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User Manual

ability to control by voice commands with
Amazon Alexa and Google Home

doorbox PRO

WIRELESS DOORS, PEDESTRIAN DOORS, LOCKERS, DRAWERS CONTROLLER

SAFETY RULES

Connect only in accordance with the diagram presented in the manual. Improper connections may be dangerous, it can damage the controller, and loss of the warranty.

DANGER! Risk of electric shock! Even with the device turned off, the outputs may be live. All assembly work should be ALWAYS performed with the disconnected power circuit.

Connecting the device to a power supply that does not meet the quality requirements specified in EN 50081-1, EN 50082-1, UL508, EN 60950 will invalidate the warranty.

1 INSTALLATION - BASICS

The connection diagrams can be found at the end of the manual

- Disconnect the installation supply voltage before installing the controller. Remember that any mounting works should be carried out when the mains voltage is disconnected (switch off the mains fuse or disconnect the power cord from the mains socket).
- The controller should be installed in a place protected against accidential destroyment. It is not allowed to install the device in a place exposed to contact with oils, liquid fuels, solvents and caustic substances, as well as in places exposed to the direct action of high temperatures. Remember that metallic elements (wires, large fitting elements) have a negative influence on the range of the device, and consequently the comfort of use. It is recommended that the device be mounted in a stable and fixed position with the antenna upside. When installing the device outside of dry rooms, pay special attention to provide tightness of the rubber cable glands.
- Familiarize yourself with the diagram before starting the controller assembly. Pay special attention to the connector markings. Begin the assembly by connecting the power cables to the terminals marked with the symbol 'V~'. The polarity of the power connection ('plus' and 'minus') does not matter.
- Connect the electric bolt lock / electromagnetic lock circuit, between power supply, relay contacts and ground. The built-in relay has a potential-free normally open contacts, i.e. those in which a pair of contacts is open at rest and closes when the user presses the control button.
- The controller allows you to choose whether the accessories operate with 'common positive' or 'common negative' logic. The logic is selected by connecting either the '+' or '-' terminal to the terminal marked with the symbol 'C'.
- The controller provides feedback on whether a door or gate is closed, indicating either an open or closed state. To enable this functionality, a limit switch must be connected (e.g. a non-parameterized reed switch or an NPN/PNP inductive sensor). For NO (normally open) or NC (normally closed) sensors, the detection logic can be adjusted in the controller's app settings, as described later in the manual. According to the provided diagrams, a reed switch should be connected between the terminal marked 'S' and the opposite power pole (different from the one connected to terminal 'C'). For an inductive sensor, connect it to the power supply (the '+' and '-' terminals), and connect the sensor's output to terminal 'S'. The appropriate power pole should be connected to terminal 'C' ('+' for an NPN sensor or '–' for a PNP sensor).
- To open the door using an optional monostable (doorbell-type) switch, connect the switch circuit as shown in the provided diagrams, between the terminal marked 'I1' and the opposite power pole (different from the one connected to terminal 'C'). This type of switch is most commonly used as an exit button for a building or property, typically mounted on a wall or post.
- The 'I2' input can function as a door or gate 'doorbell'. It works by sending a notification or wirelessly controlling another Blebox device. You can connect a standard monostable (doorbell-type) button or the 'doorbell' output from an intercom to this input. By default, the controller is set to send a push notification to your smartphone. To receive notifications, make sure they are enabled.
- After making sure that the device is connected in accordance with the diagram and that there are no metal components near the controller which may accidentally cause short-circuit, start the device by turning on the power (turning on the mains fuse or connecting the power cord to the power outlet).

2 FIRST START

- Download **the free wBox application.** If you have an Android mobile device, you will find the application in the Play Store. For iOS devices the application is in the App Store.
- By using your mobile phone or tablet, connect it to the device wireless network. To do this, enter to your smartphone or tablet settings, then go to setting of the WiFi network and find the network name "doorBoxPro-xxxxxxxxxx" where xxxxxxxxxx is the serial number of the device. Connect to this network.
- Turn on the wBox application. You will see your device on the main screen. In order to add it to your application account, select "Add device to account". If you are the installer and do not want to assign the device to your account, select "Use only once".
- Test the work of the controller by clicking the door icon - the connected electric lock should activate and the door open.
- If a wall push-button has been connected, check its operation. By pressing the button, the electric lock should work.
- If a door position sensor has been connected (e.g., a reed switch or inductive sensor), check the app to ensure the door's open or closed status is displayed correctly. If the status shown by the controller is incorrect (reversed), go to Settings (gear icon in the top right corner of the screen), then open the "Device Settings" section. Click "Show advanced settings" and check whether the "Invert signal for 'closed' input" option is set correctly (this option should be enabled for NC-type sensors). If needed, choose a different detection method under "End position detection method". After making changes, click "Save", then return to the main panel by clicking the arrow in the top left corner. Finally, check again to confirm the door position status is displayed as expected.
- In the "Gate output type" field, the output behavior can be changed between the normally open output (NO - when the output is not shorten) or normally closed (NC - in other words at rest state pair of contacts is shorten, opens when the user press the control button). It is also possible to adjust the duration of the impulse in the output - between 0.1 sec. to 300 seconds - after a single press of the control button.

3 WIFI CONNECTION AND SERVICE CONNECTION (AP) SETTINGS

- Go to the WiFi network settings ("Settings" icon in the top right corner of the screen, "Connection" section), where you can connect the device to the home WiFi network to be able to control the device via it or from anywhere in the world. To do this, select the network name from the list of available networks and press "Connect". If required, enter your WiFi password. When connecting the device to the home network, the phone / tablet may disconnect from the device's network.
- You can also configure the network settings using a web browser. After connecting to the controller's wireless network, turn on the browser and go to www.blebox.eu

- After reconnecting the phone to the controller's WiFi network, check the "WiFi Client status" and "Remote access status" fields. The controller is equipped with a network connection supervision system which in case of problems with connection to the WiFi or the Internet will report the problem and its possible causes. If the network is working properly both fields will be set to "Connected".
- In order to communicate with the device from outside the local WiFi network, from anywhere in the world, via the wBox application, the device automatically connects to the BleBox cloud system service by default. The remote access system is fully encrypted and secure, the data are transmitted by European servers from reputable companies. It is possible to disable the remote access service - after clicking the "Configure" button, toogle the switch next to the "Remote access" option. Remember that disabling "Remote access" will result in no access to the controller from outside the local network as well as disabling the notifications and external integration systems, therefore we recommend that you leave this option enabled (default setting).
- After completing the WiFi network configuration, you can disconnect from the device network and connect the phone / tablet directly to your home WiFi network. Control from the wBox application will work in the same way as when the phone / tablet is connected to the device's network. If as a user you leave the local network, eg leaving your home or enclosing mobile data, the wBox application will signal this status as "Remote mode". In this case, you will have access to the device data, but for security reasons settings options will not be available.
- In the "Service connection (AP)" section, you can change the name and give the password of the WiFi network emitted by the device. Remember that changing the network name or password can cause disconnection with the device immediately after clicking the "Save" button, so you should reconnect to the WiFi network.
- It is also possible to completely disable the access point emitted by the device. To do this move the "Access point" slider to the off position and confirm the selection with the "Save" button
- Attention! If the controller does not have a stable connection to the WiFi network ("WiFi client status": "Connected", without any error warnings), restarting the access point will not be possible - in this situation, the only solution is to reset the controller to the factory settings. Disabling the access point is recommended only after the complete driver configuration and making sure that the entire system is working properly.

4 ACCESS MANAGEMENT

- Return to the controller settings. In the "Access management" section, you can also create accounts for the gate users. This provides additional protection for access to the controller. If you create users, the option of adding a controller to the wBox application and its control will be available only after entering the correct login and password.
- To add a new user, in the "Access management" section, press the "Add" button and then fill in the new window the "User name" and "Password" fields and press the "Save" button. If at least one user account is added, the controller will require logging each time the controller is added to the wBox application. Only after logging in the controller, it will be possible to control the motor.

5 TIME AND LOCATION OF THE DEVICE

- Go to settings, to the "Time and location" section. In the "Device time" tab, select your region and location from the list, confirming the changes with the "Save" button. The device will synchronize its time with the NTP time server (if the controller is in a WiFi network with Internet access) or will download the time from the phone / tablet. Since the controller does not have a clock backup battery, the clock resets itself when the power is disconnected. Hence, it is recommended that the controller is always connected to a WiFi network with internet access so that it can automatically synchronize its clock. This is especially important in controllers that have the function of working with the schedule.
- You can specify the location of the controller using your smartphone or tablet. In the "Device location" tab click the "Set location" button. The application will ask whether to share the location - allow. The approximate coordinates of your location should appear in the "Coordinates" box. If the "Set location" button flashes red with "Error" or the "Coordinates" field has not changed the value from "Not set" to numerical data there has been a failure in retrieving the location. You should then make sure that the phone / tablet has a GPS module and that the wBox application has access rights to download the location in the phone settings. Setting the location is especially important in controllers that have the function of working with the schedule, in which the schedule is based on sunrise and sunset.

6 SCHEDULE

- The controller has the ability to work according to a given schedule.
- Adding schedule entries can be performed by clicking the "Add item" button in the "Schedule" section of settings. You can select the days in which the task will be performed, the type of entry (at a specific time, or relative to sunrise / sunset - only having a correctly set location) and set the parameters of the task. The set tasks will be visible as a list, individual entries can be edited, deleted or temporary disabled.

TECHNICAL SPECIFICATIONS

supply voltage	12-24V AC/DC
energy consumption	< 1W
number of outputs	1
output type	relay, normaly open, separated
maximum load	5A 230V AC 5A 30V DC
maximum power	1150 VA @ 230V AC (1150W resistive load, eg. heater), 150W @ 30V DC
number of inputs	3
inputs type	logical, volt-free, shorted to the opposite pole depending on the potential of terminal C
input signal range	12 - 24V AC / DC
polarization inputs	any
galvanic isolation	yes
power output for accesories	12 - 24V DC / 100mA
dimensions	50 x 92 x 28 mm (without antenna), 85 x 230 x 28 mm (with the antenna located vertically), antenna length 197 mm

housing	made of polyurethane composition not containing halogens, self-extinguishing for thermal class B (130 °C)
protection level	IP54
mounting method	two oval mounting holes with dimensions of 18 mm x 3,5 mm (width x height) or self-adhesive element (tape)
antenna output	yes
antenna connector type	RP-SMA
antenna	omnidirectional, 5dB gain - included in the kit
communication standard	µWiFi, compatible with WiFi, 802.11g
radio frequency	2.4 GHz
transmission type	bi-directional, encrypted
API	open https://technical.blebox.eu/
mode	direct connection (as Access Point), Wi-Fi connection via a standard router, connection with access from any location in the world (requires only access to the Internet)
compatible devices and systems	iOS (e.g. iPhone, iPad), Android, Windows, macOS (ARM processors labeled M1 or newer)
controller operating temperature	from -20°C to +50°C
encryption	WPA2-PSK and authenticated encryption with associated data (AEAD)

INFORMATION ADDITIONAL

SOFTWARE UPDATE

In order to update the software in the controller it must be connected to the home WiFi network (see “WiFi connection settings” section) which is connected to the Internet. Go to settings, to the “Details, update and help” section and click the “Check for update” button. If an update is available the button changes to “Download new software”. After clicking it, wait about 1 minute without closing the interface or taking any other actions. The device will download the latest software and then reboot. You can read the device ID, hardware and software versions in the device details.

HELP

The latest versions of the manual, additional informations and materials about products are available on our website: blebox.eu

General questions: info@blebox.eu
Service and technical support: support@blebox.eu

Before contacting our service, if it is possible, prepare the “Service key” of the given controller available in its settings, in the “Details, update and help” tab. By clicking the icon, the key will be copied to the phone’s clipboard. Prepare also the “Installation key” of the wBox application, available in the main application menu, in the “Settings” tab.

Factory reset manual is available at: blebox.eu/start/reset

Attention! Factory reset does not remove the controller from the user account assigned to it. The device must be independently removed from the account - select “Manage devices” from the main menu of the wBox application, then select the device and click the “Remove device” button. Alternatively, you can log into the portal.blebox.eu system, go to the “Devices” tab, choose the device and select “Remove device” from the top-right “Actions” menu.

for more information visit our website

www.blebox.eu

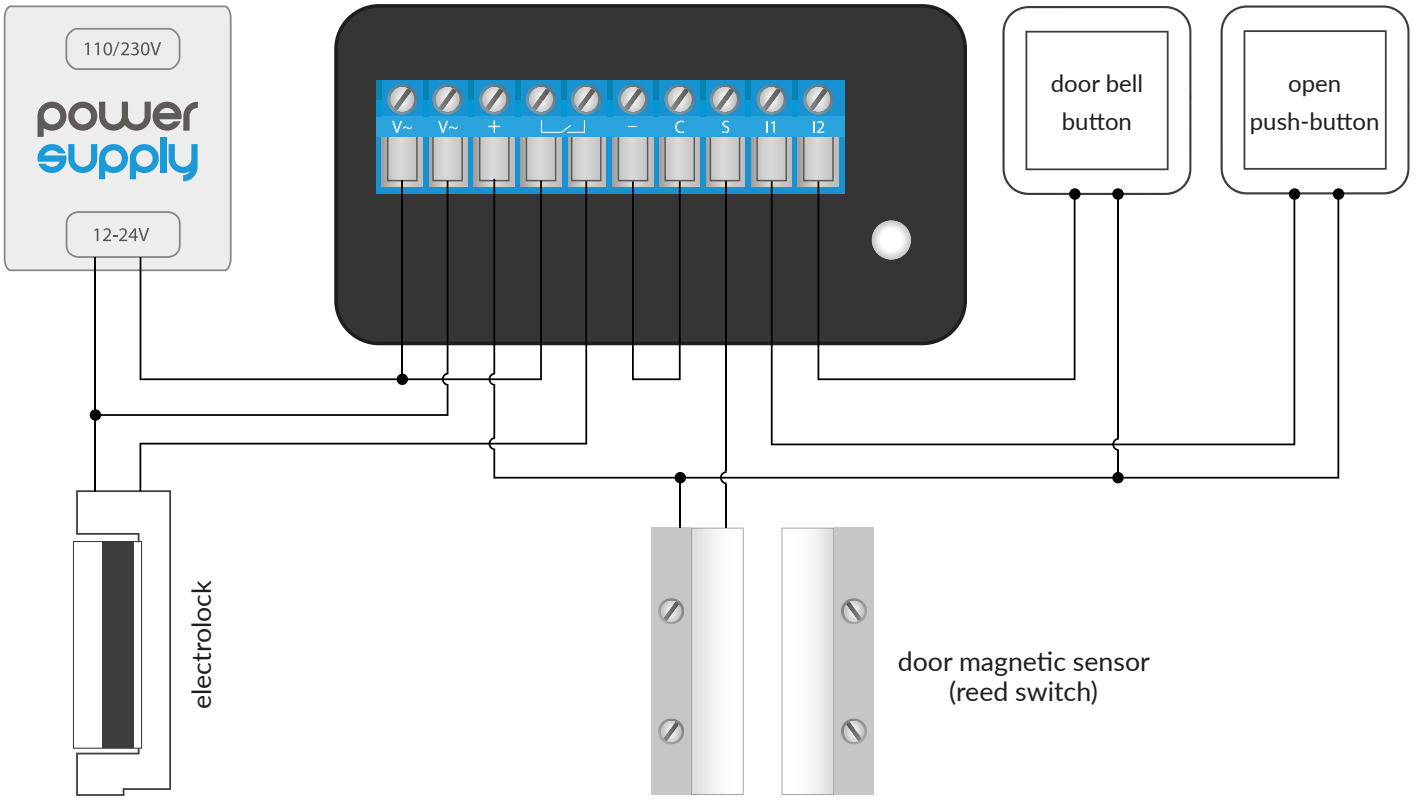
or send us an email to: info@blebox.eu

support is available at support@blebox.eu

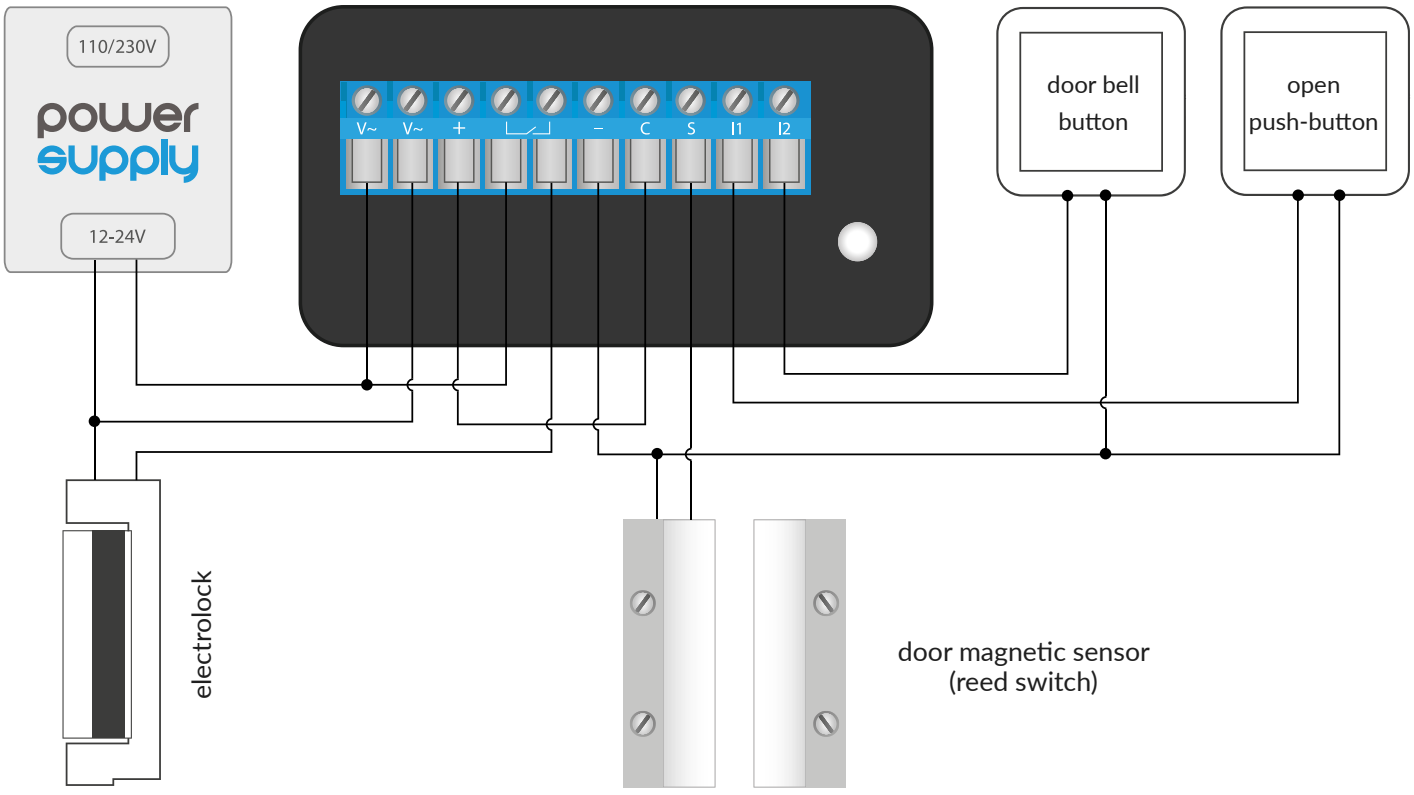
made in Europe

Connection diagrams

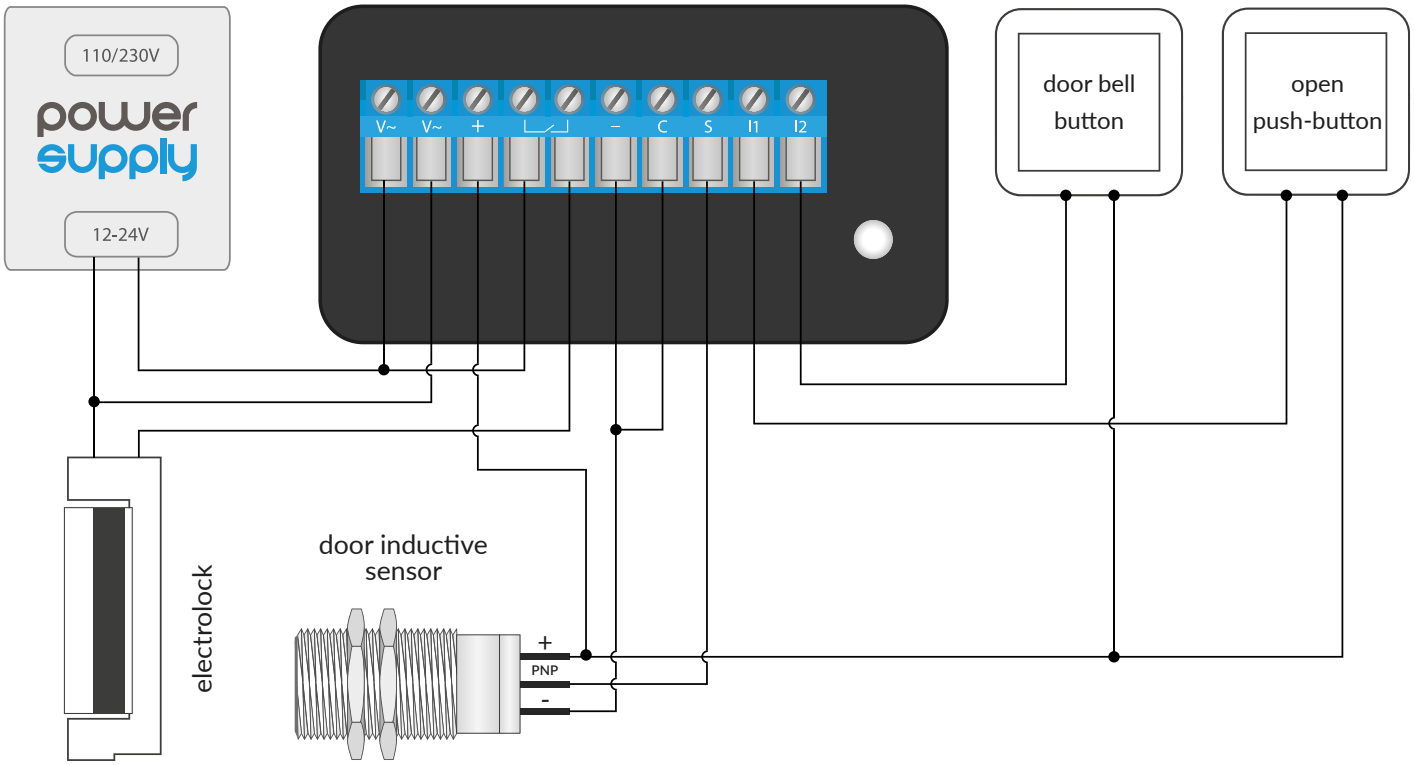
1. Common negative, magnetic sensor (reed switch)



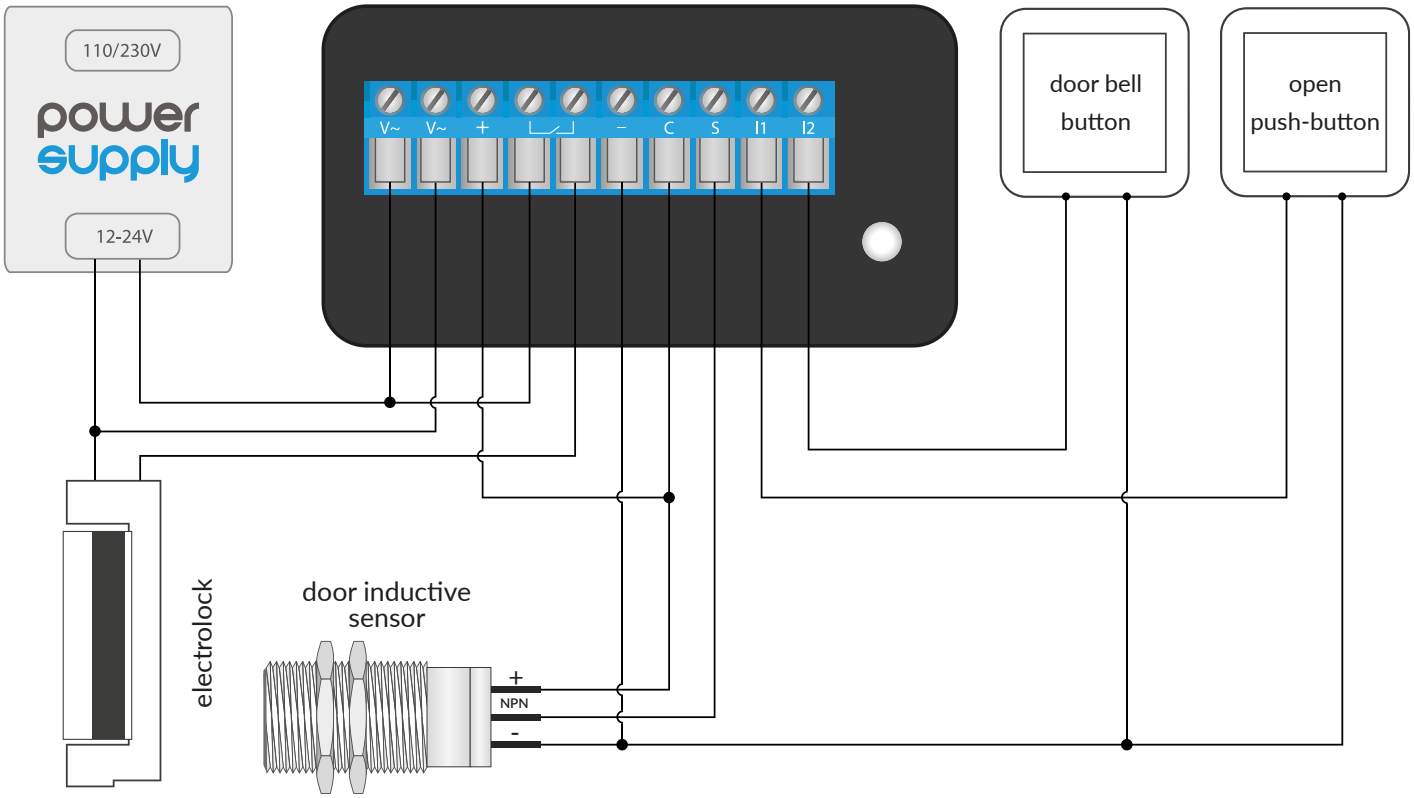
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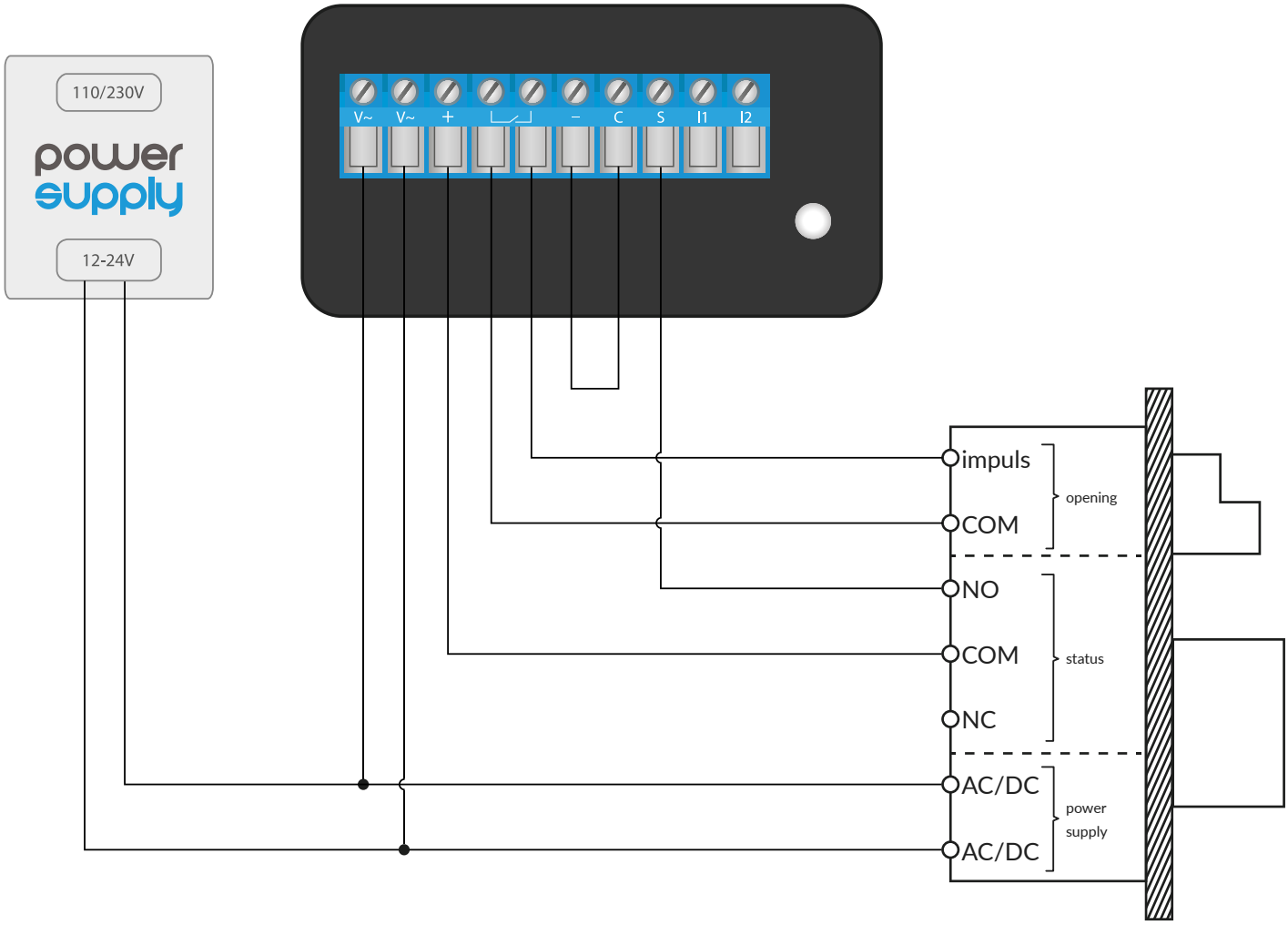
3. Common negative, PNP inductive sensor



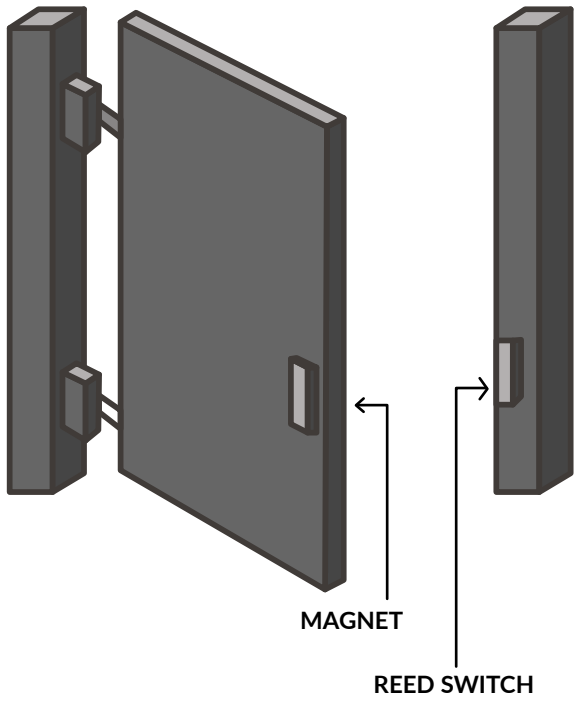
4. Common positive, NPN NO inductive sensor



5. Example connection diagram for an electric lock with a separate volt-free pulse contact



6. Installation diagram: reed switch sensor



7. Installation diagram: inductive sensor

