Wireless Wire® Radio connection system

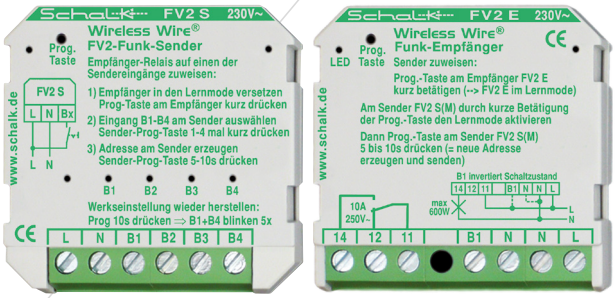
FV2 S
Transmitter with 4 inputs

FV2 E
Receiver with 1 relay output

Compact system for wireless transmission of switching states (wireless cable substitute)

Special features

- simple application as line replacement (input state at the transmitter is transmitted to the relay contact on the receiver)
- point-to-multipoint connection is also possible (one transmitter input controls several receivers)
- several radio connections can be installed next to each other (devices addressable)
- Transmitter with 230 V AC or with battery supply available
- Free field range 50 m (no external antenna)
- Repeater available to increase range
- Small housing (receiver fits in flush-mounted switch box)



General information

The wireless connection system FV2 is optimized for wireless transmission of switch states. Any change to the inputs of the FV2 S transmitter is transmitted directly via radio to the relay contact of one or more FV2 E receivers.
The devices can be addressed so that several radio connections of this type can also be operated next to each other.
Radio signals are sent when changes are made to the inputs and in time intervals. This enables the receiver to detect transmission problems and switch off automatically in the event of an error.

Applications

Extension of existing electrical installations, e.g. B. switch on additional lamps with an existing lamp, transfer the contact of a motion detector to several lamps, transfer the status of a heating thermostat to a control valve, transmit status and fault signals (door open, heating off, etc.) wirelessly.

Operation

Transmitter and receiver are factory-set with standard addressing and already react to each other after the electrical connection. Re-addressing of the devices is only necessary if several FV2 systems are installed within the same radio range.

Each input on the FV2 S can switch one or more receivers FV2 E specifically. If the receiver does not receive a valid radio signal for 270s, it switches the relay off automatically. LEDs indicate switching edges on the transmitter and valid radio signals on the receiver.

Initial operation:

The factory default setting is: As soon as the transmitter and receiver are powered on, the relay in the receiver can be controlled via input B1 of the transmitter. The inputs B2 .. B4 of the transmitter are only activated after addressing.

Addressing:
Assign a receiver FV2 E to one of the 4 inputs on the transmitter FV2 S.

1. First, the **receiver** is switched to learning mode by briefly pressing the “Prog.” button → The LED on the receiver lights up.

2. Then select the desired input **on the transmitter** by briefly pressing the “Prog.” button once or several times. → corresponding LED (B1 .. B4) on the transmitter lights up.

3.1 Assigning the **first receiver:**
Now press the programming button **on the transmitter** again and hold it pressed for more than 5s (the LED assigned to the input goes out after 1s and starts flickering after 5s - a new address is generated **during flickering**).
Now release the programming button → new address is transmitted to the receiver

3.2 Assigning **additional receivers:**
Now press the programming button **on the transmitter** again, keep it pressed for more than 1 second, and release it as soon as the LED goes out.
(when the button is released, the address already present is transmitted to the receiver. This means that several receivers can be switched via one input)

Reset to factory settings (FV2 S):
Press the programming button 10s until the LEDs B1 + B4 flash 5 times. Then input B1 sends with standard address and inputs B2 to B4 are inactive.

Reset to factory settings (FV2 E):
Press the “Prog.” button for 10s until the red LED flashes 5 times. The receiver then reacts to transmitters in the factory setting.

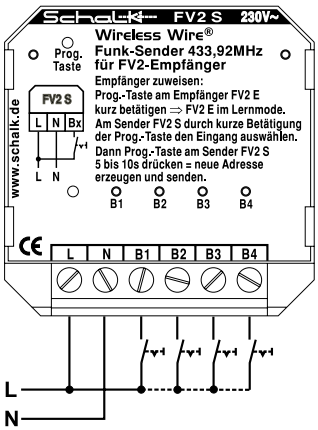
Notes regarding range:
The antenna of the devices is located just above the bottom of the housing and runs along the right and top edges of the housing. This area must have sufficient distance to metal surfaces. Since the radiation is not homogeneous, the range can be significantly improved by aligning the devices (to be determined in the experiment). The installation site should be at least 1 m above ground level.

For a good radio range and reliable radio reception, please observe in general:
- Do not mount radio modules directly on metal surfaces
- Avoid metallic housings and shields
- Install at highest possible locations (>1m above ground)
- Align transmitter and receiver optimally to each other
- Please note: damp or steel-reinforced walls and ceilings, moist soil, etc. attenuate any wireless radiation

Other electronic consumers (ballasts, switching power supplies, power regulators, etc.) may cause locally limited radio interference in individual cases.
In the event of a fault, please try to establish sufficient distance to an affected radio module.

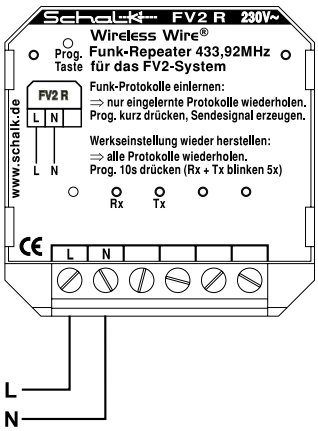
Electrical connection

Transmitter, 230V AC



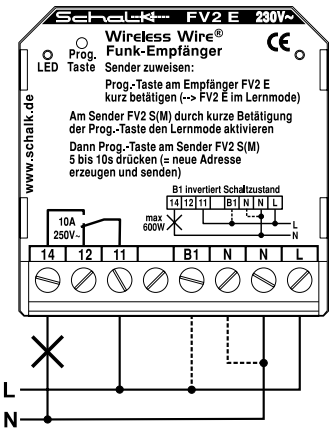
50m free-field range

Repeater, 230V AC

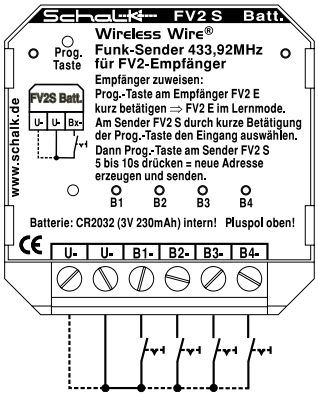


50m free-field range

Receiver, 230V AC



Transmitter, 3C DC battery



50m free-field range

Technical data

Wireless signal	433,92 MHz OOK PWM
Free field range	50 m
Ambient temp.	-10°C to +45°C
Connection terminals	Socket terminals with captive screws M3
Clamping range	0.5 mm² - 2.5 mm²
Strip length	6.5 mm - 7.0 mm
Screwing torque	0.50 Nm
Mounting orientation	If necessary, align the receiver with the transmitter (for better range)
Dimensions / weight	43 x 43 x 18,5 mm³ / 22 .. 33 g
RAL colour	grey 7035 / green 6029

FV2 S 230 V AC

Supply voltage	230 V AC 50/60 Hz 0.2 W
Eingangsimpedanz (Bx-N)	200 kΩ
Line capacity (L-Bx)	approx. 10 nF
Glow lamps (L-Bx)	max. 1 pc. (1 mA each)

FV2 S batt.

Supply voltage	internal button cell CR2032 Lithium battery 3 V 230 mAh
Battery life	typically 2 years

FV2 E

Supply voltage	230 V AC 50/60 Hz 0.7 W
Relay contact	1 change-over contact 10 A / 250 V AC potential-free (8 mm KLS)
Switch rating	see "Relay contacts" data sheet

Compatible devices: Radio connection receiver/transmitter of the FV2 series, radio repeater FV2 R

Order data

Item no.	EAN	Type	Designation
FV2S09	4 046929 101264	FV2 S (230V AC)	Radio transmitter with 4 inputs, 230V AC (FMD)
FV2S0B	4 046929 101271	FV2 S (3V DC)	Radio transmitter with 4 inputs, 3V DC, incl. batt. (FMD)
FV2E09	4 046929 101189	FV2 E	Radio-controlled switch, 1 CO contact 230V AC, 10A (FMD)

Accessories

Item no.	EAN	Type	Designation
HC3500	4 046929 901048	HC 35	DIN rail clip for flush-mounted housings

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