



control with μ WiFi technology from any place in the World



GARAGE, SLIDING AND SWING GATES AND DOOR CONTROL-
LER WITH AN EXTERNAL ANTENNA

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.



Podłączenie urządzenia do zasilacza nie spełniającego wymogów jakościowych określonych w normach EN 50081-1, EN 50082-1, UL508, EN 60950 skutkuje utratą gwarancji.



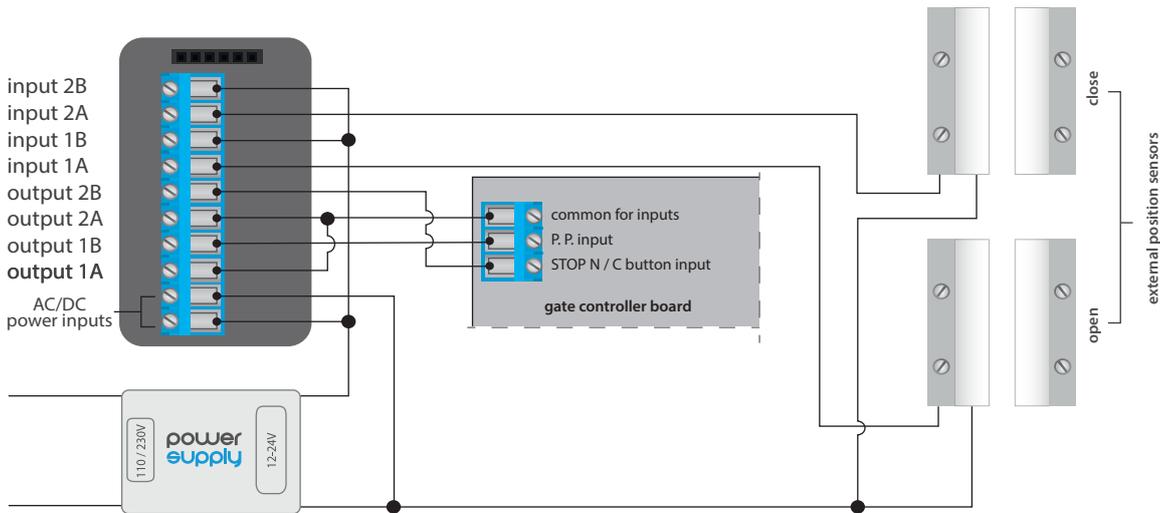
Stosować systemy bezpieczeństwa opisane normą PN-EN 13241 określającą wymagania związane z bezpieczeństwem i wymagania eksploatacyjne dotyczące bram i barier.

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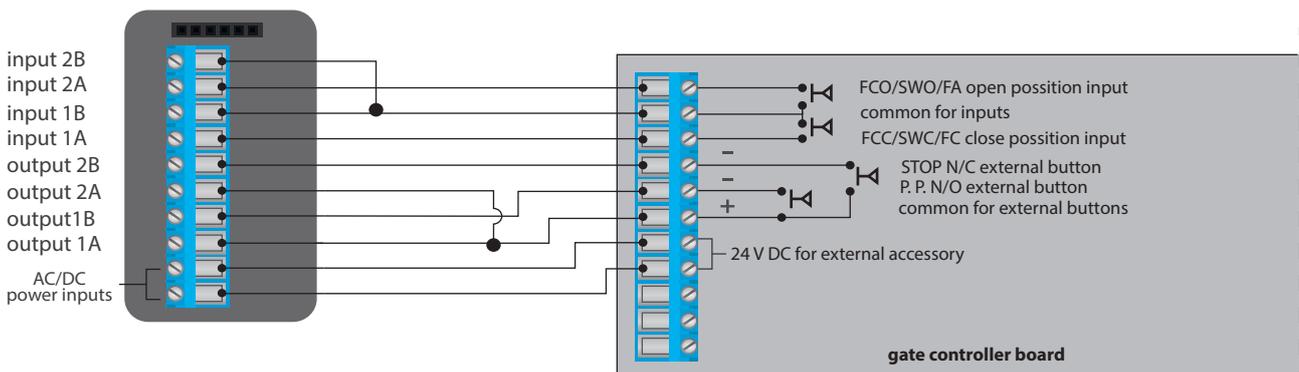
INSTALLATION - BASICS

- 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 accidental destruction, eg. screwed to the fence pole or inside the enclosure of the controlled device. Remember that metallic elements (wires, housing parts) 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.

GENERAL CONNECTION DIAGRAM



CONNECTION DIAGRAM TO TYPICAL CONTROL PANEL



- Read the diagram and then proceed to install the controller. Pay particular attention to the designation of the controller connectors. Start by connecting the + 12V / + 24V power wires (red or black with a white dotted line) and GND (black).
- Connect the outputs controlling the engine control panel. Depending on the control panel, will be necessary to connect one or two outputs. The controller output O1 is destined for control in the open / stop / close mode. The O2 output is an auxiliary output, applicable in the control panel requiring a connection stop circuit when the motor works, or may be used as an additional function, e.g. "wicket" if the control panel is equipped with this functionality. The connection polarity of the controller outputs is not significant.



Pay attention to the maximum output current capacity - the control current cannot exceed 20 mA per output. Overloading the output will activate the built-in polymer fuse!

To receive feedback from the controller, signaling the gate position of "Open" / "Intermediate position" / "Closed", connect the limit switches (eg reed switches or inductive sensors) according to the general diagram. The IN1A/IN1B and IN2A/IN2B input pairs do not have a specific polarity, they are galvanically separated from the rest of the controller and operate fully independently of OUT1/OUT2 output pairs.



The meaning of detected limit states in the IN1 / IN2 inputs (which of the IN1 or IN2 inputs indicates the closed position and which the open position) can be changed in the controller settings menu in the option "Replace inputs".

Advanced information for installers, regarding inputs, when connecting a gate controller for which the diagram is not available.

For some gate control units it is possible to use the signals from the control units' original electromechanical sensors for end state detection, in a parallel or serial connection. The range of permissible voltages on individual pairs of inputs is 12 - 24V AC/DC.

In the case of a parallel connection, the IN1A/IN1B input should be connected in parallel to the existing gate closing sensor (most often marked FCC, SWC, FC) while the IN2A/IN2B input should be connected in parallel to the existing gate opening sensor (most often marked FCO, SWO, FA), polarity connecting the inputs does not matter. In a parallel connection the measurement current of the gate control unit is divided between the existing factory sensor circuit and the controller measurement circuit, which in some control units with low-power measuring output may result in incorrect operation of the control unit, manifested by the lack of response when reaching the end position. Be careful during the tests so as not to damage the gate mechanics.

In serial connection, cut one of the wires of the existing gate closing sensor (most often marked FCC, SWC, FC) and connect the ends of the wires to the IN1A/IN1B input, similarly cut one of the wires of the existing gate opening sensor (most often marked FCO, SWO, FA) and connect the ends of the wires to the IN2A/IN2B input, the polarity of the inputs is irrelevant. In serial connection, in some control panels with low-power measuring output, the voltage drop obtained on the controller may not be sufficient to recognize the end position, so the correct gate position will not be displayed in the gate preview in the wBox application.

In the advanced settings of the controller, described later in this manual, you can change the limit switch detection algorithm, depending on the nature of the current flowing through the inputs. In "Method 1", the end state is detected when direct or alternating current flows between IN1A and IN1B and not between IN2A and IN2B. Similarly, the opposite state will be detected when no current flows between the IN1A and IN1B connectors and there will be no current between the IN2A and IN2B connectors. In "Method 2" the end state is detected if only direct current flows between IN1A and IN1B and there is no direct current or alternating current between IN2A and IN2B. Similarly, the opposite state will be detected when there is no direct current flow between the IN1A and IN1B connectors and there will be no direct current flow between the IN2A and IN2B connectors. Any other configuration of the current flow is equivalent to the intermediate position.

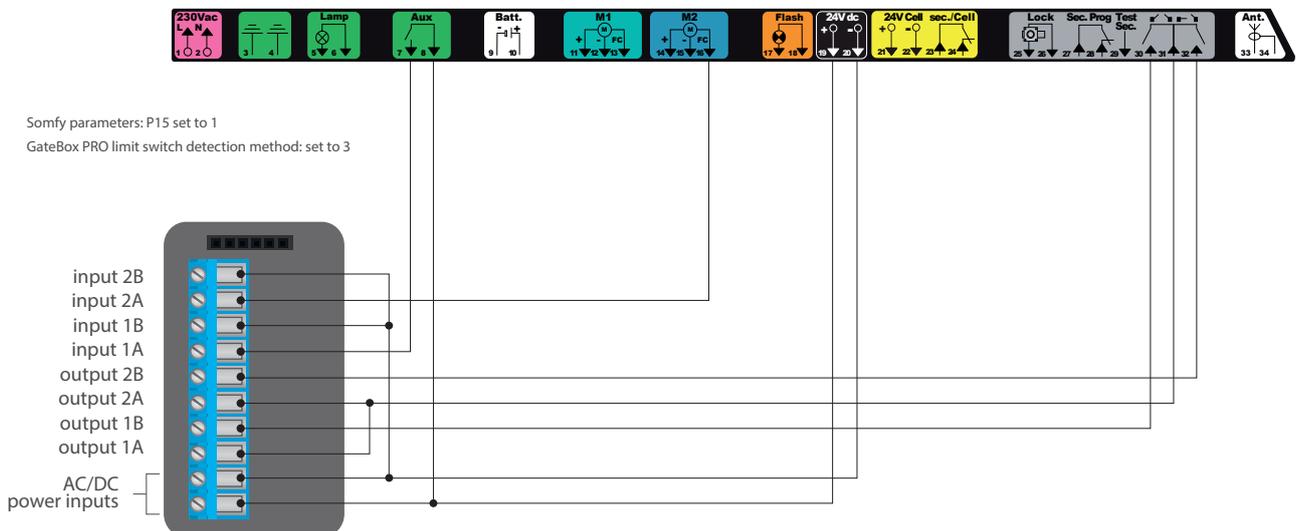
Some door control panels do not have the usual electromechanical limit switches. On the other hand these control units have outputs for signaling the reaching of the end position (without distinguishing whether it is closed or open) and an auxiliary output that can be configured as determination of the closed position. An example of this type of control unit is Somfy Control Box 3S RTS, the connection diagram of which is shown in the relevant drawing. In the advanced settings of the controller, described later in the manual, change the limit switch detection algorithm to "Method 3" and in the gate control unit set the behavior of the auxiliary output to "gate open indicator". In "Method 3" the "Intermediate position" state will be detected if no current flows through input IN1A/IN1B (the current flow through input IN2A/IN2B is not taken into account). The "Open" position will be detected when direct or alternating current flows through both inputs IN1A/IN1B and IN2A/IN2B. The "Closed" position will be detected when direct or alternating current flows through the IN1A/IN1B input and there is no current flow through the IN2A/IN2B input.

The door status detected by the controller, depending on the selected limit switch detection method, is presented in the table below:

	OPEN		CLOSED	
	IN1A/IN1B	IN2A/IN2B	IN1A/IN1B	IN2A/IN2B
METHOD 1	DC or AC	0	0	DC or AC
METHOD 2	DC	0 or AC	0 or AC	DC
METHOD 3	DC or AC	DC or AC	DC or AC	0

where DC - direct current flow, AC - alternating current flow, 0 - no direct and/or alternating current flow.

After making sure that the device is connected in accordance with the diagram After making sure that the device is connected in accordance with the diagram tally 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).



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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 "gateBoxPro-xxxxxxx" where xxxxxxx is the serial number of the device. Connect to this network.
- Open the wBox application. A device will appear at the top of the screen. To add it to the application, click on "+" on the right side of the name. To pre-configure the controller, click on the default device name.



You can also set the configuration using the web browser of your phone / tablet. After connecting to the wireless network of the controller, turn on the browser and go website www.blebox.eu

- Go to "Settings" (icon in the upper right corner of the screen), go to the "Gate settings" section and select the appropriate option in the "Gate type" field. Then, depending on your control panel, select the function of the second (auxiliary) output. After saving the settings, go to the main panel by clicking the arrow in the upper left corner. Test the controller work of by clicking the gate / door icon - the control panel should force the motor to move.
- In the "Gate settings" section, in the field "Address (URL) of the MJPEG stream" you can enter the URL stream of the camera IP which supervise the motor.
In case you need to make changes in the advanced controller settings, click on "Show advanced" button. Will appear additional options.
- 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 the contact pair is shorten, opens when the user presses the control button). It is also possible to adjust the duration of the impulse in the output - between 0.1 sec. to 15 seconds - after a single press of the control button. The option "Outputs swap" allows you to correct the order of pairs of wires without switching them again, for example when the gate control wire has been connected to the O2 output instead of under O1.
- Go to the main panel by clicking the arrow in the upper left corner. If the motor position sensor circuit has been connected, test the gate work - click on the gate / door icon, the control panel should force the motor to move. Note the blue border around the icon. If the motor is in an intermediate position, the icon's border will be half blue and half gray. The limit position in the "Open" state is indicated by a gray border and in the "Closed" state by a blue border.
- If you need to change the advanced settings of the controller associated with the inputs, return to the controller settings, go to the "Gate settings" section and then click the "Show advanced" button. Will appear additional options. If despite the correct wiring, the controller can not detect the motors position, is possible to change the detection method of the limit switches connected to IN1 / IN2 inputs. If the state of the motor position is detected inversely, i.e. the motor is physically in the closed position and the visualization indicates that it is open, it means that the pairs of wires in the IN1 / IN2 inputs have been changed, so the option should be changed in the field "Inputs swap (IN1, IN2)" to "Enabled".

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ACCESS POINT AND WIFI NETWORK SETTINGS

- Once you turn on the controller for the first time, you can proceed to its further configuration. Being connected to the WiFi network emitted by the device, in the control panel of the wBox application select the device, then go to "Settings" (icon at the top-right corner of the screen).

- You can change the name of the device that is displayed in the wBox application. In addition, you can change the name and password of its generated WiFi network. Remember that changing the network name or password will disconnect the device immediately after you click the "Save" button, so re-connect to the device using the newly assigned network name and password.
- You can add the controller to your home WiFi network to control it through this home network or from anywhere in the World. To do this, in the "Connect" settings section, select a network name from the list and press "Connect". If is required, enter the WiFi network password. During the connection of the controller to your home network, the phone / tablet may be disconnected from the network. In this case, you will need to reconnect your phone / tablet to the controller network.
- Please remember that in order to control the device outside the local WiFi network, from anywhere in the World by using the wBox application, the option "Remote access enabled" in the controller settings must be set to "Yes".
- Once you've finished configuring the WiFi network, you can disconnect your phone/tablet from the controller network and connect your mobile device directly to your home WiFi network. The control from the wBox application will work the same way as when the phone / tablet is connected to the controller network. If the user leaves the local network, for example, leaving home or using the mobile data, the wBox application will signal this state as "Remote mode". In this case, the devices can be controlled, but for security reasons settings are not available.

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ACCESS MANAGEMENT

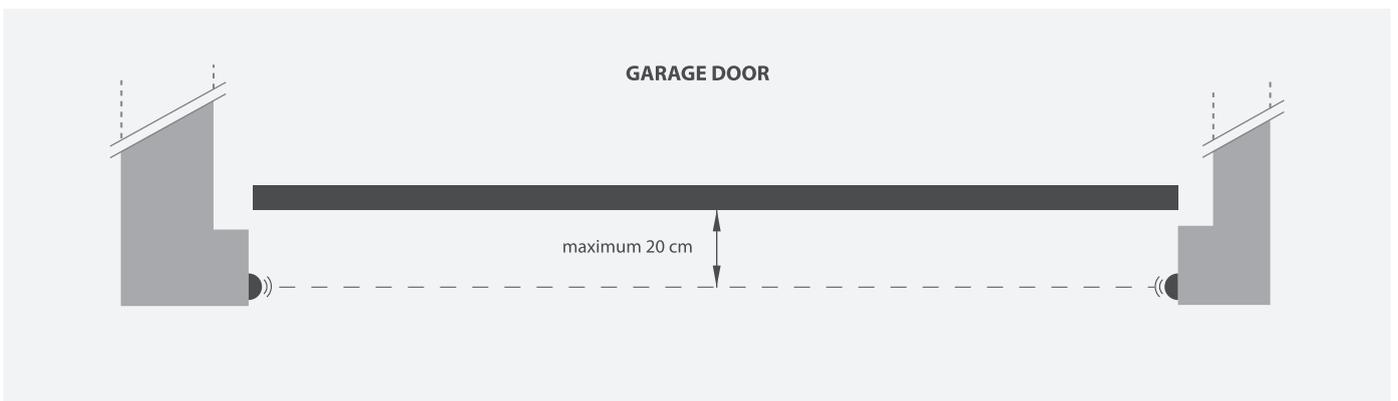
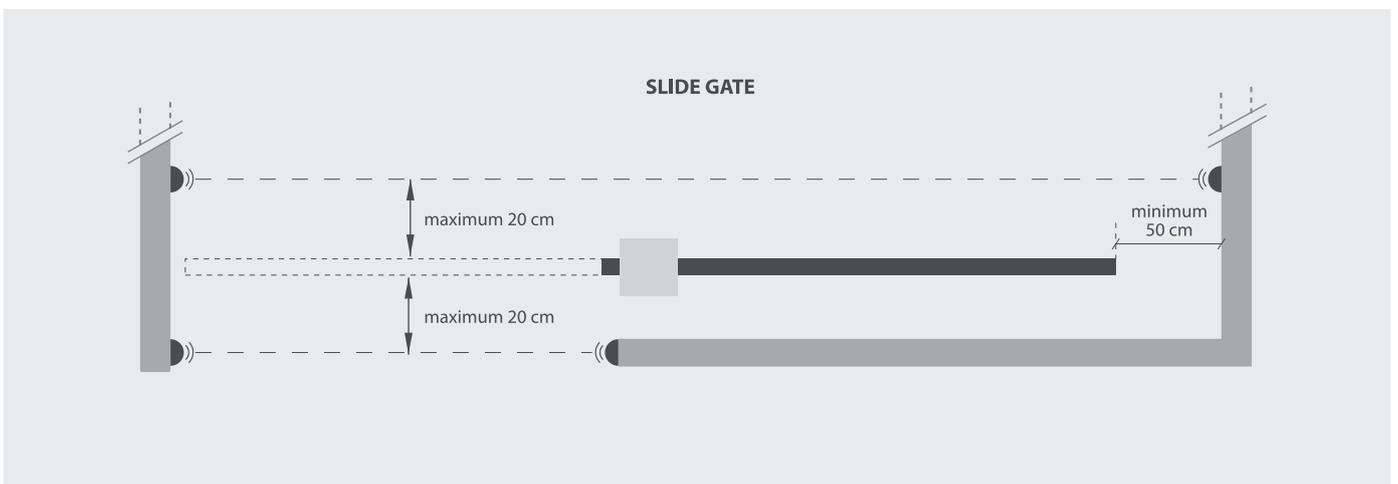
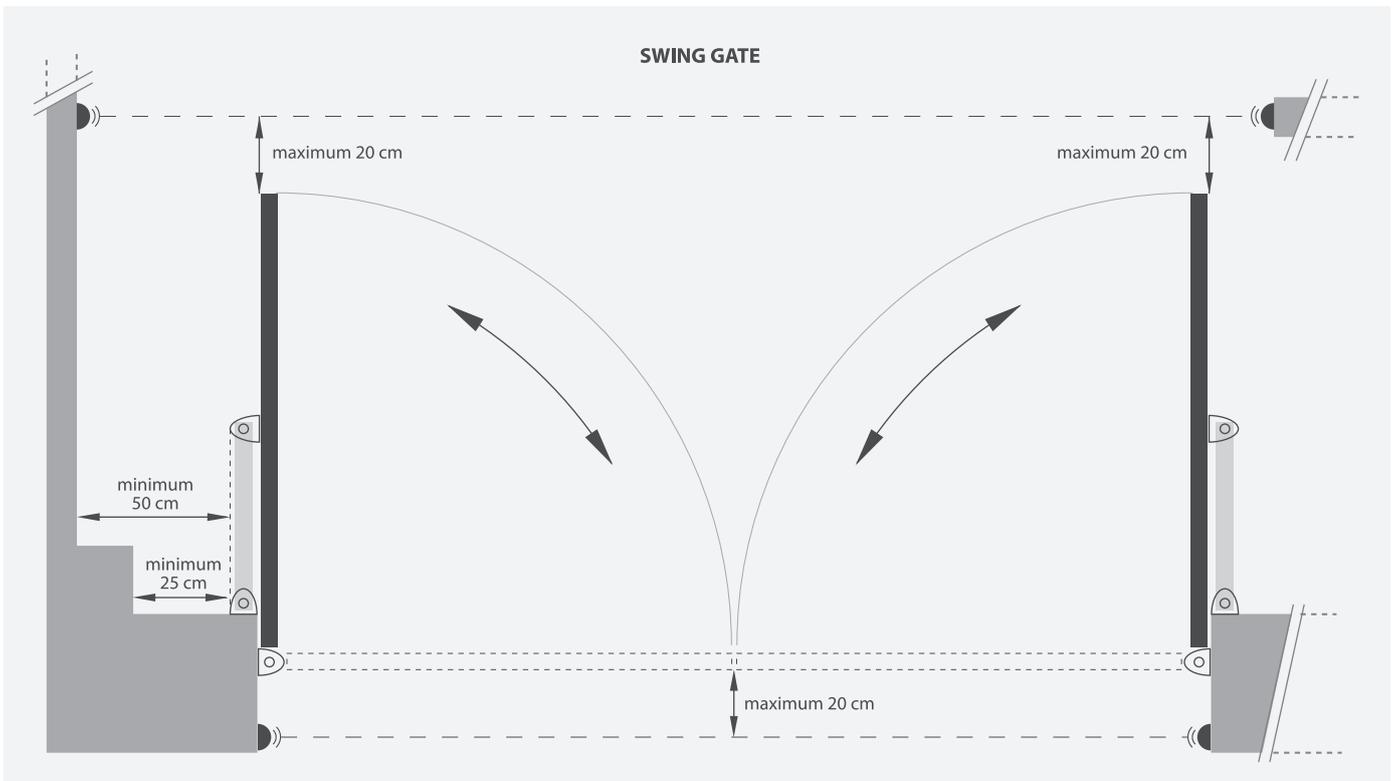
- Powróć do ustawień sterownika. W sekcji „Zarządzanie dostępem” możesz dodatkowo utworzyć konta dla użytkowników napędu. Stanowi to dodatkowe zabezpieczenie dostępu do sterownika. Jeżeli utworzysz użytkowników, możliwość dodania sterownika do aplikacji wBox, a przez to sterowanie napędem, będzie dostępne jedynie po podaniu prawidłowego loginu i hasła.
- Aby dodać nowego użytkownika, w sekcji "Zarządzanie dostępem" naciśnij przycisk "Dodaj" a następnie w nowym oknie wypełnij pola "Nazwa użytkownika" i "Hasło" i wciśnij przycisk "Zapisz". Jeżeli zostanie dodane choć jedno konto użytkownika, sterownik będzie wymagał zalogowania się, każdorazowo w momencie dodawania sterownika do aplikacji wBox. Dopiero po zalogowaniu się do sterownika, możliwe będzie sterowanie napędem.

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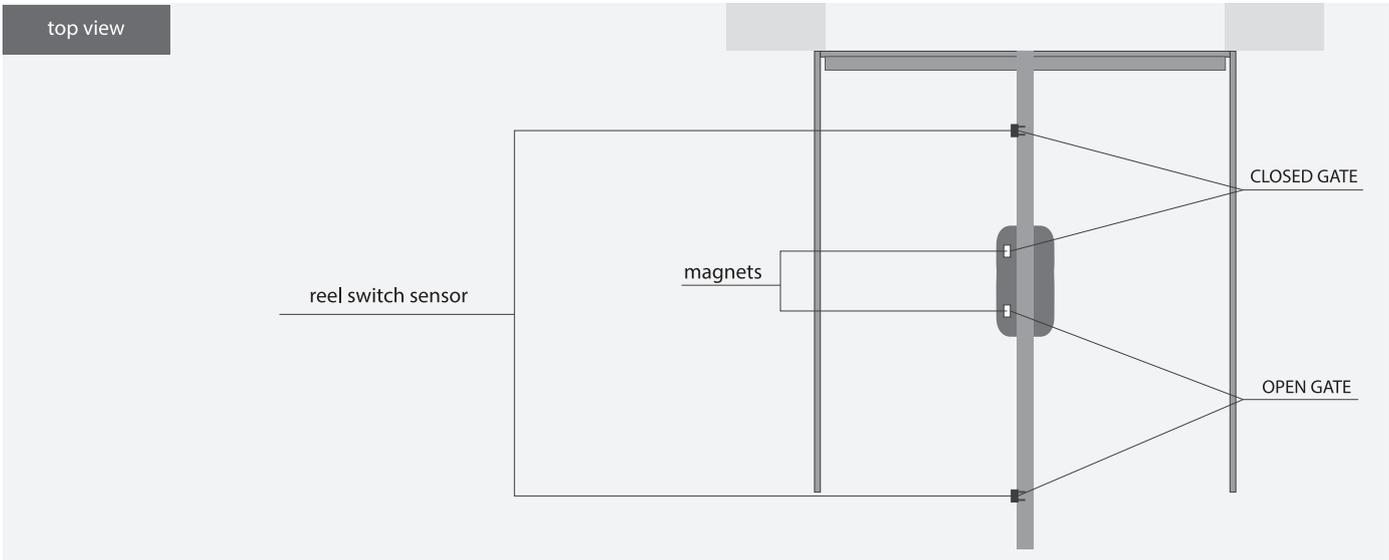
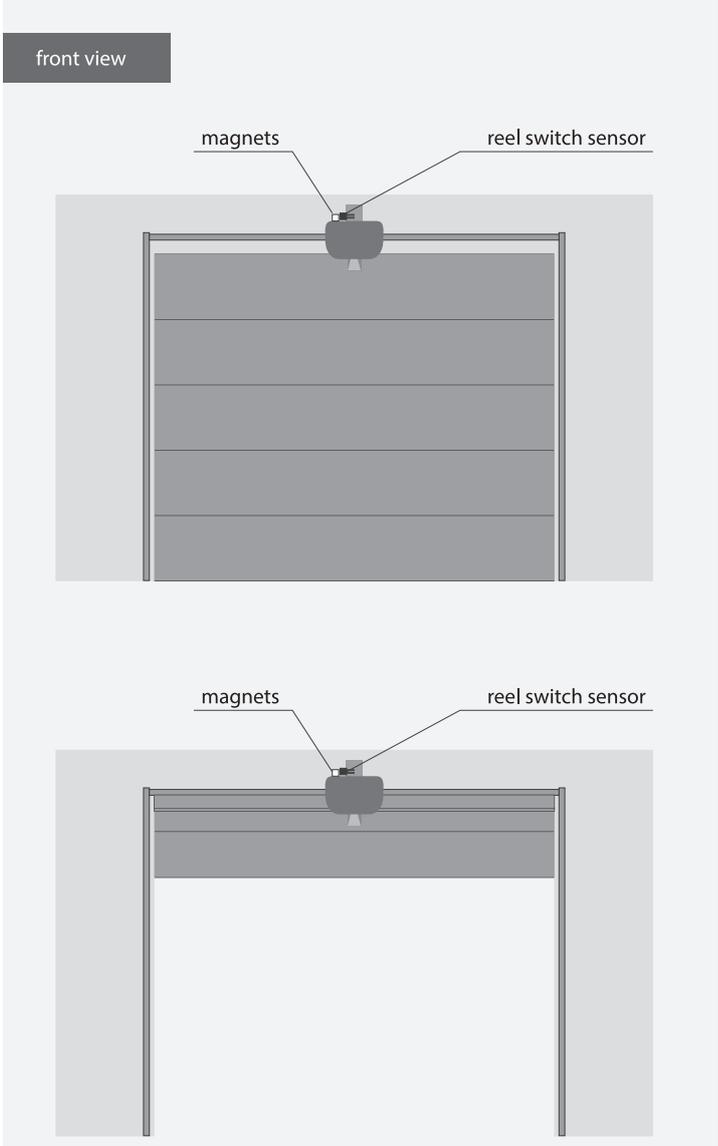
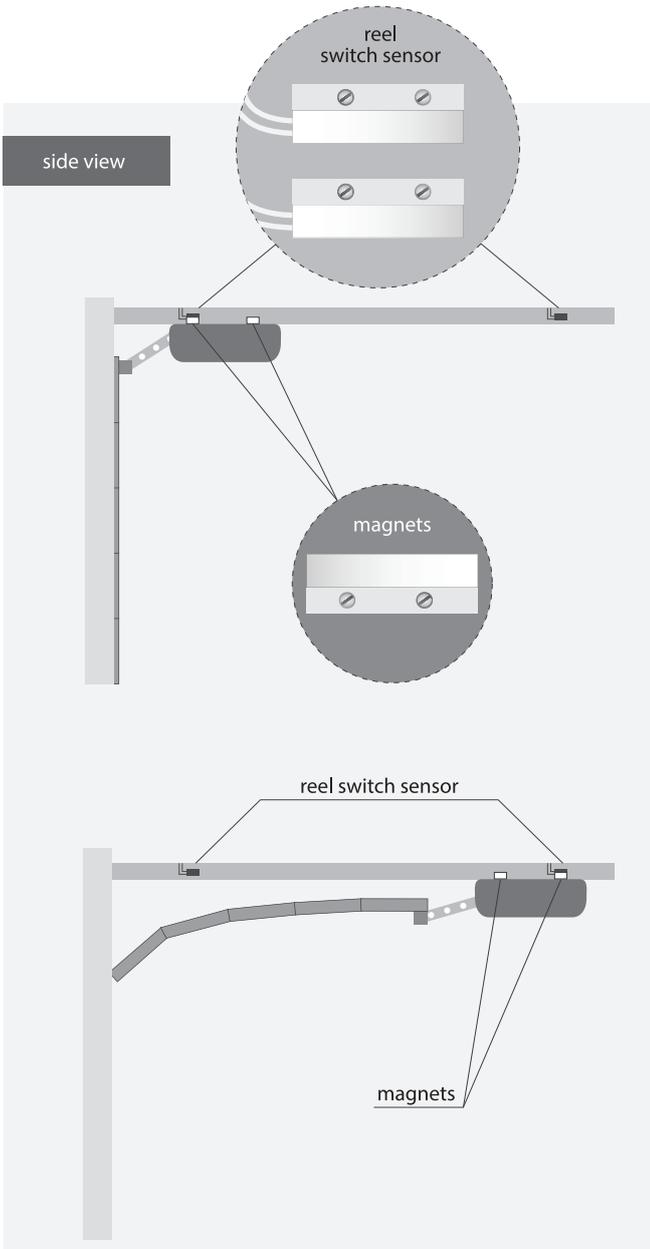
VOICE ASSISTANTS

- The controller can work with the following voice assistant systems: GoogleHome and Amazon Alexa. The condition for proper operation is the correct operation of the limit switches (correct signaling of the gate status: open / closed / intermediate position). Moreover, the "Remote access" option must be enabled and no user accounts can be created in the "Access management" section (the device cannot be additionally secured). A detailed description of the configuration with individual assistants is described in the relevant instructions available on the blebox.eu website

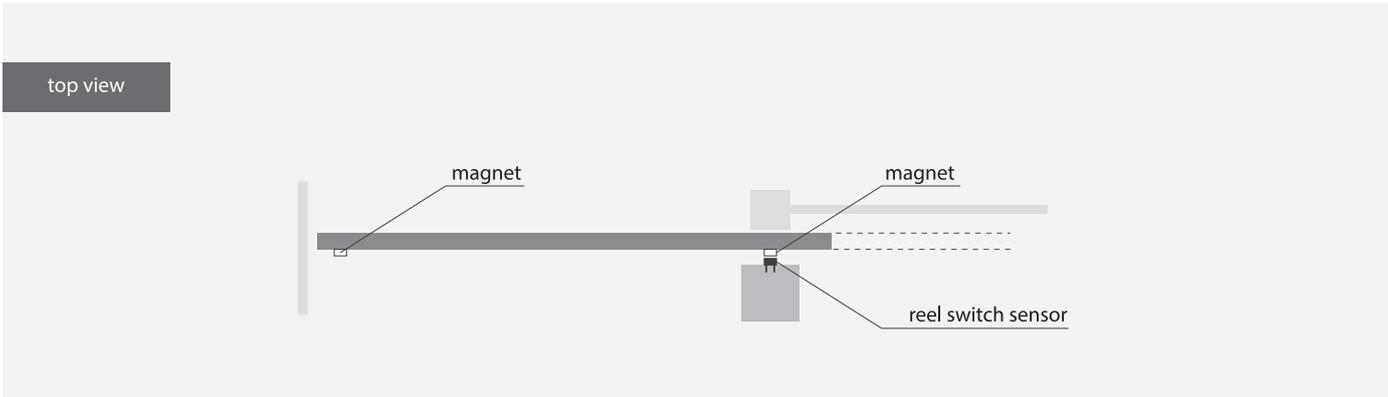
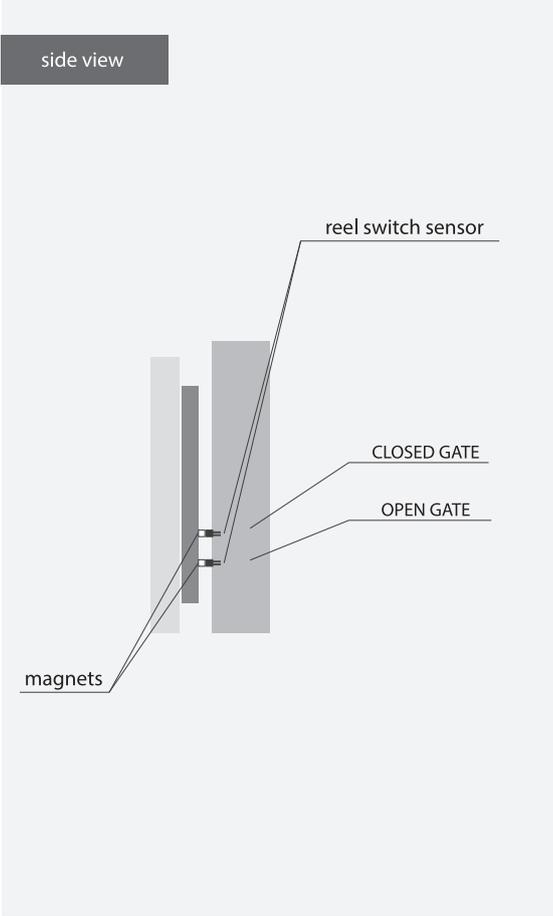
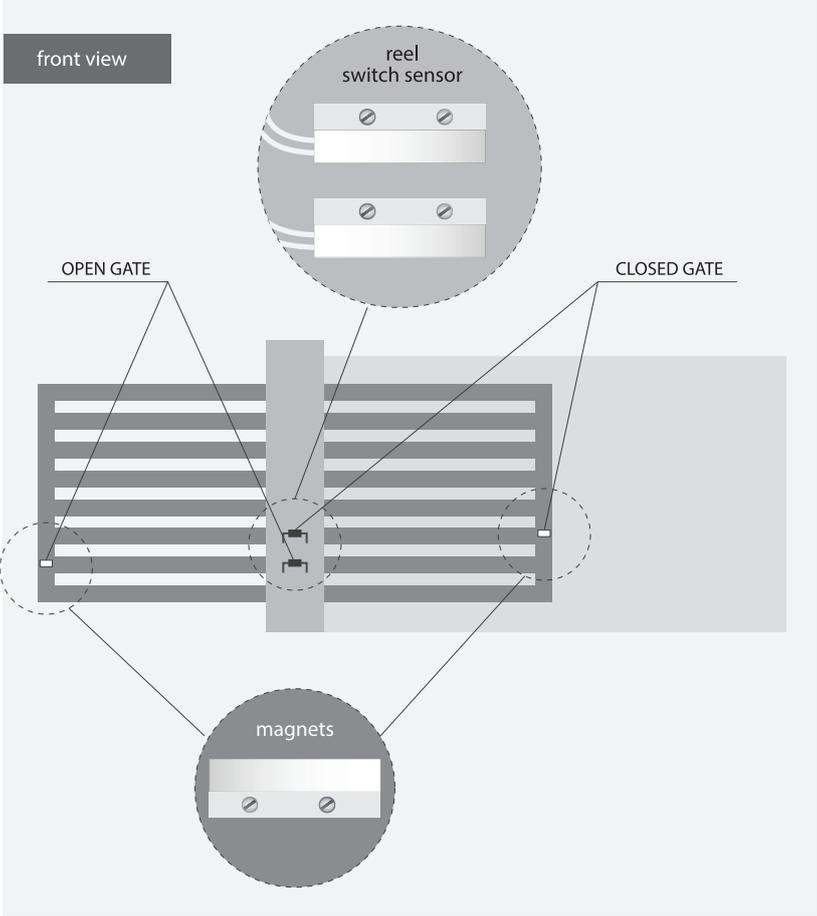




CONECTION EXAMPLE OF REEL SWITCH FOR SECTIONAL DOORS



CONNECTION EXAMPLE OF REEL SWITCH FOR SLIDING GATE



TECHNICAL SPECIFICATIONS	
supply voltage	12-24V AC / DC
energy consumption	< 1 W
number of outputs	2
output type	open collector, pulse
maximum load	20mA
number of inputs	2
inputs type	logical
voltage range	12 - 24V AC / DC
galvanic isolation	yes
housing	plastic, covered with a polyurethane composition not containing halogens, self-extinguishing for thermal class B (130°C)
protection level	IP54
antenna output	yes
antenna connector type	RP-SMA
antenna	omnidirectional, 5dB gain - included in the kit
dimensions	50 x 92 x 28 mm (without antenna), 85 x 230 x 28 mm (with the antenna located vertically), antenna length 197 mm
transmission type	bi-directional, encrypted
radio frequency	2.4 GHz
communication standard	µWiFi, compatible with WiFi, 802.11g
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	Apple iPhone, Apple iPad, iPad Mini, Android, computers and mobile devices supporting HTML5
controller operating temperature	from -20 to + 50°C

ADDITIONAL INFORMATION

SOFTWARE UPDATE

To update the software in the controller, connect it to your home WiFi network (see "Access Point and WiFi Network Settings" section) which is connected to the Internet. Go to "Settings" (icon at the top-right corner of the screen) and click the "Get new firmware" button in the final section on settings. Wait about 1 minute, do not close the interface and don't perform other actions. The device will download the latest software. The software version number, hardware version and device identifier can be read at the bottom of the settings screen.

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

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