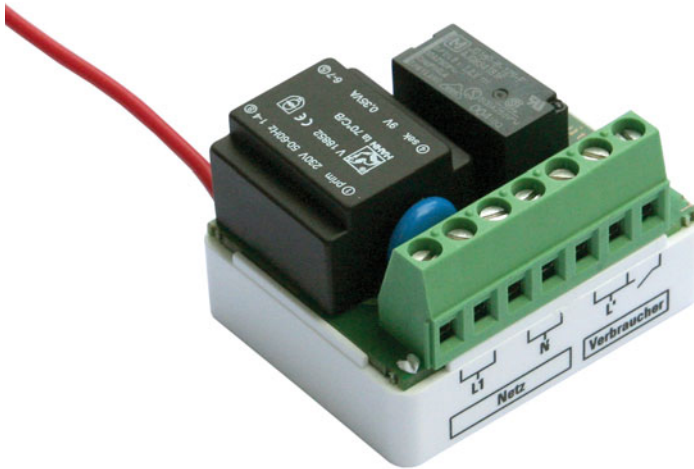




RF Relay UP

Wireless Relay

Technical Specifications and Installation Instructions



1. Product description

The **RF Relay UP** is a radio relay with a NO contactor. This is used with the WS1 Color, WS1000 Color or KNX WS1000 Color Control Systems or directly with the Remo 8 Remote Control.

If the **RF Relay UP** is used with a (KNX) WS1000 Color or WS1 Color, it can be configured in the control system menu as "Light", "Gutter heating", "Air conditioning", "Heating" or as "Supply air". With the setting "Relay" motors (such as for indoor fountains or pond pumps) can be switched on and off manually using the control system.

Functions:

- 1 dry relay contact (NO contact)
- Reception of the control signal via radio

1.0.1. Safety advice



If the wireless connection between the control unit and the wireless actuator is interrupted, connected devices can no longer be operated.

For that reason do not connect drives to the wireless actuator which could be hazardous to human life!



The dry contact is suitable for functional extra-low voltage but not for switching of protected extra-low voltage!

1.1. Technical specifications

Installation	Mounting
Protection rating	IP 20
Dimensions	ca. 38 x 47 x 29 (W x H x D, mm, plus flexible antenna)
Weight	approx. 60 g
Ambient temperature	Operation -20...+70°C, Storage -55...+90°C
Operating voltage	230 V AC
Output	dry contact, max. 2 A / 250 V capacity
Radio frequency	868.2 MHz

The following standards have been considered for the evaluation of the product in terms of electro magnetic compatibility:

- EN 60730-1:2000 +A1:2004+A12:2003+A13:2004+A14:2005 +A16:2007+A2:2008
- EN 301 489-1 V1.8.1:2008-04
- EN 300 220-2 V2.1.2:2007-06

The product has been tested for the above mentioned standards by an accredited EMV laboratory.

2. Installation and commissioning

2.1. Notes on installation



Warning, mains voltage!

National legal regulations are to be observed.

Installation, inspection, commissioning and troubleshooting of the device must only be carried out by a competent electrician.

Disconnect all lines to be assembled, and take safety precautions against accidental switch-on.

The device is exclusively intended for appropriate use. With each inappropriate change or non-observance of the instructions for use, any warranty or guarantee claim will be void.

After unpacking the device, check immediately for any mechanical damages. In case of transport damage, this must immediately notified to the supplier.



If damaged, the device must not be put into operation.

If an operation without risk may supposedly not be guaranteed, the device must be put out of operation and be secured against accidental operation.

The device must only be operated as stationary system, i.e. only in a fitted state and after completion of all installation and start-up works, and only in the environment intended for this purpose.

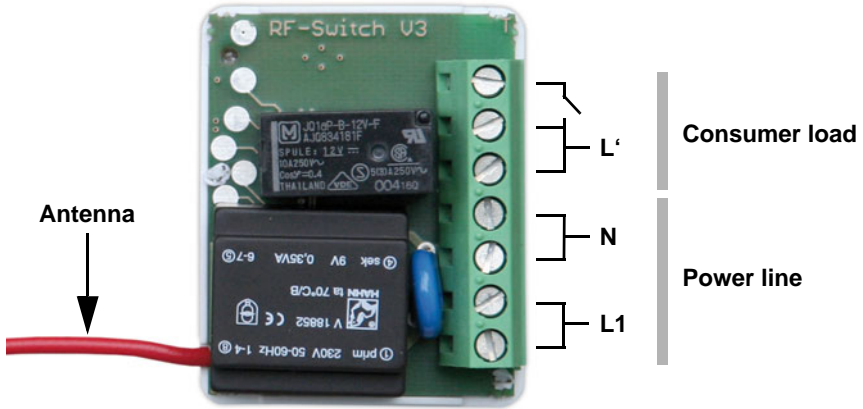
Elsner Elektronik does not assume any liability for changes in standards after publication of this instruction manual.

2.2. Notes on wireless equipment

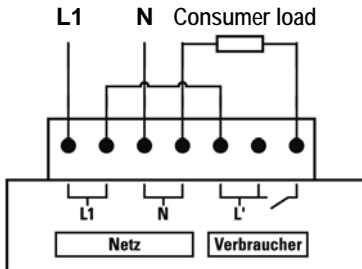
When planning facilities with devices that communicate via radio, adequate radio reception must be guaranteed. The range of wireless control will be limited by legal regulation and structural circumstances. Avoid sources of interference and obstacles between receiver and transmitter, that could disturb the wireless communication. Those would be for example:

- Walls and ceilings (especially concrete).
- Metal surfaces next to the wireless participants (e. g. aluminium construction of a conservatory).
- Other wireless devices and powerful local transmitters (e.g. wireless headphones), which transmit on the same frequency (868,2 MHz). Please maintain a minimum distance of 30 cm between wireless transmitters for that reason.

2.3. Circuit board construction / wiring

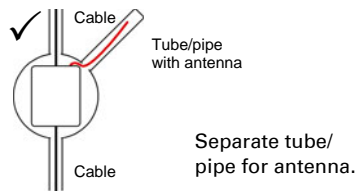
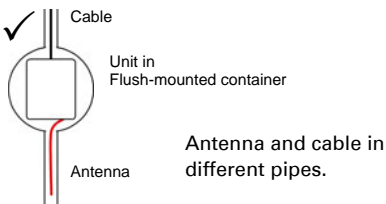


2.3.1. Wiring example

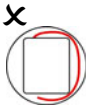


2.3.2. Antenna arrangement

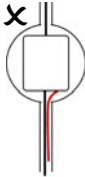
Good for wireless communication:



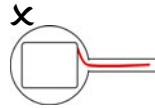
Bad for wireless communication:



Do not wrap!



Antenna and cable
are not parallel!



Do not arrange horizon-
tally!

2.4. Establishing a wireless connection

If several actuators are going to be operated from one supply cable, it is an advantage to teach each actuator separately *before* the installation.

1. Put the control unit/remote control into the teaching mode (observe the corresponding manual/data sheet).
2. Activate the actuator voltage supply. The actuator learns a connection to the control unit/remote control on its own 3 seconds after the mains voltage is applied. Only one motor control unit can be recognised at a time.
3. Note the feedback from the control unit ("Teaching completed").

2.5. Notes on mounting and commissioning

Device must not be exposed to water (rain). This could result in the electronic being damaged. A relative air humidity of 95% must not be exceeded. Avoid bedewing.