.pl

Wireless system
F&Wave

FW-RC4-AC v2 Transmitter for $\varnothing 60$ flush-mounted box



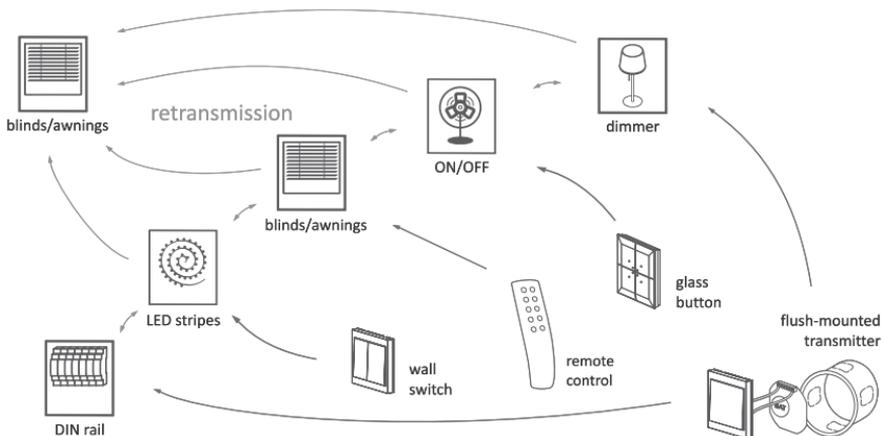
5 902431 670010

Do not dispose of this device to trash with other unsorted waste! In accordance with the Waste Electrical and Electronic Equipment Act any household electro-waste 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.



Description of the system

F&Wave is a family of wireless devices controlled by radio with a range of up to 100 meters*. The receivers are available in either a DIN-rail mounting version (housing 1S) or a $\varnothing 60$ flush-mounted version. The transmitters are available as handheld remote controllers or as a flush-mounted version. The receivers relay control signals. The device that receives a control signal from the transmitter will automatically send it forward, which allows to increase the range of the remote control.



* Range of up to 100 meters in open space without any interfering factors. In building conditions and in the presence of interference sources (power lines, transmitters, etc.) the actual range may be smaller.

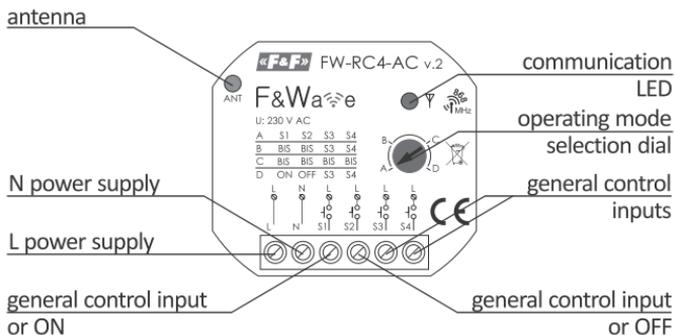


Installation of this device should be carried out by a qualified installer after reading this manual. Dismantling the casing of the device will automatically void the warranty. Before starting the assembly, make sure that the connecting wires are not live. Conditions of storage, transport and use affect the proper operation of the device.

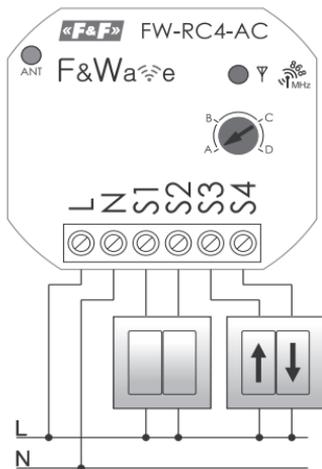
Features of the module

- ◆ 4-button remote control transmitter powered from 230 V;
- ◆ Ability of cooperating with momentary (monostable) buttons – S mode, and two-position (bistable) buttons – BIS mode.
- ◆ Cooperation with remote control transmitters of the F&Wave system;
- ◆ Ability to control any number of receivers;
- ◆ ON/OFF functionality (bi-stable switch) with receivers: FW-R1P, FW-R1D, FW-R2P, FW-R2D, FW-D1P, FW-D1D, FW-LED2P, FW-LED2D;
- ◆ Raise/lower the roller blind with receivers FW-STR1P, FW-STR1D;
- ◆ Dim/brighten the lighting with receivers FW-D1P, FW-D1D, FW-LED2P, FW-LED2D;
- ◆ Ability to change the configuration of the S1 input to ON – always switch on the paired receivers and/or raise the roller blind;
- ◆ Ability to change the configuration of the S2 input to OFF – always switch off the paired receivers and/or lower the roller blind;
- ◆ Small enclosure size;
- ◆ Screw terminals for easy installation in a $\varnothing 60$ flush-mounted box;
- ◆ Low power consumption – low operating cost.

Description of the device



Wiring diagram



- L – power supply L
- N – power supply N
- S1 – control input
- S2 – control input
- S3 – control input
- S4 – control input



Control input does not work with backlit buttons.

Pairing

①



After you successfully connect the receiver, press and hold the PROG button until the device switches on the output circuit and the communication LED goes off.

②



Press the selected button connected to the flush-mounted transmitter.

③

If the pairing is correct, the output circuit will be momentary switched off and the LED in the receiver will switch on again.



Exit from the programming mode of the receiver occurs automatically after 30 seconds of waiting for a signal from the transmitter or by briefly pressing the PROG button.

Unpairing

Unpairing of the flush-mounted transmitter from the receiver is only possible by clearing the list of all transmitters in the receiver. To clear the list of transmitters cooperating with the receiver, press and hold the PROG button for a minimum of 10 seconds. Fast flashing of the communication LED indicates that the memory of the controller is cleared.

Button configuration

Mode	Input			
A	S1	S2	S3	S4
B	BIS	BIS	S3	S4
C	BIS	BIS	BIS	BIS
D	ON	OFF	S3	S4

The functions performed by the inputs depend on the type of buttons connected and the type of receiver to be controlled.

Buttons can be connected to the transmitter:

- ♦ monostable (momentary) enabling the realisation of S1, S2, S3, S4, ON and OFF modes.
- ♦ bistable (2-position) enabling the realisation of the BIS mode.

Function S1, S2, S3, S4

Briefly pressing the monostable button will:

- ♦ switching on/off the relay receiver (*),
- ♦ raise/lower the roller shutter (*),
- ♦ switching on/off the light in the light dimmers.

A long press on the monostable button will:

- ♦ raise/lower the roller shutter for the time the button is pressed,
- ♦ decrease/increase the brightness level in the lighting dimmers.

ON function

A short press on the monostable button will:

- ♦ switching on the relay receiver (*),
- ♦ raising the roller shutter on roller shutter controllers (*),
- ♦ switching on the light in lighting dimmers.

The ON mode can be used to force a group of receivers to be switched on simultaneously.

(*) In the case of multifunction receivers, the action of the button may additionally depend on the selected programme of operation of the receiver.

Button configuration cont.

OFF function

A short press on the monostable button will:

- ♦ switching off the relay receiver (*),
- ♦ lowering a roller shutter on roller shutter controllers (*),
- ♦ switching off the light in lighting dimmers.

The OFF mode can be used to force a group of receivers off at the same time.

BIS function

This mode is recommended when bistable pushbuttons are connected. When the button is switched on, an ON command is sent, when the pushbutton is pressed, this command will be repeated additionally every approx. 60 s. When the pushbutton is switched off, the OFF command is sent, when the pushbutton is off, this command will be repeated approximately every 60 s. This solution is dedicated to cases where a receiver (or a group of receivers) is to be switched on for a (potentially long) time when the button is pressed, e.g. for remote control of circulating pumps or fans.



Due to the nature of transmission and retransmission it is not recommended to use the same button on the transmitter more often than every 2 seconds. Switching the receiver may occur with a slight delay.



It is not recommended to use remote bi-stable transmitters to control a group of receivers due to the risk of the switching status desynchronization (especially when working with larger distances and/or simultaneous use of the local buttons on the receivers).

(*) In the case of multifunction receivers, the action of the button may additionally depend on the selected programme of operation of the receiver.

Devices of the F&Wave system

Battery transmitters

Type	Product
Flood sensor	FW-FS1
Remote control	FW-KEY, FW-RC4, FW-RC10
Wall button	FW-WS1, FW-WS2, FW-WS3
	FW-WSO1, FW-WSO2, FW-WSO4
Flush-mounted box \varnothing 60	FW-RC5

AC transmitters

Type	Product
Flush-mounted box \varnothing 60	FW-GS1, FW-GS2, FW-GS4
	FW-RC4-AC

Receivers

Function	Flush-mounted box \varnothing 60	DIN rail
Universal dimmer	FW-D1P	FW-D1D
2-channel LED controller	FW-LED2P	FW-LED2D
Single relay	FW-R1P	FW-R1D
Single multifunction relay	FW-R1P-P, FW-R1-P-NN	FW-R1D-P
Double relay	FW-R2P	FW-R2D
Double multifunction relay	FW-R2P-P, FW-R2P-NN	FW-R2D-P
Roller blind controller	FW-STR1P	FW-STR1D
Roller blind multifunction controller	FW-STR1P-P	FW-STR1D-P

Technical data

power supply	85÷265 V AC/DC
control inputs	85÷265 V AC; <1 mA
power consumption	
operating mode	0.5 W
standby	0.25 W
radio frequency	868 MHz
working temperature	-25-50°C
terminal	2.5 mm ² screw terminals
tightening torque (max)	0.4 Nm
mounting	Ø60 flush-mounted box
dimensions	48×43×20 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 55024:2011
PN-EN 60669-1:2006
PN-EN 60669-2-2:2008
PN-EN 62368-1:2015-03
PN-ETSI EN 300 220-1 V3.1.1:2017-08
PN-ETSI EN 300 220-2 V3.1.1:2017-08
PN-ETSI EN 301 489-1 V2.1.1:2017-08
PN-ETSI EN 301 489-3 V1.6.1:2014-03
E231106