



HERMETIC BOX

Wi-R1S1-H

1-channel relay
in hermetic housing



www.fif.com.pl/fox/hermeticbox



F&F Filipowski L.P.; Konstantinowska 79/81, 95-200 Pabianice, PL
www.fif.com.pl; e-mail: biuro@fif.com.pl

System capabilities

- » Communication via home Wi-Fi network;
- » Remote access to devices from anywhere in the world via the Polish cloud F&F;
- » Integration with Google and Google Home voice assistant;
- » Ability to work autonomously, without a Wi-Fi connection;
- » Advanced timers and astronomical programmers, also with the possibility of connecting online calendars (e.g. Google, Outlook);
- » Convenient and free mobile app for Android and iOS;
- » High degree of freedom to personalise the application, including: grouping devices, building scenes, arranging views in folders, selecting device icons.

Properties

- » Hermetic housing suitable for outdoor installation;
- » 1-channel 230 V relay with up to 16 A [AC-1]* load capacity and with isolated NO output contact;
- » Relay contact suitable for loads with high initial current (e.g. LED lighting), up to 120 A/20 ms;
- » Possibility of connecting a local control button and setting its function;
- » Receiver control via mobile app and timers;
- » Built-in timer with power backup and own copy of the operating programme guaranteeing correct operation also without Wi-Fi connection;
- » REST API support enabling integration of the controller also with other home automation systems;
- » Built-in thermal protection;
- » External antenna for extended operating range.



* The maximum load capacity depends on the temperature and operating conditions of the unit. Prolonged operation at high load may lead to tripping of the thermal protection and disconnection of the controlled circuits.

Configuration

For the initial configuration of the Fox module, it is necessary to download and run the free Fox application available for mobile devices running the system:

- » Android, version 8.0 or higher;
- » iOS, version 14 or higher.

You can download the app directly from the stores:



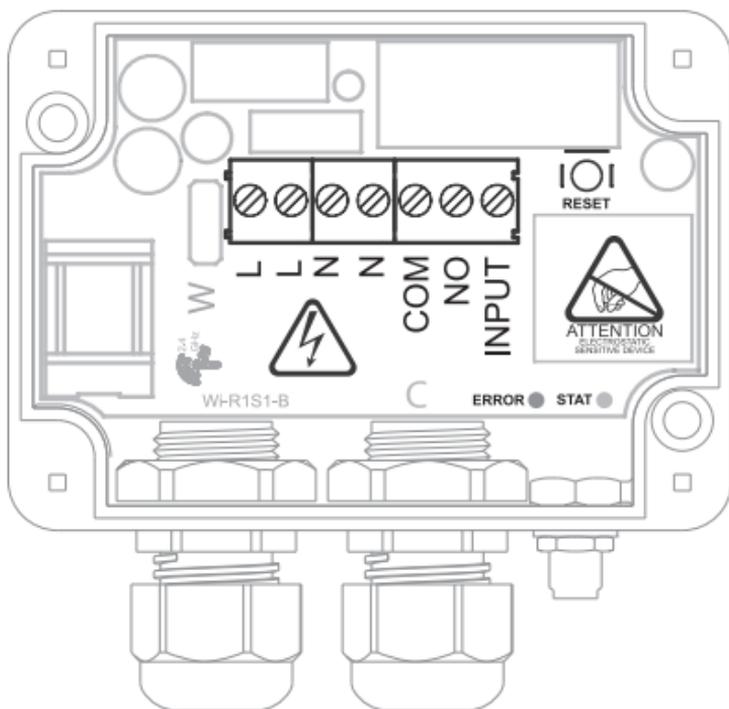
or via the website:

www.fif.com.pl/fox



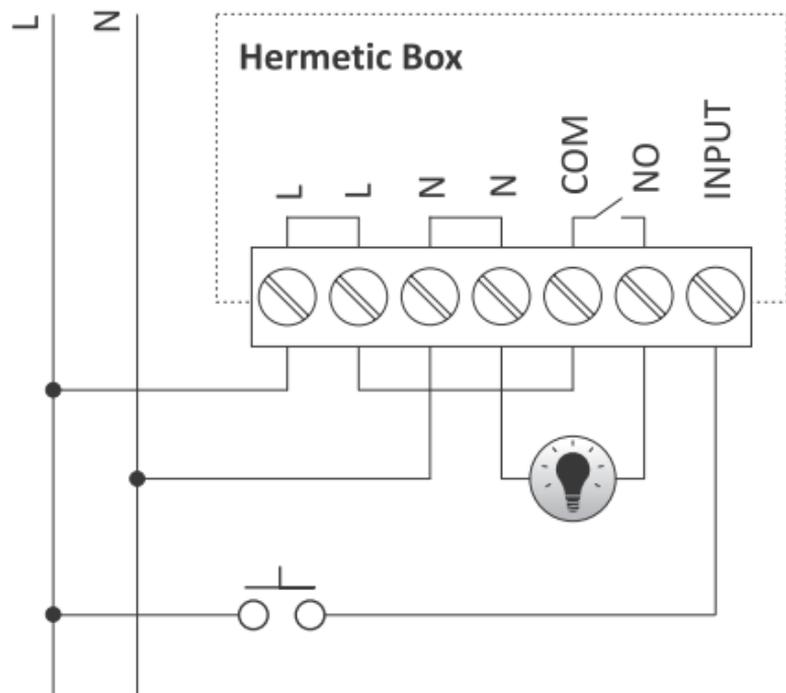
On the above page, you can also find detailed information on how to configure and operate the devices and the Fox mobile app.

Terminals description



- L power supply – phase wire
- L contacts connected inside the device
- N power supply – neutral wire
- N contacts connected inside the device
- COM COM contact of internal relay
- NO NO contact of internal relay
- INPUT connection an external push button

Wiring diagram





The use of monostable (momentary) buttons is recommended. If bi-stable buttons are used, at most one button can be connected to the input.



When the power supply is switched on, dangerous voltage may be present on some of the controller components. Therefore, it is absolutely necessary to avoid touching any components, apart from the RESET button.



The hermeticity of the enclosure depends largely on the final assembly method. Care should therefore be taken to ensure that the cables in the cable glands are properly clamped and that the front of the enclosure is properly tightened.



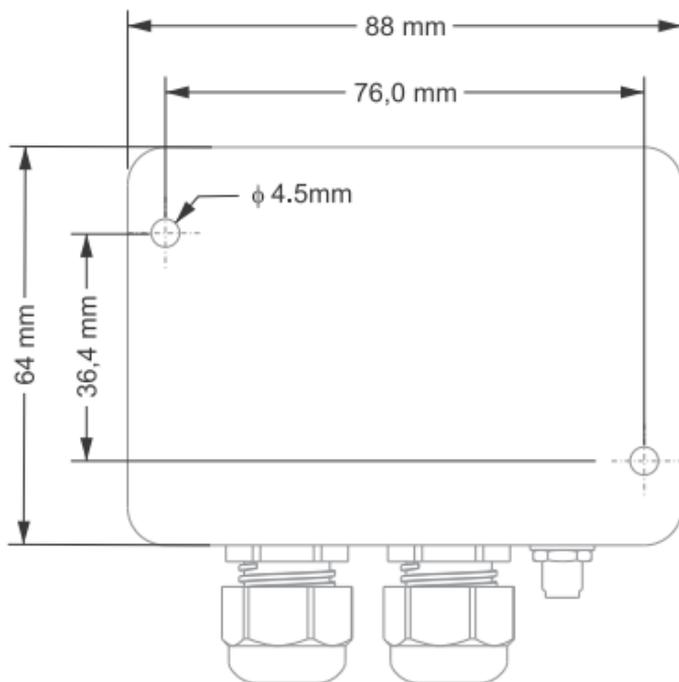
The relay contact is galvanically separated from the rest of the device.



The Hermetic Box controller is not suitable for use with illuminated push buttons.

Mounting

The controller housing is suitable for wall mounting with 2 screws. The arrangement of the mounting holes is shown in the following drawing:



To increase the unit's resistance to moisture penetration, installation with the cable exit and antenna socket facing downwards is recommended.

First launch

After connecting the device to the power supply, it is recommended to personalize the device.

Personalization is the process of assigning passwords to access the device and setting up a connection to the home Wi-Fi network and (optionally) remote access to the device via the F&F cloud.



Do not leave the device switched on without performing the personalization. There is a risk that another user of the Fox application will gain access to your device. If you lose access to your Fox device, follow the procedure described in **Restore factory settings** section.



For a detailed description of how to use the Fox application, see the context-sensitive help for the application (available under the "i" key in the mobile application) or go to www.fif.com.pl/fox/hermeticbox.

1. Start the Fox application.
2. Open the program menu (≡ symbol in the upper left corner of the screen) and select the **Start** command.
3. In the system selection window, press the wireless system icon  and follow the directions in the following screens:

- **Remote access**

Remote access configuration is necessary when you need to be able to access and control your Fox devices from outside your home when your phone app and Fox modules are not connected to the same local network. If you do not have a remote access account, create one by pres-

sing **Create Account** button and following the instructions displayed by the application. If you are adding an existing account to the application, you need to enter its parameters into the application: email address used to create an account in the cloud and a password to access the cloud and add more devices. In the first field (**Name**), enter the name under which the account will be displayed in the application. After entering the data, press the **Add** button.



Adding an account is a one-time action. The created account is visible in the list at the bottom of the screen and can be used to personalize subsequent devices. In this case, you can skip the **Remote Access** screen by pressing the **Next** button.



Remote access can be set independently for each device in a further customization step. Lack of remote access does not block the functionality of the device, it can still be accessed within the local Wi-Fi network.

– **Password manager**

Each Fox device allows you to enter two passwords: an administrator who has full configuration and device control rights, and a user who can control devices but without access to configuration settings.

First, add passwords to the password manager. One or two predefined passwords are then substituted for the personalized controllers. To add a new password to the password manager, you must:

- › In the **Enter name** field enter a description of the password under which it will be visible on the device manager list (such as Home administrator, living room user),
 - › In the **Enter password** field, enter the content of the password,
 - › Press the **Add** button.
-



The password is the key to access the device. Devices can be grouped using the same passwords, and permissions to these groups can be delegated in the form of an assigned access password. This way, by deciding which passwords go to which users, you can freely manage access to devices.



For more information on the role of passwords and their use in user management, go to: www.fif.com.pl/fox.



To remove user rights to a selected device, change the access passwords on it.



Deleting a password from the **Password Manager** will lose access to all devices using the deleted password.

– **Calendar manager**

Allows you to add links to online calendars that can be used to program the operating cycle of Fox controllers. More information can be found at: www.fif.com.pl/fox.

– **Search**

Based on the previously entered information (remote access and password list), the application will start searching for devices.



Before you start searching, you need to enable the Bluetooth function on your phone and agree to access the location. This will allow you to directly search for nearby Fox devices.

The app searches for:

- › available devices nearby that are in factory mode;
 - › devices available on your local network or connected to cloud accounts for which passwords were previously entered into **Password Manager**.
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The gray icon and gray device description indicate devices detected nearby via a Bluetooth connection. To add such a device click on the Bluetooth icon on the right side of the description and wait for the connection to be established. Once the connection is established, the icon and description turn white.

Pressing the "+" button adds device support to the application. For controllers in factory mode, the customization mechanism for the selected module is started here and the instructions in the **Device Configuration** window must be followed:

- › Enter the name under which the device will be displayed;
- › From the drop-down list of passwords, select the password for the administrator and user;
- › Set the parameters of the Wi-Fi network (network name and password) to which the device will connect;



Fox controllers can only connect to Wi-Fi networks operating in the 2.4 GHz band.

- › Set other configuration parameters as necessary: user password, remote access account, link to the programmers calendar, and the time zone and location of the device necessary for proper operation of the programmers;
- › After entering all the data, press the **OK** button and wait for the configuration to be sent to the device. The application will continuously display messages about the progress of saving the configuration and inform about possible errors;
- › When the configuration is saved correctly, the device disappears from the list of retrieved devices and is moved to the list of devices visible in the application.



If you personalize more devices, you can use the **Set Defaults** option at the top of the **Device Configuration** screen. Pressing this button will substitute all recently entered data (passwords, Wi-Fi settings, remote access, calendar, location and time zone) into the new device.

LED signalling

The status of the module can be directly assessed by looking at the STAT (green) and ERROR (red) lights inside the housing, on the lower right-hand side of the electronics board.



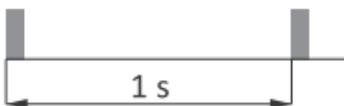
The grey color actually corresponds to the green LED and the black color to the red LED.



Controller
in factory mode



Connecting to
a Wi-Fi network



Connection to Wi-Fi
network established



No connection
to Wi-Fi network



Restoring firmware

Restore factory settings

In case of lack of access to the controller, for example due to lost passwords, it is recommended that you reset the access passwords and then reconnect and configure the controller using the Fox application.

To reset passwords:

1. While the controller is operating, press and hold the RESET button located inside the housing, on the right side of the terminal block. When this is pressed, the green STAT light will blink rapidly.
2. After approximately 5 seconds, the STAT light will go out and you should then release the RESET button.
3. Press the RESET button briefly, the green STAT lamp will flash again.
4. Press and hold the RESET button. After approx. 3 seconds, the previously lit green STAT light will flash. After another 3 seconds the red ERROR lamp will light up.
5. Release the button – after a few seconds the ERROR lamp will turn off, the STATUS lamp will turn on and the controller will restart.

6. Once this procedure has been completed, the access passwords and parameters for remote access have been cleared. You can now search for the device again in the application and personalise it again..

Technical data

power supply	165÷265 V AC
control input	
control voltage	165÷265 V AC
control pulse current	<1 mA
maximum load current (AC-1)	16 A
power consumption	
standby	<1,2 W
operation (relay on)	<2 W
communication	
radio frequency	2.4 GHz
transmission	Wi-Fi
radio power (IEEE 802.11n)	<20 dBm
receiver sensitivity	-98 dBm
terminal	2.5 mm ² screw terminals
tightening torque	0.4 Nm
working temperature	-30÷45°C
humidity	<90%
(no condensation of steam and aggressive gases)	
dimensions (without glands and antenna)	88×64×30 mm
mounting	surface
ingress protection	IP65

Warranty

F&F products are covered by a 24-month warranty from the date of purchase. The warranty is only valid with proof of purchase. Contact your dealer or contact us directly.

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 on www.fif.com.pl on the product page.