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TIGERLINK

VENUS

APPLICATION GUIDE

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Advanced settings menu

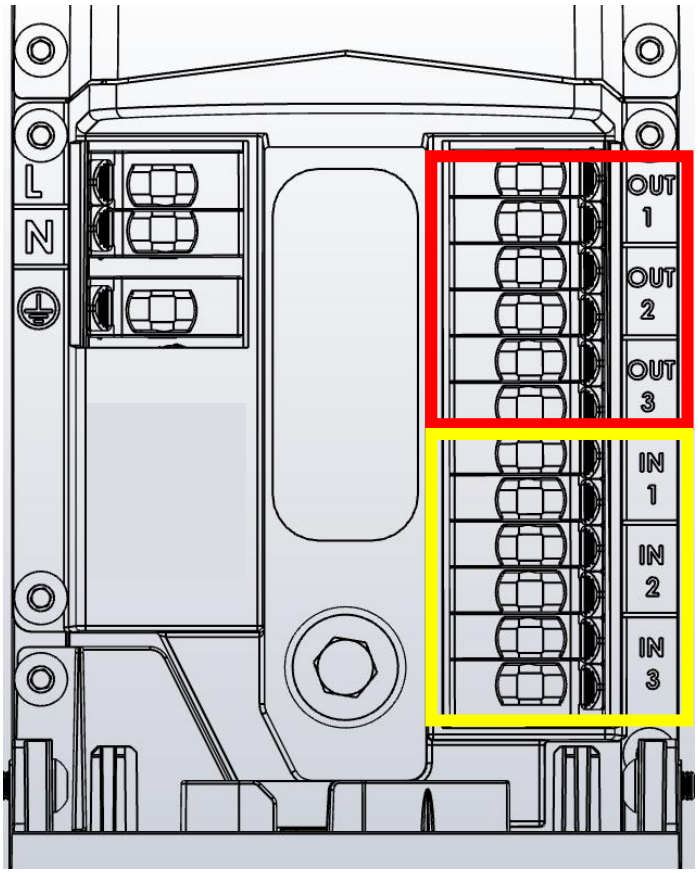
The settings described in this document can be changed during the first installation of the Venus motor or after reconnecting to the device via the mobile application.

When configuring for the first time, the device will allow us to go to the advanced settings after performing the first calibration.

If you want to change these settings of a Venus that has already been configured, select “update an existing gate configuration”, connect to the motor, select and skip the basic gate configuration steps to directly go to advanced settings.

Output signal

Signal to power and control external devices (e.g. electric strikes, maglocks, Slimstone-2, etc.). The output signal for each output connector is 24V DC, with a maximum current of 1.6A (38W) per output. The total of the 3 outputs should stay below 2A (48W), otherwise Venus will switch off the output terminals. Those terminals have colors: red (+24V), black (0V).



Input signal

Signal to controls the motor (e.g. push button, Slimstone-2, intercom, etc.). Venus input terminals are a dry contact. This mean that the control signals should be free of any voltage. If the control signal is not a dry contact, it is mandatory to use a relay between the control device and Venus. In the advanced settings menu (app), there is a possibility to change the input as NO or NC signal type. Those terminals have a green color.

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Venus manual or automatic mode

Manual mode

This mode should be selected if the lock or keep is mechanical and the Venus is unable to control the lock or keep. The user must manually open the gate and make an opening movement, after a few degrees, this will be detected and Venus automatically opens the gate up to the desired opening angle. This function is called “Push&Go”, which is enabled by default, but it could be switched off through the advanced settings menu in the app. This mode automatically closes the gate after a set pause time (5 seconds by default).

Important information:
When calibrating the motor, retract the daybolt to not have mechanical blockage during calibration, otherwise the calibration step will fail.



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Automatic mode

This mode should be selected if an electric lock or keep is used and connected to the output connector of the Venus connection box. Please remember that Venus outputs only support 24V DC. The user doesn't need to manually open the gate. Venus takes full control over the opening and closing cycle. Controlling the gate can be done by;

- Pushbutton,
- Programable keypad (e.g. Slimstone-2, Slimstone-X),
- Video or audio intercom
- Other type of accesscontrol device

This automatic mode also has the "Push&Go" function enabled by default, which allows the end-users to manually open the gate to trigger an automatic opening cycle. This mode automatically closes the gate after the set pause time (5 seconds by default).

Important information:
During the calibration step, it will automatically detect which type of electric lock or keep is connected to the device (Fail-Open or Fail-Close). More explanation of the names you can find here.

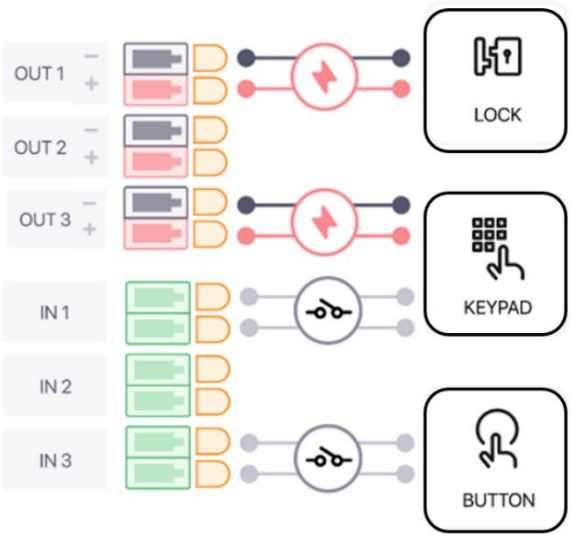


Default connection settings for automation mode:

- Output 1: Lock
- Output 2: Unused
- Output 3: 24V AUX (powering the accesscontrol device)

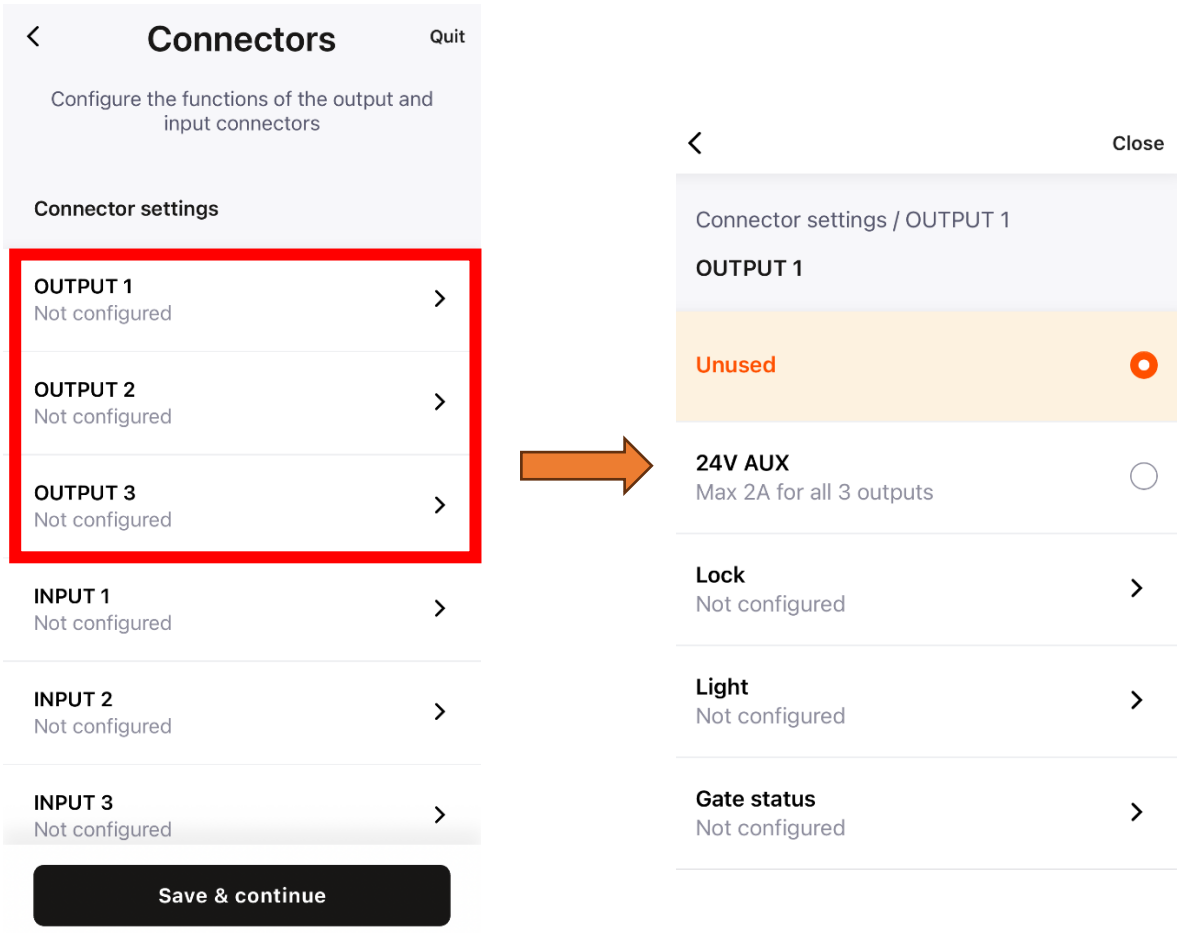
- Input 1: Control device, "Normally Open" contact for a control device (e.g. Pushbutton), "open and (automatically-)close" command is default
- Input 2: Unused
- Input 3: Control device, "Normally Open" contact for a control device (e.g. Keypad), "open and (automatically) close" command is default

- "Push&Go" function is active



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Output connectors – 24V DC



The Venus can provide controlled power through the output connectors to external devices (e.g. electric strikes, maglocks, Slimstone-2, etc.). The output signal for each output connector is 24V DC, max. current 1.6A (38W). The total of the 3 output connectors should stay below 2A (48W). If the Venus outputs are overloaded, the device automatically shuts down all terminals to prevent a short circuit. If this occurs, the device goes into error mode:

- Integrated warning light will blink 5Hz with full brightness.
- The Venus automatically retries re-enabling the outputs every few seconds. The outputs remain disabled as long as the overload or short circuit is present.

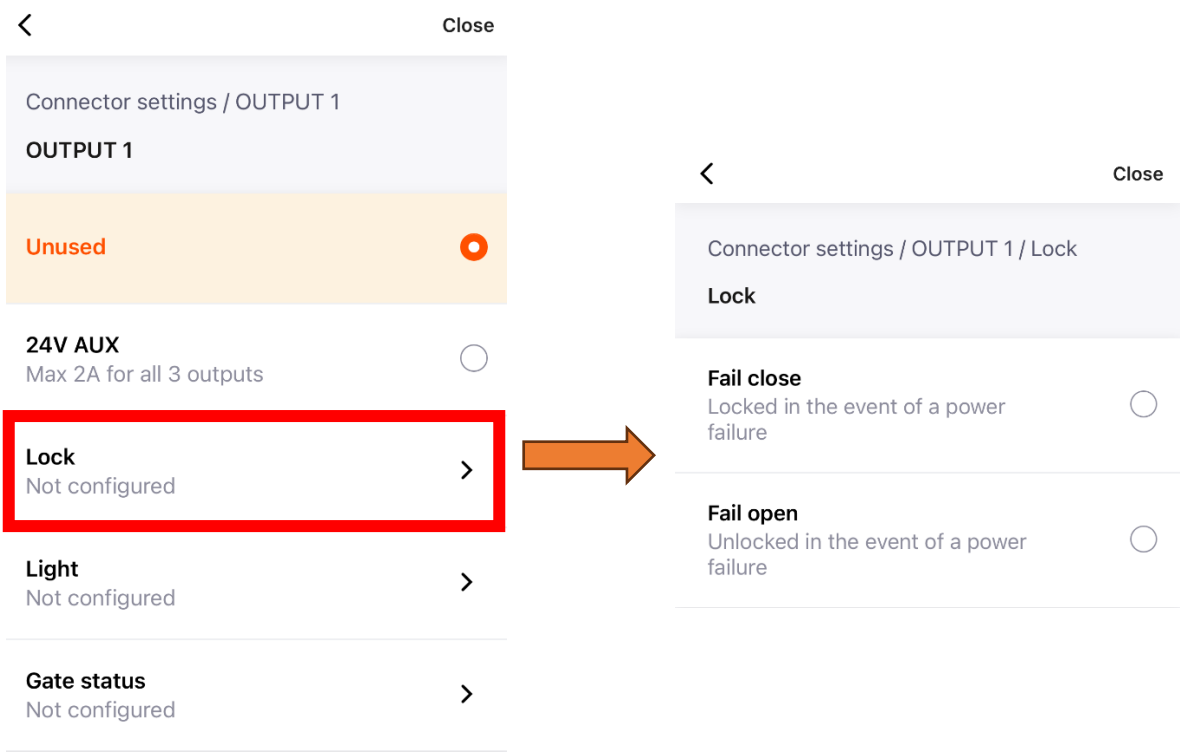
Unused

This option does not assign any configuration or feature to the terminal. This option is set as the default for all outputs if the Manual operating mode is selected. The Automatic mode has pre-defined options, these are explained: here.

24V AUX

Provides constant power (24V DC) to an external output. Total output power on all terminals is 48W. This setting can be used to power external lights or an access control device. Make sure that these devices can function with 24V DC.

Lock



Important:
This option is automatically configured during the initial calibration process.

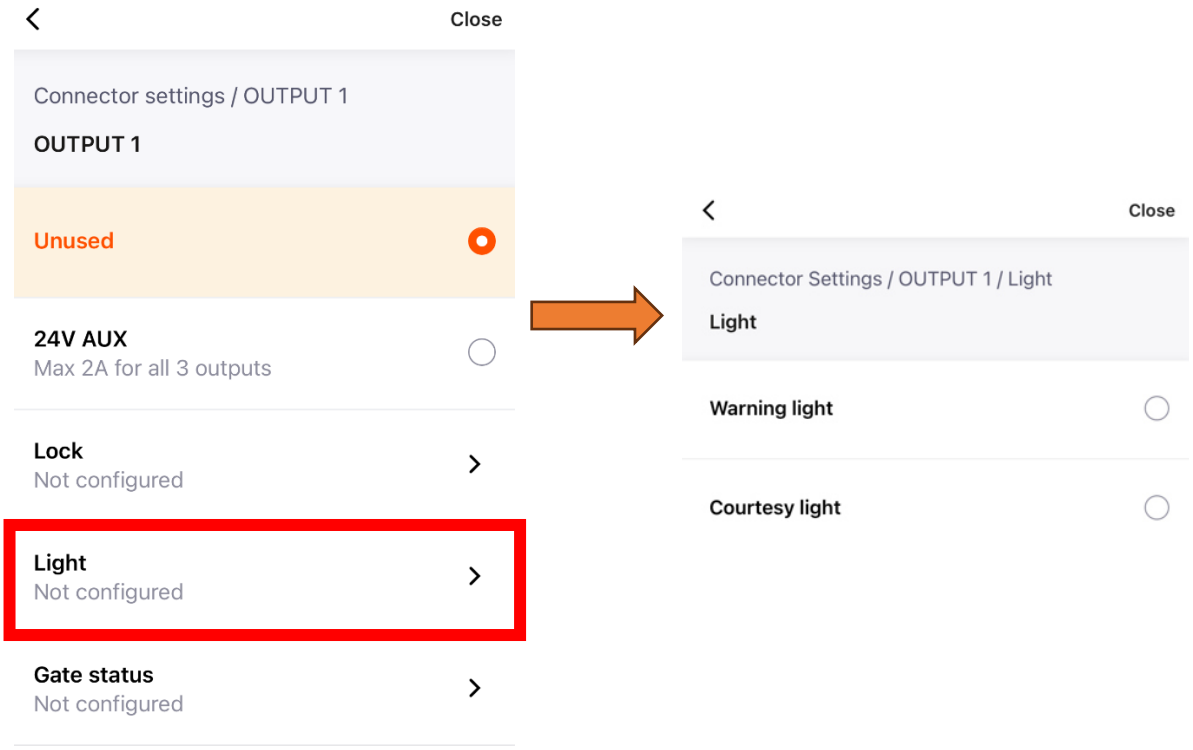
The Lock option allows selecting the type of lock. This option can be changed after the first installation if the installer would like to change the lock type or add a new lock that can be controled by Venus.

There are two types:

- Fail close: in case of a power failure, it is locked (Emissa version)
- Fail open: in case of power failure, it is unlocked (Ruptura version and Maglocks)

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Light



Warning light

Connect an external 24V DC light source and power while the gate is in motion. The 24V DC output signal flashes at 2Hz, this is the same frequency as the integrated warning light.

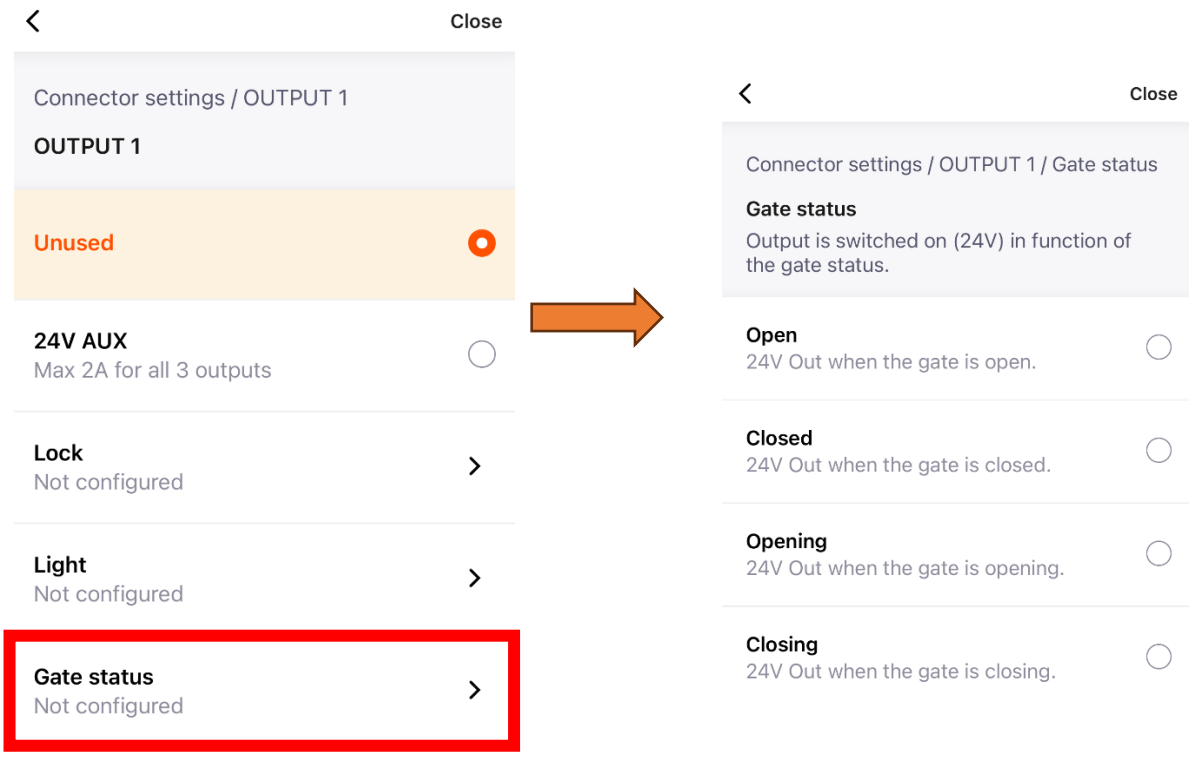
Courtesy light

Connect an external 24V DC light source and enable it while the gate is in motion. The lamp remains ON after the gate is closed for a certain period. This time can be set in the light settings on the second page of the advanced settings.

Light -> Activation time Courtesy light

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Gate status



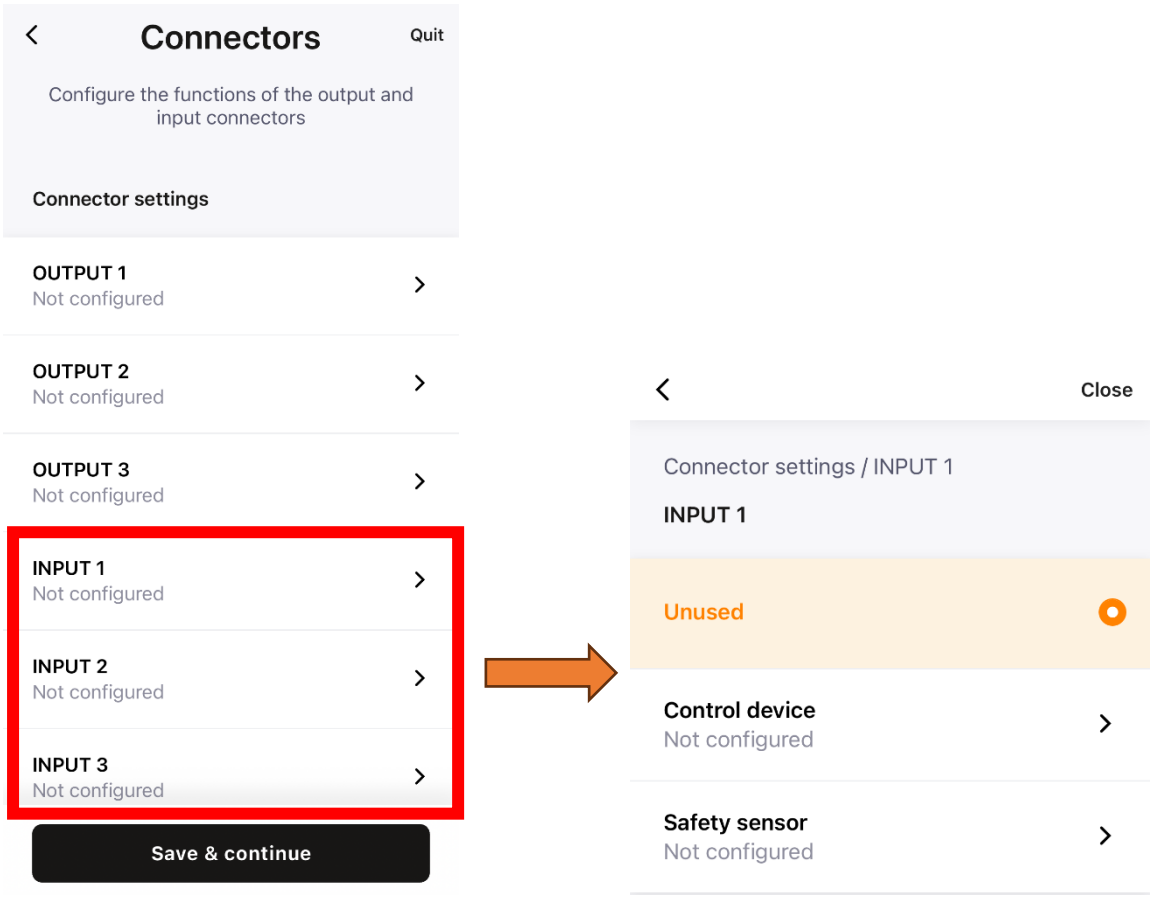
Open
Set programmed output to +24V DC when the gate is in open position.

Closed
Set programmed output to +24V DC when the gate is in closed position.

Opening
Set programmed output to +24V DC while the gate is opening

Closing
Set programmed output to +24V DC while the gate is in closing

Input connectors – dry contact

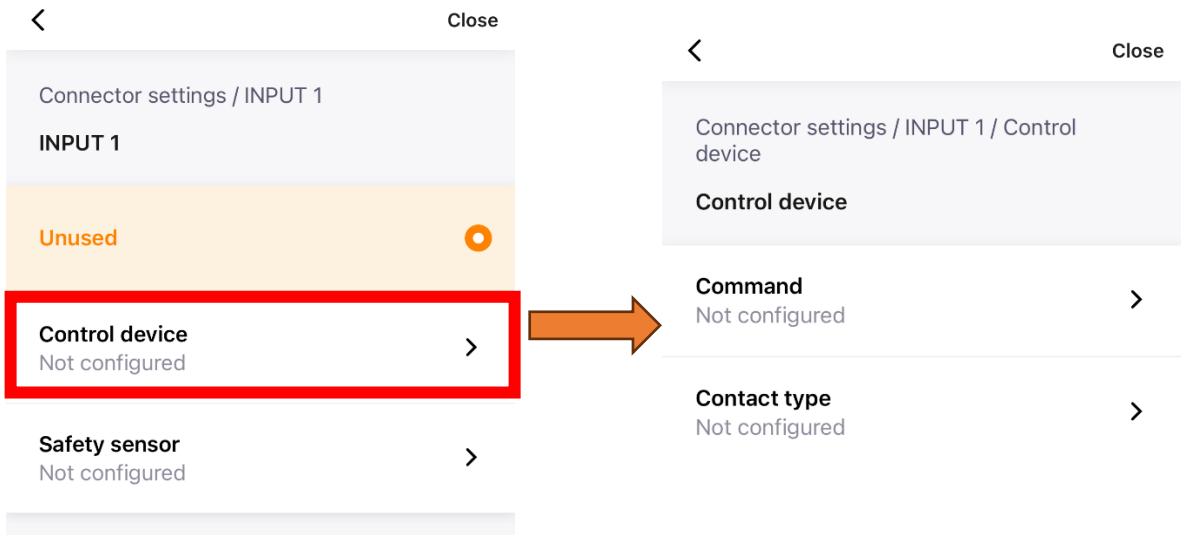


Input signals control the motor (e.g. push button, keypad, intercom, photocells, etc.). These inputs terminals require a dry contact. This mean that the control signals should be free of any voltage. If the control signal is not a dry contact, it is mandatory to use a relay between the control device and Venus.

Unused

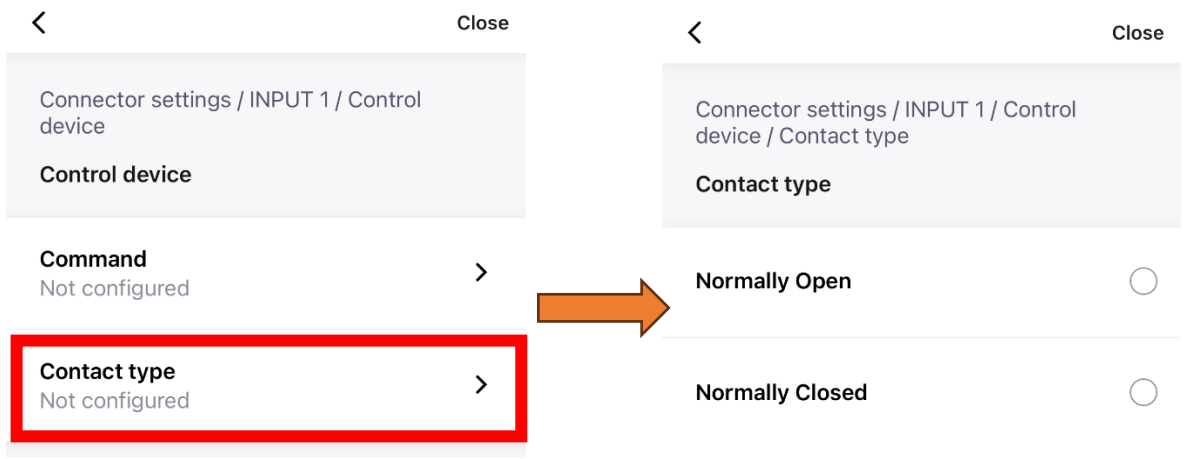
This option does not assign any function to the input terminal. This option is set as the default for all inputs when Manual mode is selected. Automatic mode has pre-defined options that are explained: here.

Control device

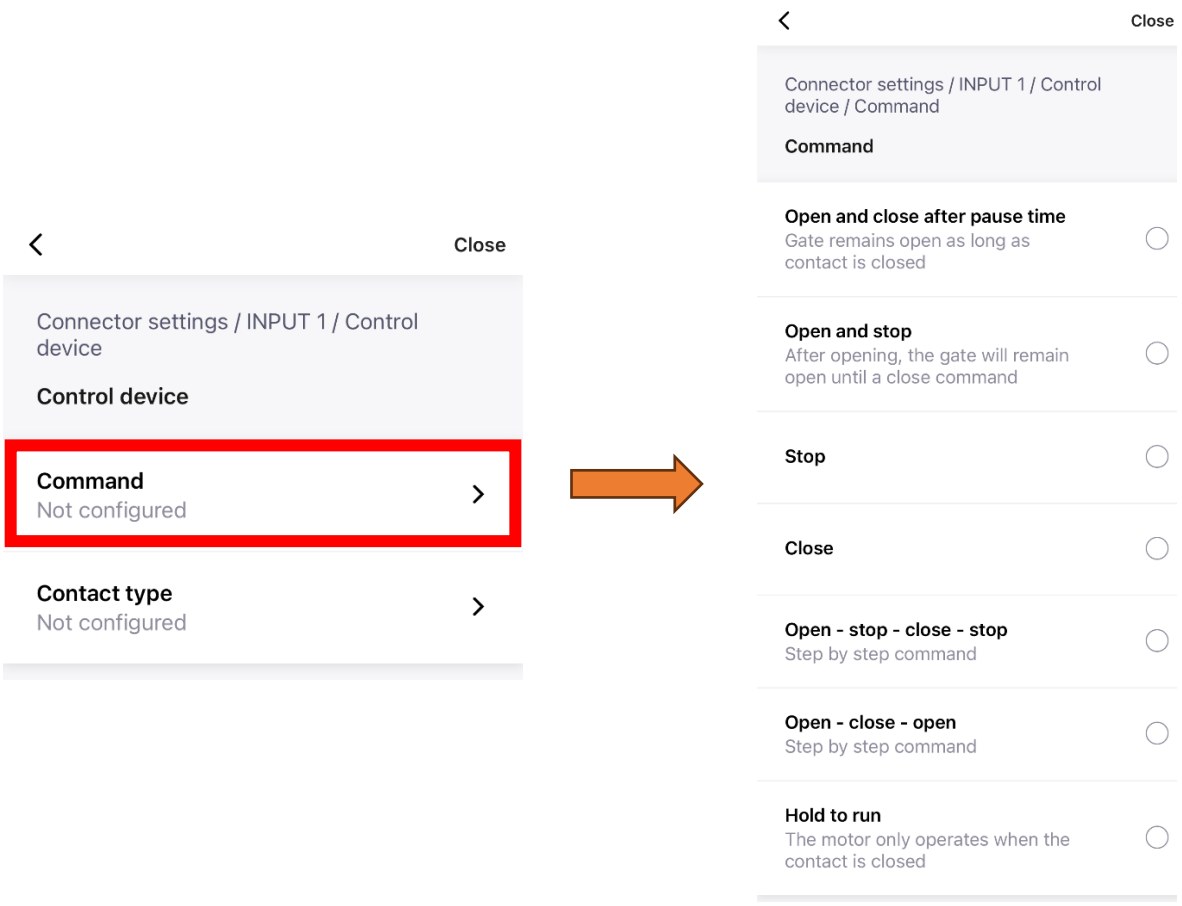


Configuringthe “control device” option allowsto control the motor by a control signalfrom an external device or control element. Control deviceoption setting hastwo configurable options:

- Commandoption allows you to properly configure Venusoperation in various modes, which are describedfurther in the document.
- Contact type option allows you to select the control signal type: “Normally Open” or “Normally Closed”.



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Open and close after pause time

A full opening cycle (opening and closing the gate) is activated with the set pause time (default 5 seconds). The pause time can be configured on the second page of the advanced settings in the application. It opens the gate only when the signal is active. If the signal is removed while the gate is opening, Venus will automatically close the gate. When the open position is reached, Venus will stay open as long as there is an active signal on the input. When the signal is removed, Venus will wait for the duration of the configured pause time (default is 5 seconds) and then closes the gate. If a user manually closes the gate while the control signal is active, the gate will reopen again after the pause time.

Open and stop

Opens the gate to the preconfigured opening angle and the gate remains open until the user closes the gate manually (Push&Go). Alternatively, the user can trigger a "Close" command through another input.

Stop

Stops the gate and disables the pause time. The gate remains stopped until the user closes or opens the gate manually (Push&Go). Alternatively, the user can trigger a "Open" or "Close" command through another input.

Close

Closes the gate. If the gate is in closed position, the motor will also try to close the gate until a hard stop is detected.

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Open – stop – close – stop

Full open and close cycle with set pause time. When the input signal is triggered a second time, during the opening movement, the gate stops. A third trigger will reverse the movement, etc.

Open – close – open

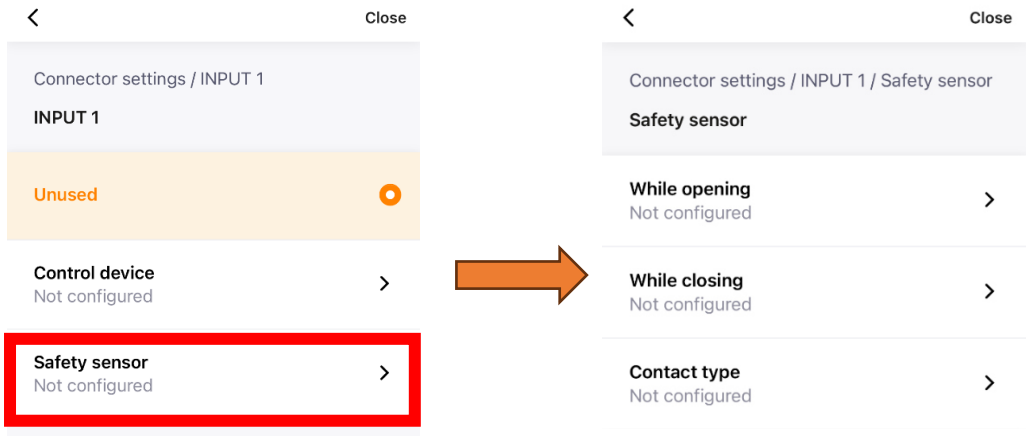
Full open and close cycle with set pause time. When the input signal is triggered again, the gate reverses, etc.

Hold to run

Opens the gate only while the signal is active. After reaching the open position, Venus will wait for the set pause time (default is 5 seconds) and close the gate (even if the control signal is active). If the contact is interrupted while the gate is moving, the gate stops. If you trigger the input again, it will reverse.

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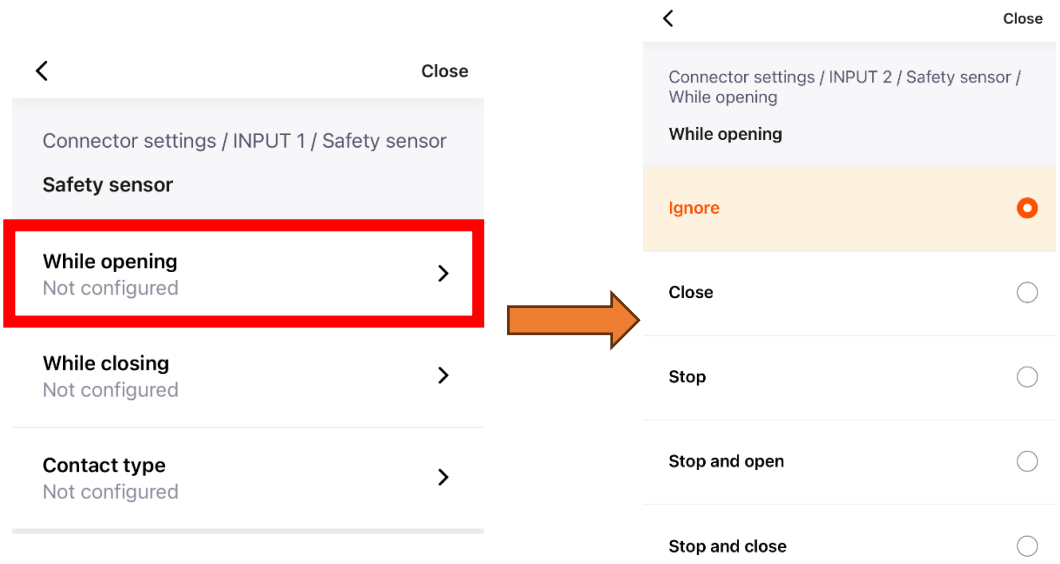
Safety sensor



The configuration of the safety sensor option allows to control the operation of the Venus, using external sensors (e.g. photocells, light curtain). The Safety sensor setting has three configurable options. By default, the Venus device executes the command immediately (without delay) after detecting a signal from the external sensor. You can change the delay time via the "Delay after unlocking" function.

While opening

Controls the Venus operation during the opening of the gate. If the option is set to anything else except Ignore, a triggered safety sensor will also prevent the gate from starting an opening motion.



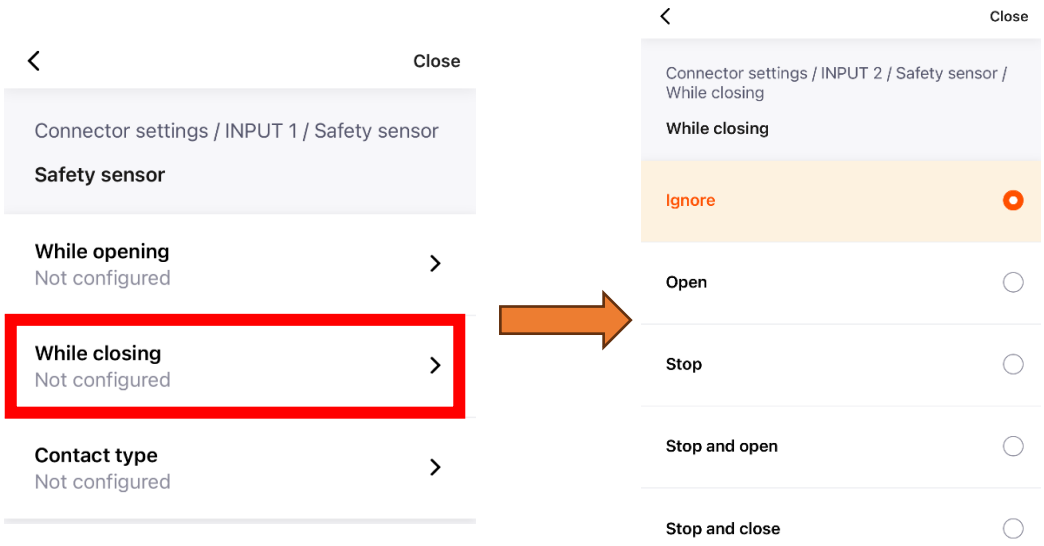
Set up different motor behaviors during the opening movement of the gate:

- Ignore: no change, the sensor input signal is ignored.
- Close: if the sensor is triggered during the opening movement, it interrupts the opening of the gate and closes it immediately.
- Stop: if the sensor is triggered during the opening movement, it interrupts the opening of the gate and stops it.

- Stop and open: if the sensor is triggered during the opening movement, the gate stops. It opens once the signal is back in the default state, this depends on the chosen type (NO/NC).
- Stop and close: if the sensor is triggered during the opening movement, the gate stops. It closes once the signal is back in the default state, this depends on the chosen type (NO/NC).

While closing

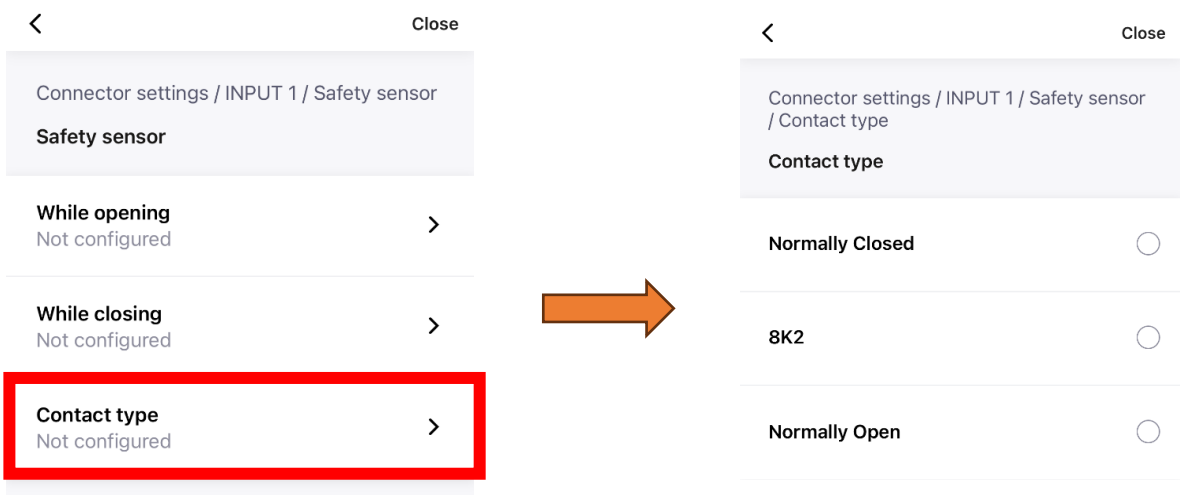
Controls the Venus operation during the closing of the gate. If the option is set to anything except Ignore, a triggered safety sensor will also prevent the gate from starting a closing motion.



Set up different motor behaviors during the closing movement of the gate:

- Ignore: no change, the sensor input signal is ignored.
- Open: if the sensor is triggered during the closing movement, it interrupts the closing of the gate and opens it immediately.
- Stop: if the sensor is triggered during the closing movement, it interrupts the closing of the gate and stops it.
- Stop and open: if the sensor is triggered during the closing movement, the gate stops. It opens once the signal is back in the default state, this depends on the chosen type (NO/NC).
- Stop and close: if the sensor is triggered during the closing movement, the gate stops. It closes once the signal is back in the default state, this depends on the chosen type (NO/NC).

Contact type allows to select the appropriate type of control signal: Normally Open, Normally Closed and 8K2 safety edge.



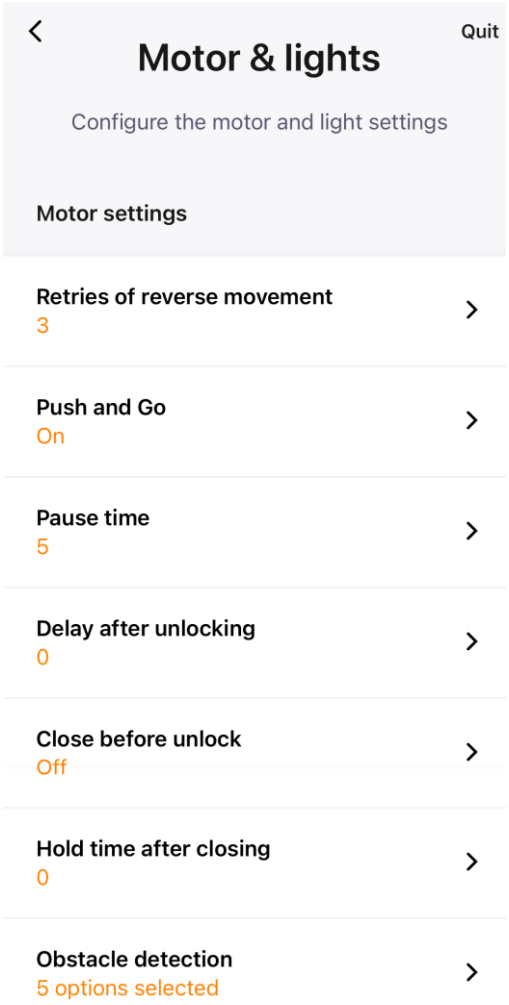
Motor settings

After configuring and saving the parameters for the Inputs and Outputs of Venus, the application moves to the second page, which allows you to configure the operation of the electric motor and the light parameters.

The Venus electric motor can be configured with the following functions:

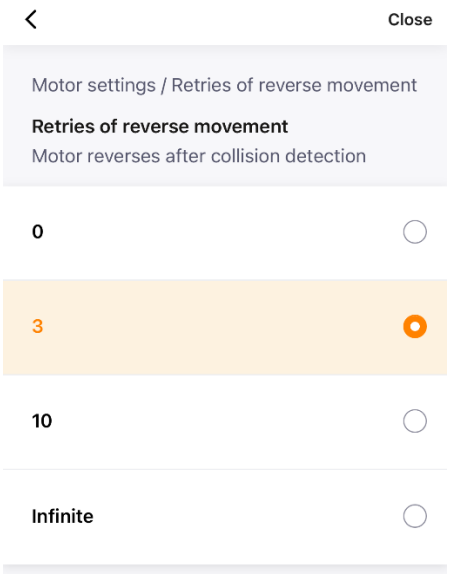
- Retries of reverse movement,
- Push and Go function,
- Pause time,
- Delay after unlocking,
- Close before unlock,
- Hold time after closing,
- Obstacle detection.

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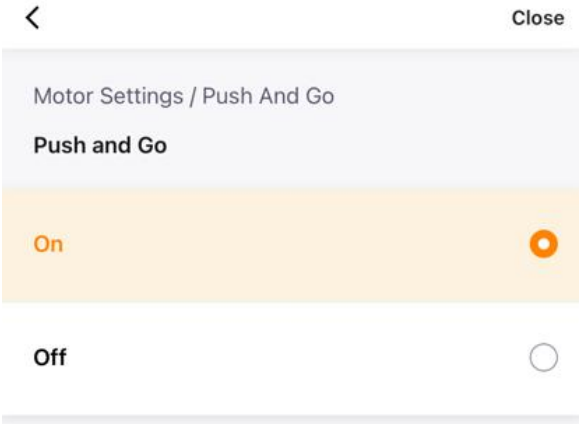
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Number of Retries after Collision



The number of attempts to close the gate, in case of a collision during closing. In the event of a collision, the gate returns to the open position, and after the pause time, the Venus attempts to close the gate again. If the collision count is exceeded, the gate fully opens and remains open until it is closed manually. The application allows you to set a quantity of: 0, 3, 10 and infinite. The default value is 3 attempts. This function does not work in case of a collision during opening, in that case, Venus will automatically return to the closed position and wait for a new opening command.

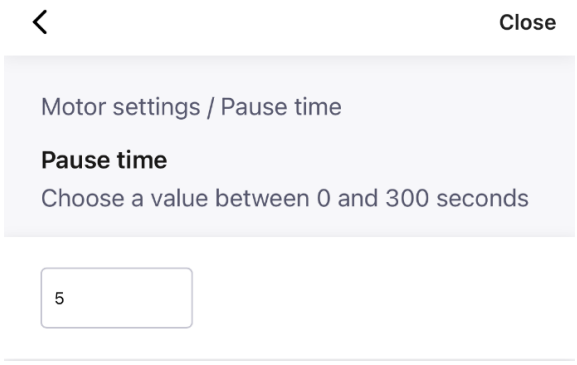
Push/Pull & GO



Enable or disable the Push&Go function. This function automatically starts operating the gate by manually pushing or pulling the gate for a few degrees. This function is recommended in Manual mode when using a mechanical keep. The default setting is “ON”.

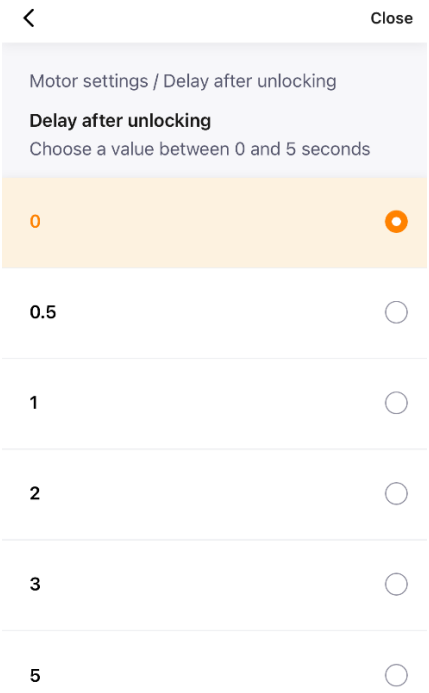
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Pausetime



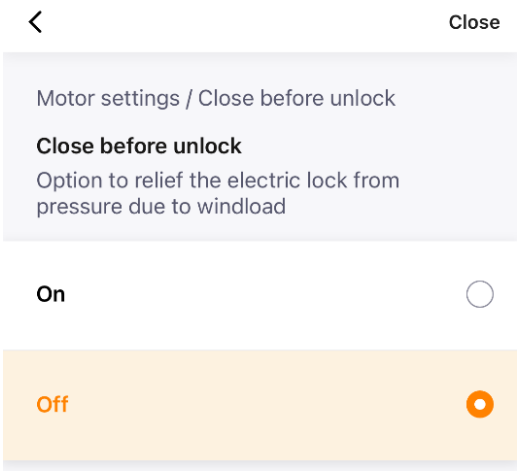
Set the pause time for automatically closing the gate after Venus reaches its fully open position. The possible range of the pause time is between 0 and 300 seconds (5 minutes). After this time, Venus will automatically close the gate. The default value is 5 seconds.

Delay after unlocking



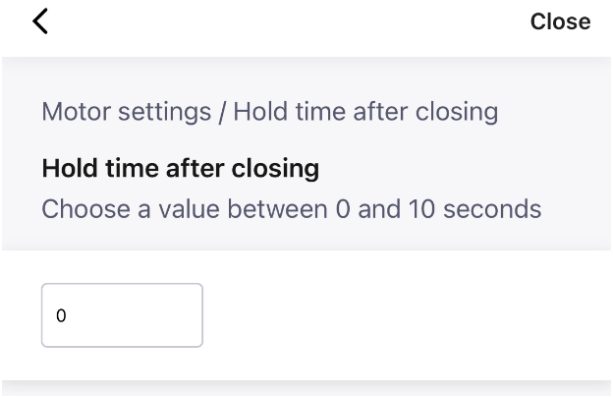
Set the delay time between the opening command and the actual opening of the gate. The options are: 0, 0.5, 1, 2, 3 or 5 seconds. The optimum (minimal) value is automatically set by Venus during the calibration step (the option of 5 seconds is not included during the calibration). This function could be used with maglocks to compensate for the demagnetizing time.

Close before unlock



If this function is activated, the motor will push the gate against the gate keep (closing direction) for 0.5 second to release the wind pressure from the lock latch before opening. After that time, Venus will automatically open the gate. This function is by default disabled. This function should be used for example in combination with the Locinox Electradrop. The push in the closing direction starts with the pre-flash.

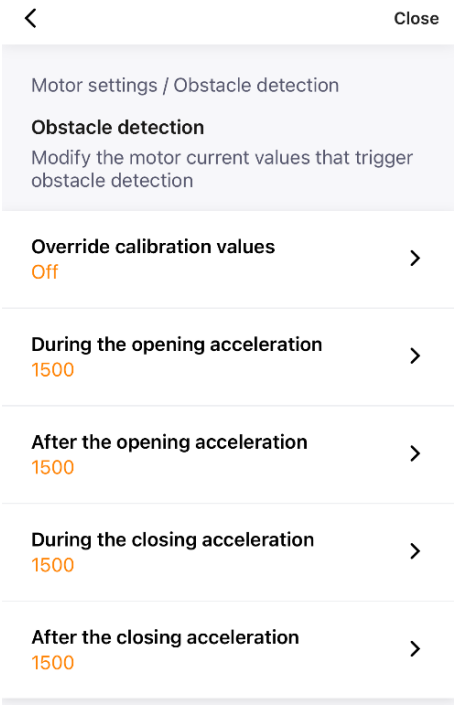
Hold time after closing



Set the duration of the holding force after the gate is closed. Choose between 0 and 10 seconds. This function should be used for example in combination with a Locinox Electradrop to keep the gate in closed position, even under wind load, while the bolts drops in the ground stop.

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Obstacle detection



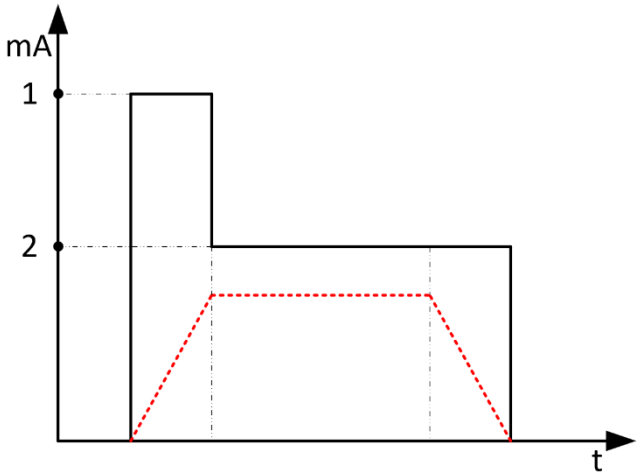
Important!

This option is advisable for qualified people who have the skills and knowledge of the correct configuration of the electric motor. Locinox assumes no responsibility for the Venus device not being installed and configured correctly. Be sure to comply with the relevant standards at the installation site and adapt the requirements to local laws. In compliance with Machine Directive 2006/42/EC, a risk analysis must be performed and automated gate identified in accordance with CE Marking directive 93/68/EEC before the system is commissioned.

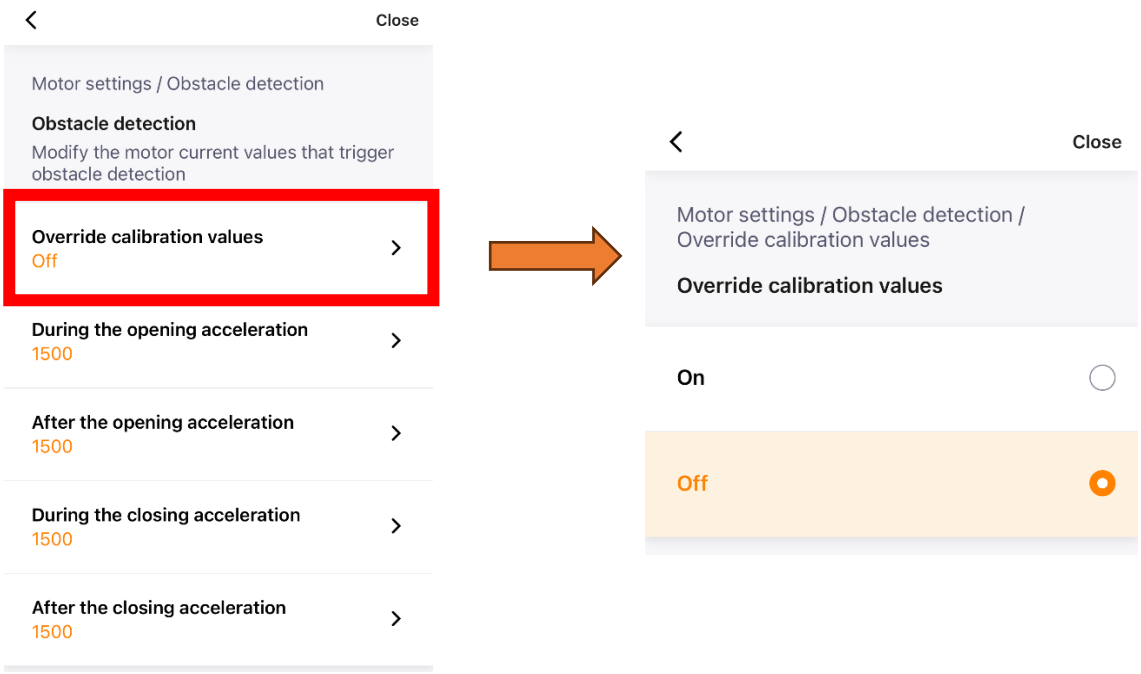
During the calibration step, the optimal motor current limits are automatically determined throughout the full opening and closing motion.

However, it is possible to override these automatic limits and set them manually. A separate obstacle detection current limit can be set for:

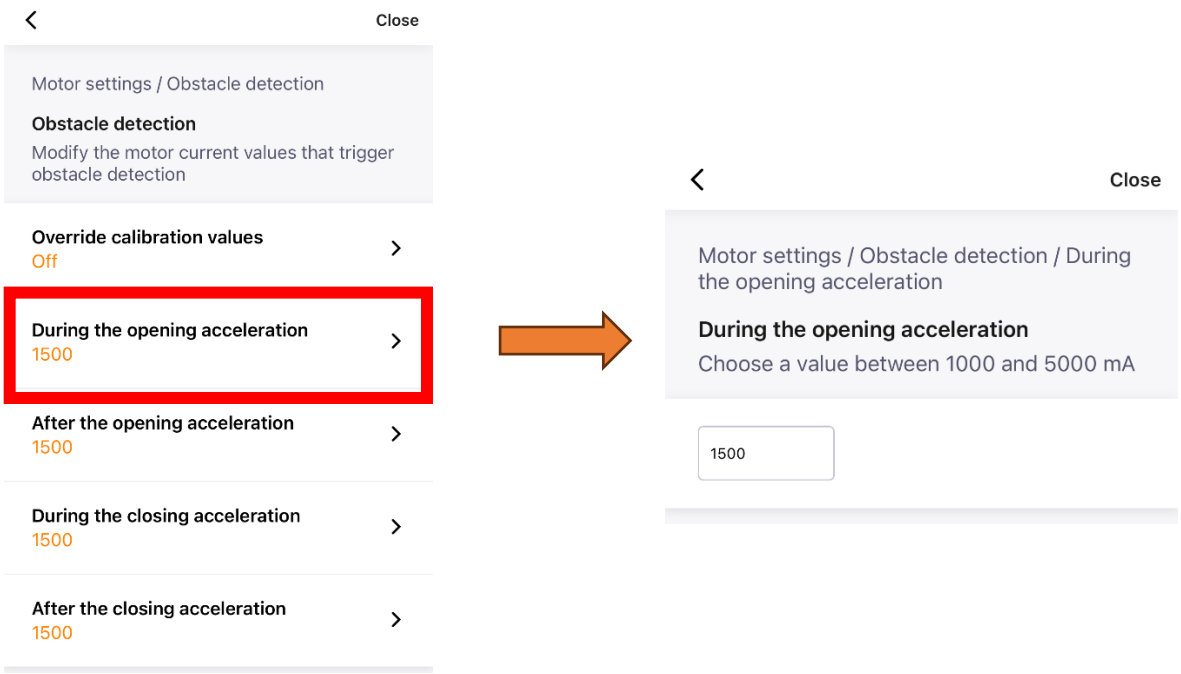
1. First phase during the gate acceleration
2. Second phase after the gate reached the maximum speed



The red dotted line indicates the speed of the Venus electric motor. When reaching phase 1, the motor does not accelerate and maintains a constant speed of movement. When reaching the final position, the motor automatically reduces its speed.



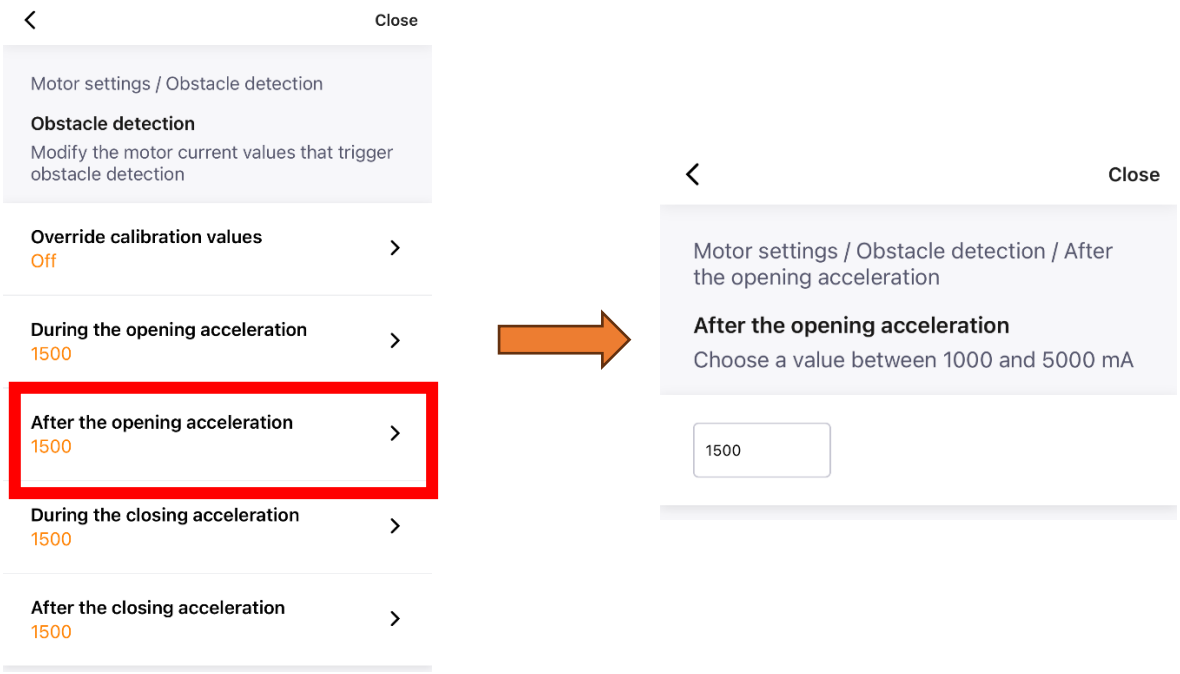
The "Override calibration values" option should be enabled to override the automatically determined overcurrent values.



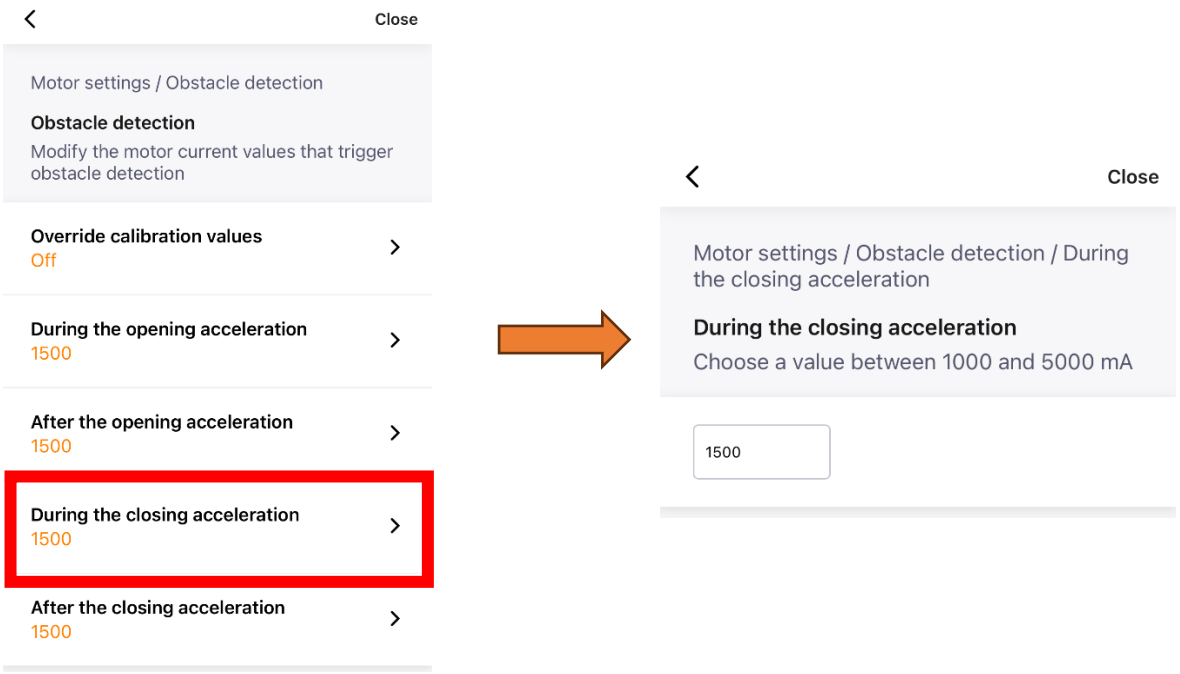
During the opening acceleration

Set the overcurrent value (mA) during the first phase of the opening movement of the gate, before the acceleration. Choose a value between 1000mA (minimum motor force) and 5000mA (maximum motor force).

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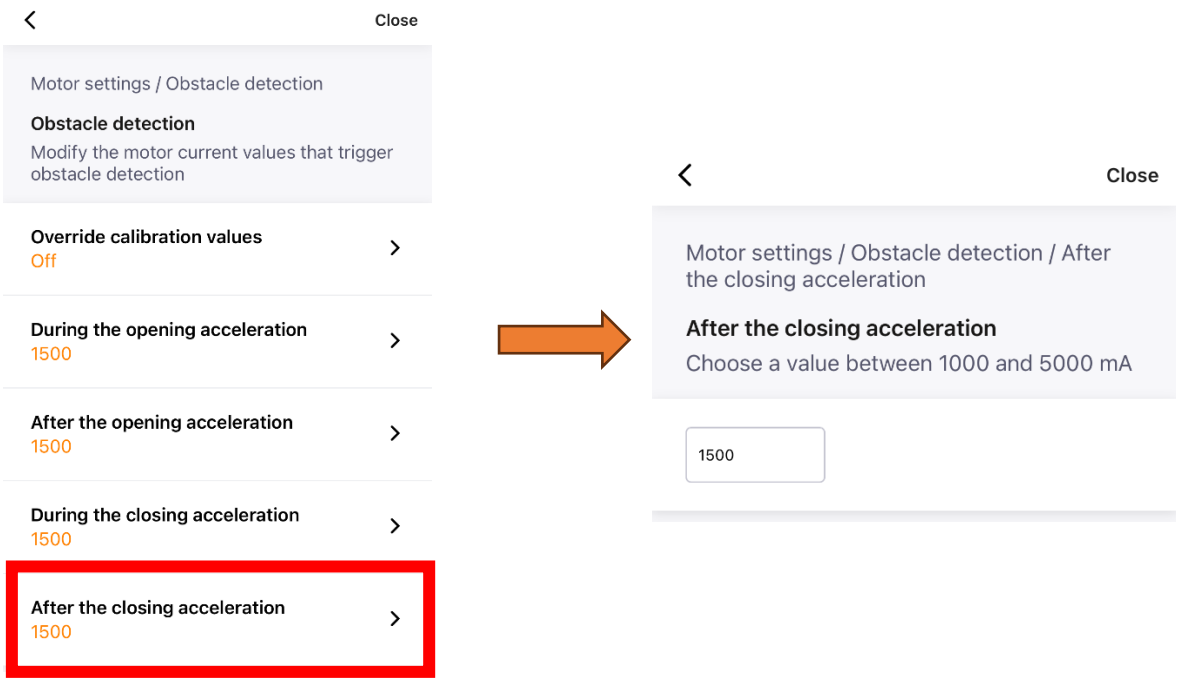


After the opening acceleration
Set the overcurrent value (mA) during the second phase of the opening movement of the gate, after the acceleration. Choose a value between 1000mA (minimum motor force) and 5000mA (maximum motor force).



During the closing acceleration
Set the overcurrent value (mA) during the first phase of the closing movement of the gate, before the acceleration. Choose a value between 1000mA (minimum motor force) and 5000mA (maximum motor force).

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After the closing acceleration

Set the overcurrent value (mA) during the second phase of the closing movement of the gate, after the acceleration. Choose a value between 1000mA (minimum motor force) and 5000mA (maximum motor force).

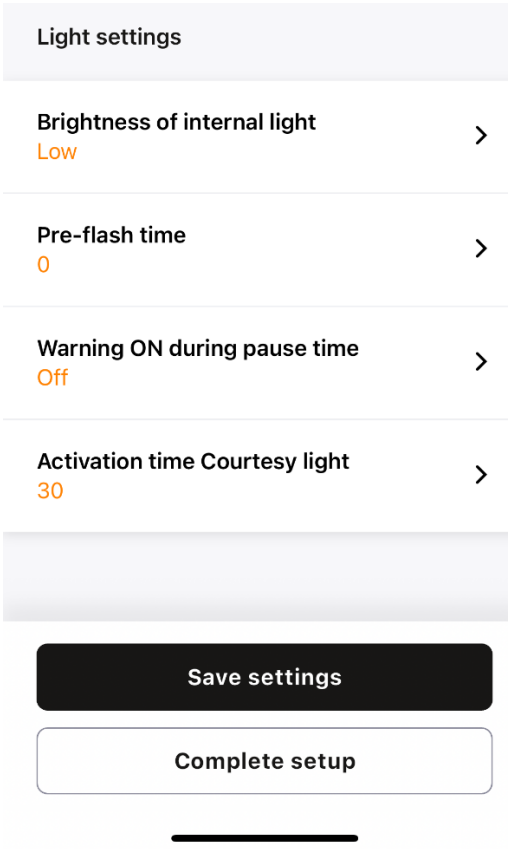
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Light settings

After configuring and saving the parameters for the Inputs and Outputs of Venus, the application movesto the secondpage,which allows configuring the operation of the electric motor and the light parameters.

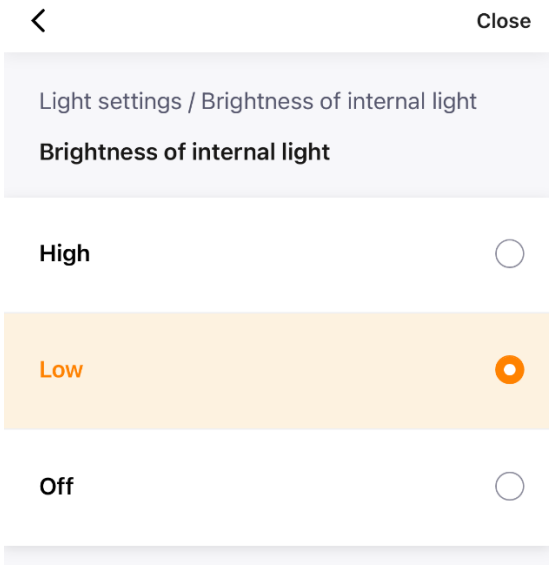
Following configuration settings are available for the lights:

- Brightnessof internal light,
- Pre-flashtime (both internal and external light),
- Warning ONduring pausetime (both internal and external light)
- Activation time Courtesylight (external)



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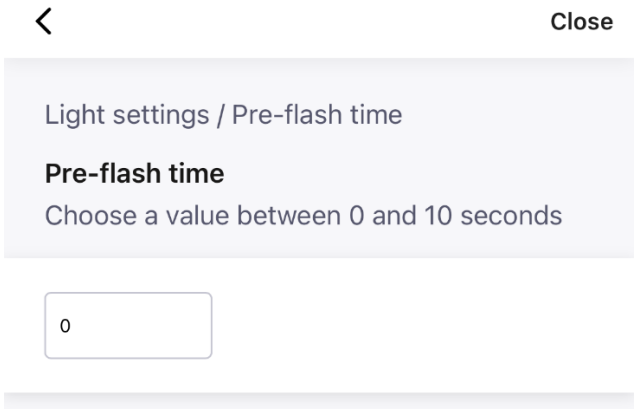
Brightness of internal light



Set the brightness of the integrated warning light located at the bottom of Venus, with following options:

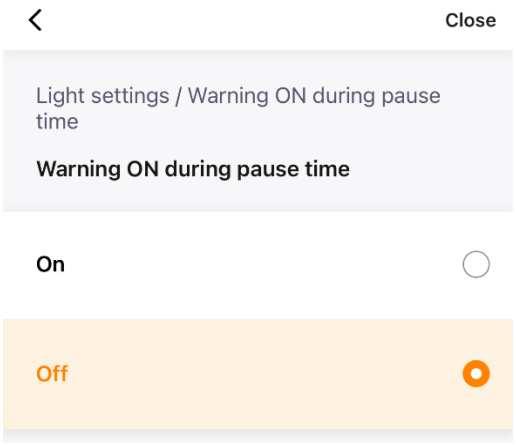
- High: activate the integrated warning light in Venus when opening or closing the gate and sets the maximum brightness of it.
- Low: activate the integrated warning light in Venus when opening or closing the gate and sets the minimum brightness of it.
- Off: complete deactivation of the integrated warning light when Venus opens or closes the gate.

Pre-flash time



Set the pre-flash time of the internal and optional external warning light. This parameter applies to the opening and closing of the gate. Choose a value between 0 and 10 seconds. The lock is not released during the pre-flash period. The gate only starts the movement after the pre-flash time has finished. This function should be set to at least 3 seconds if the Venus is combined with Electradrop, to allow for the bolt to completely lift.

Warning ON during pause time

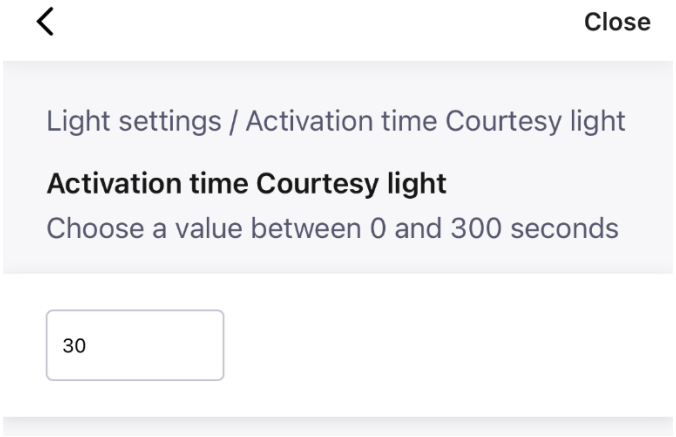


The warning light can continue flashing during pausetime; the time between opening and automatic closing of the gate. This function can be:

- ON: the warning light flashes when the gate is in the open position during pausetime
- OFF: the warning light does not flash when the gate is in the open position during pausetime

This setting is disabled by default.

Activation time Courtesy light



Set the auto-off timer of the external light starting after each movement. Choose a value between 0 and 300 seconds(5 minutes). The default value is 30 seconds. This applies to the output terminal that is configured as Courtesy light.

Output -> Light -> Courtesy light

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