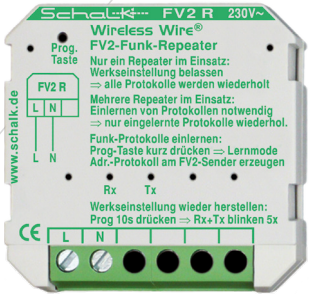
Radio repeater FV2 R

For increasing the range of all Fx3 (FE3, FD3, FS3) and FV2 radio systems

Special features

- Increases the radio range
- Compatible with all Schalk radio transmitters and receivers of the series Fx3 and FV2
- No external antenna necessary
- Compact housing for flush-mounted boxes
- Simple setup



General information

The radio repeater FV2 R is used to extend the range of the Schalk radio systems.
The FV2 R receives already attenuated radio protocols and then transmits them again with full transmission power.

Applications

Increase of the radio range for all current Schalk radio systems.

Operation

All radio protocols (factory setting) or only specially trained radio protocols can be repeated.

Installation and configuration

In most applications it is recommended to operate the repeater directly in its factory setting.

The special teaching of radio protocols is only necessary if disturbing radio overlays of several simultaneously responding radio repeaters (e.g. from neighbouring installations within radio range) can occur. As soon as at least one radio protocol has been tuned in, the repeater reacts only to the tuned in radio protocols.
A disturbing, simultaneous response of several repeaters can thus be specifically excluded.
Cascading of several repeaters is not possible!

Teaching radio protocols

Teaching in with a transmitter from the FS3 series:
1) By briefly pressing the "Prog." key on the FV2 R, the programming mode is activated. LED Rx lights up green.
2) On the transmitter, press the send button to be programmed briefly.

The Rx LED on the repeater goes out when a valid signal is received. The teach-in process is thus successfully completed.
If the repeater cannot receive a valid radio protocol within 20s, the teach-in process is automatically aborted.
In this way, up to 12 response codes can be learned.

Teach-in process with magnetic contact transmitter FV2 SM:
1) By briefly pressing the "Prog." key on the FV2 R, the programming mode is activated. LED Rx lights up green.
2) Briefly press the programming button in the open transmitter. The LED in the transmitter starts to light red.
3) Now press the programming button in the transmitter again and keep it pressed until the red LED goes out.

The Rx LED on the repeater goes out when a valid signal is received. The teach-in process is thus successfully completed.
If the repeater cannot receive a valid radio protocol within 20s, the teach-in process is automatically aborted.

Teach-in process with transmitter FV2 S:
1) By briefly pressing the "Prog." key on the FV2 R, the programming mode is activated. LED Rx lights up green.
2) At the transmitter by repeatedly briefly pressing the “Prog." button, select the radio channel to be tuned in (B1 to B4) The corresponding LED lights red.
3) Now press the"Prog." button on the transmitter again and keep it pressed until the red LED goes out.

The Rx LED on the repeater goes out when a valid signal is received. The teach-in process is thus successfully completed.
If the repeater cannot receive a valid radio protocol within 20s, the teach-in process is automatically aborted.
A maximum of 12 different radio protocols can be tuned in.
The Rx-LED and Tx-LED flash twice simultaneously if an attempt is made to learn more than 12 radio protocols.

Deleting radio protocols

Delete the last taught-in radio protocol:
1) By briefly pressing the "Prog." key on the FV2 R, the programming mode is activated. LED Rx lights up green.
2) Now press the"Prog." button on the transmitter for more than 5s. The Rx and Tx LEDs flash 3 times to confirm.

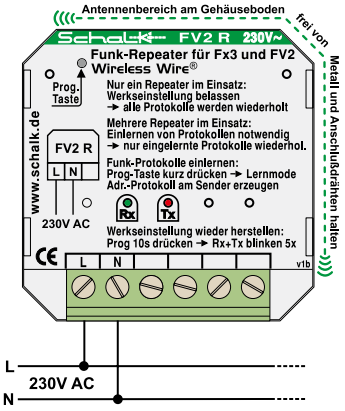
Delete all taught-in radio protocols (restore factory settings):
If the repeater is not in teach-in mode and the "Prog.” button is pressed for longer than 10s, all taught-in radio protocols are deleted. The repeater is thus reset to its factory setting.
The Rx and Tx LEDs flash 5 times to confirm.

LED function display

Tx-LED flickers red:
Valid radio protocols are received and transmitted (normal repeater operation).

Rx-LED flickers green:
Unlearned radio protocols are received correctly, but not forwarded.

Electrical connection and range optimization

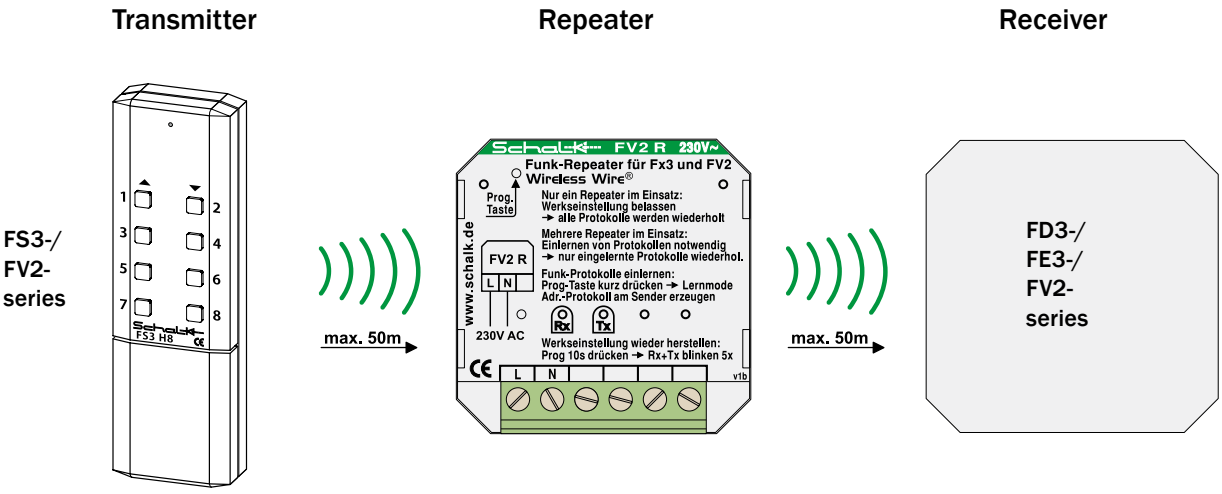


Notes on wireless range:
The antenna of the devices is located just above the bottom of the housing and runs along the right and top edges of the housing. This area must have sufficient distance to metal surfaces. Since the radiation is not homogeneous, the range can be significantly improved by aligning 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
- Align transmitter and receiver optimally to each other
- Install at highest possible locations (>1m above ground)
- 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.

Compatibility



All radio transmitters of the device series Fx3 (= FS3, FD3) and FV2 are compatible with the radio repeater FV2 R

Technical data

Radio frequency	433.92 MHz
Modulation	OOK PWM
Response codes	Factory setting: unlimited Special setting: max. 12 can be taught-in
Wireless range	50m in free field (1m above ground)
Operating voltage:	230 V AC / 50Hz
Power consumption:	0.6W
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	arbitrarily
External dimensions	43 x 43 x 18,5mm³
Weight	24g
RAL colour	grey 7035 / green 6029

Compatible devices: Radio receiver/transmitter of the FE3 / FD3 / FS3 series, radio repeater FV2 R

Order data

Item no.	EAN	Type	Designation
FV2R09	4 046929 101288	FV2 R	Radio repeater for FV2/Fx3 systems, 230V AC (FMD)

Accessories

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

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