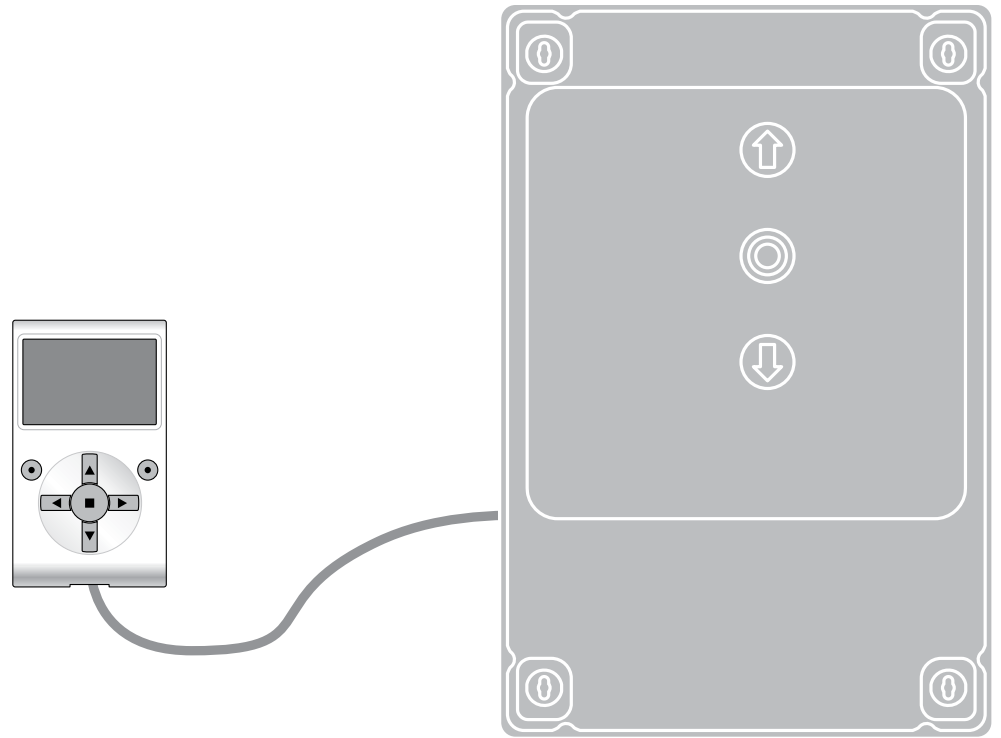


# NDA001

CE



## Programmable functions

using the Oview programmer

# COMMON FUNCTIONS

<b>Name</b>
This parameter enables the user to assign the automation with a name other than the original, to facilitate identification (e.g. northern gate). A name comprising maximum 24 characters, including spaces, is admitted.
<b>Series</b>
This parameter can be set with a value from 0 to 63; the factory setting is "0". The series is a number that has to be assigned to each gearmotor, receiver or other device potentially connectable on a BusT4 network, to define its "classification area". Subsequently, when using automations in a complex system, all devices with the same series number can be controlled simultaneously.
<b>Address</b>
This parameter can be set with a value from 1 to 128; the factory setting is "2" for Receivers and 3 for Control Units. The address is a number that has to be assigned to each gearmotor, receiver or other device potentially connectable on a BusT4 network, to distinguish it from other devices in a series. Therefore all devices within a series must have a different address from one another.
<b>Group</b>
This parameter can be set with a value from 1 to 14, or "None"; the factory setting is "None". The function enables the user to assign a number to a device to be controlled (for example a gearmotor or other device potentially connectable to a BusT4 network), which enables this device to belong to a specific "command group". Several devices, even if they belong to different series, can form part of the same group. Up to 14 groups of devices can be created and, in particular, the same device may be inserted in 4 different groups. In a device network, use of this function enables: - simultaneous control of different devices inserted in a group, even if some of these belong to different series; - use of a single receiver, installed in one of the devices belonging to the group, to control all the devices belonging to the group.
<b>Firmware version (not modifiable)</b>
This function enables the display of the version of the firmware present in a device.
<b>Hardware version (not modifiable)</b>
This function enables the display of the version of the hardware present in a device.
<b>Serial number (not modifiable)</b>
This function enables the display of the serial number identifying a specific device. This number is different for each device, even if of the same model.
<b>Password management:</b>
This function is useful to restrict access by unauthorised personnel to all or some of the programming functions of a device. If a device is password protected, the user must perform the "log in" procedure to proceed with a programming session, followed by the "log out" procedure on completion of the programming procedure. Note – the "log out" procedure enables the user to prevent access by unauthorised personnel, by re-activating the existing password. <b>Caution!</b> – In programming the password on multiple devices (for example, on the Oview, control unit, receiver, etc.), it is advisable to use the same password for all devices, including the Oview. This will avoid the need to repeat the login procedure each time the device is changed during use of Oview and the connected Software. Two types of password can be programmed on the devices (including Oview). - the user password, containing 6 alphanumeric characters maximum. <b>Caution! – Do not use uppercase letters.</b> - the installer password, containing 6 alphanumeric characters maximum. <b>Caution! – Do not use uppercase letters.</b>

# CONTROL UNIT FUNCTIONS

## Installation

<b>Bluebus search (0x0a)</b>
This function enables start-up of the procedure for learning the devices connected to the Bluebus input and the HALT input of the control unit of an automation. Important – To activate the device search, press "Start".
<b>Position programming</b>
<b>• reverse rotation (0xa3)</b>
This parameter type is ON/OFF; the factory setting is "OFF" (standard motor rotation). This function reverses the rotation direction of the encoder to align it with the direction of the motor; the factory setting is "OFF" (standard rotation direction of the encoder). Important – When you modify this parameter, you must then run the open/close position learning procedure.
<b>• open (0x18)</b>
This function is expressed in encoder pulses. During an opening manoeuvre, this enables programming of the precise point (position) of the door opening travel limit. To do so, use the hold-to-run "open" and "close" buttons; this enables you to determine the desired position and save it with the "OK" button. If the motor has a mechanical limit switch, the position is not displayed.
<b>• open deceleration (inverters only) (0x24)</b>
This function is expressed in encoder pulses. During the opening manoeuvre this enables programming of the precise point (position) at which the door should start decelerating before reaching the limit switch. To do so, use the hold-to-run "open" and "close" buttons; this enables you to determine the desired position and save it with the "OK" button.
<b>• partial open 1 (0x1b)</b>
This function is expressed in encoder pulses. During the opening manoeuvre this enables programming of the precise point (position) at which the door stops travel (partial open). To do so, use the hold-to-run "open" and "close" buttons; this enables you to determine the desired position and save it with the "OK" button. If the motor has a mechanical limit switch, the position is not displayed, but the closing time is displayed instead.
<b>• partial open 2 (0x1c)</b>
This function is expressed in encoder pulses. During the opening manoeuvre this enables programming of the precise point (position) at which the door stops travel (partial open). To do so, use the hold-to-run "open" and "close" buttons; this enables you to determine the desired position and save it with the "OK" button. If the motor has a mechanical limit switch, the position is not displayed, but the closing time is displayed instead.

**• partial open 3 (0x1d)**

This function is expressed in encoder pulses. During the opening manoeuvre this enables programming of the precise point (position) at which the door stops travel (partial open). To do so, use the hold-to-run "open" and "close" buttons; this enables you to determine the desired position and save it with the "OK" button. If the motor has a mechanical limit switch, the position is not displayed, but the closing time is displayed instead.

**• close deceleration (inverters only) (0x25)**

This function is expressed in encoder pulses. During the closing manoeuvre this enables programming of the precise point (position) at which the door should start decelerating before reaching the limit switch. To do so, use the hold-to-run "open" and "close" buttons; this enables you to determine the desired position and save it with the "OK" button.

**• close (0x19)**

This function is expressed as a percentage. During a closing manoeuvre, this enables programming of the precise point (position) of the door closing travel limit. To do so, use the hold-to-run "open" and "close" buttons; this enables you to determine the desired position and save it with the "OK" button. If the motor has a mechanical limit switch, the position is not displayed.

**Deceleration (inverters only) (0x44)**

This parameter can be set with a value from 20% to 100%; the factory setting is 20%. This function enables you to program the speed of the motor while learning the open and close positions and during the final phase of deceleration. Important – Always set this to the minimum speed required to operate the door. Setting too high a speed can make it difficult to precisely determine the stop position.

**Braking level (0x35)**

This parameter sets a delay for the activation/deactivation of the brake when starting a cycle. The range is 0 to 2.5s; the factory setting is 0s. The parameter is divided into 4 items numbered 1 - 4 at the top right of the Oview screen. Select the delay time in "ms" for brake deactivation for:

- Value 1: start opening
- Value 2: start closing
- Value 3: stop opening
- Value 4: stop closing

**Board version (0x03)**

This displays the type of control unit and motor. The following board versions are available:

- Mechanical limit switch, three-phase
- Electronic limit switch (encoder), three-phase
- Mechanical limit switch, single-phase
- Electronic limit switch (encoder), single-phase
- Electronic limit switch, inverter, single-phase

**Delete data (0x0c)**

This function enables the user to delete the configuration of a control unit and the relative stored data, selecting items from a series. These items are:

- bluebus devices – enables deletion of the configuration of the Bluebus devices and the STOP input;
- positions – enables deletion of all memorised positions;
- function values – enables deletion of all values and settings of functions envisaged on the control unit;
- all – deletes all data in the control unit memory, except for the reserved parameters: series, address, hardware version, software version, serial number. It also loads the default values for sectional doors and shutters.
- all fast action doors (0x7C) – deletes all data in the control unit memory, except for the reserved parameters: series, address, hardware version, software version, serial number. It also loads the default values for fast action doors.

## Basic parameters

**Automatic closure (0x80)**

This parameter is ON/OFF; the factory setting is "OFF". The function enables the auto close function after an open manoeuvre in the control unit. If the function is active (ON) the automatic closure manoeuvre starts at the end of the wait time programmed in the function "pause time". If the function is not active (OFF) the Control unit operation mode is "semiautomatic". Note: auto close does not operate in hold-to-run close mode.

**Pause time (0x81)**

This parameter is expressed in seconds and can be set with a value from 0 to 250 sec.; the factory setting is 40 sec. This function enables programming on the Control unit of the required wait time which must pass between the end of an Opening manoeuvre and the start of a Closing manoeuvre. **IMPORTANT** – This function is only enabled if the "automatic closure" function is active.

**Close again after photo (0x86)****• active (0x84)**

This parameter is ON/OFF; the factory setting is "OFF". The function enables the automation to remain in the Open position only for the time required for a vehicle or person to transit. When this interval elapses the Automatic Closure manoeuvre is activated automatically, which in turn is started after a time as set in the function "wait time". Important – When the function is active (ON), operation varies according to the parameter set in the function "Automatic closure":

- with the function "Automatic closure" active (ON), the Opening manoeuvre is stopped immediately after disengagement of the photocells and, after the wait time set in "wait time", the automation starts up the Closure manoeuvre.
- with the function "Automatic closure" not active (OFF), the automation completes the entire Opening manoeuvre (even if the photocells are disengaged beforehand) and, after the wait time set in "wait time", the automation starts up the Closure manoeuvre.

**Caution!** – The function "close again after photo" is disabled automatically if a Stop command is sent during the manoeuvre in progress, to stop the manoeuvre. It does not work in hold-to-run close mode.

**• mode (0x86)**

This parameter is factory set on the mode "open until disengage". The function has 2 operating modes:

- open all – when this mode is enabled, if the safety devices (photocells) are activated during a Closure manoeuvre, the automation starts to perform a complete Opening manoeuvre. On the other hand, if the safety devices are disengaged, the automation starts the automatic closure manoeuvre after the wait time as programmed in the function "closure delay time" has elapsed;
- open until disengage – when this mode is enabled, if the safety devices (photocells) are activated during a Closure manoeuvre, the automation starts to perform an Opening manoeuvre, which proceeds until the photocells are disengaged. At this point the manoeuvre is shut down and the automation starts the closure manoeuvre after the wait time as programmed in the function "closure delay time" has elapsed. Note – If the "Automatic closure" function is not active, the Control unit switches to "open all" mode.

<b>Wait time (0x85)</b>
This parameter is expressed in seconds and can be set with a value from 0 to 250 sec.; the factory setting is 5 sec. This function enables programming on the Control unit of the required wait time to pass between the end of an Opening manoeuvre and the start of a Closing manoeuvre.
<b>Always close (0x87)</b>
<ul style="list-style-type: none"> <li>• <b>active (0x86)</b> This parameter is ON/OFF; the factory setting is "OFF". This function is useful in the event of a power failure, even brief. In fact, during an Opening manoeuvre if the automation shuts down due to a power failure and the function is active (ON), the Closure manoeuvre is performed normally when the electrical power is restored. On the contrary, if the function is not active (OFF), the automation remains stationary when the power is restored. Note – For reasons of safety, when the function is active, the Closure manoeuvre is preceded by a wait time as programmed in the function "pre-flashing time". Note: auto close does not operate in hold-to-run close mode.</li> <li>• <b>mode (0x8a)</b> This parameter is factory set on the mode "always close". The function has 2 operating modes: <ul style="list-style-type: none"> <li><input type="checkbox"/> standard – For this mode, refer to the function "active" under the item "always close";</li> <li><input type="checkbox"/> save automatic closure - Enabling this mode, you may obtain two results when power is restored after a power failure: a) execution of automatic closure, observing the time as programmed in the function "pre-flashing time", if the timeout interval of this time was in progress at the time of the power failure; b) execution of closure manoeuvre if the automatic closure was in progress at the time of the power failure and the manoeuvre had not been completed.</li> </ul> Note – If the automatic closure manoeuvre was cancelled before the power failure (for example, by sending the Halt command), the Closure manoeuvre is not performed when the power is restored.</li> </ul>
<b>Wait time (0x89)</b>
This parameter is expressed in seconds and can be set with a value from 0 to 20 sec.; the factory setting is 5 sec. This function enables programming on the Control unit of the required wait time to pass between the end of an Opening manoeuvre and the start of a Closing manoeuvre.
<b>Pre-flashing (0x93)</b>
<ul style="list-style-type: none"> <li>• <b>active (0x94)</b> This parameter is ON/OFF; the factory setting is "OFF". When this function is set to "ON" it enables the activation of a flashing time, which passes between activation of the flashing light and the start of an Opening or Closing manoeuvre. This time is adjustable and useful to for an advance indication of a hazardous situation. Important – When this function is not active (OFF), the flashing light is switched on at the same time as the start of the manoeuvre.</li> <li>• <b>time in opening (0x95)</b> This parameter is expressed in seconds and can be set with a value from 0 to 10 sec.; the factory setting is 3 sec. This function programs the flashing time which indicates the imminent start of an Opening manoeuvre: it is associated with the pre-flashing function.</li> <li>• <b>time in closing (0x99)</b> This parameter is expressed in seconds and can be set with a value from 0 to 10 sec.; the factory setting is 3 sec. This function programs the flashing time which indicates the imminent start of a Closing manoeuvre: it is associated with the pre-flashing function.</li> </ul>
<b>Block automation (0x9a)</b>
This parameter is ON/OFF; the factory setting is "OFF". This function enables automation operation to be disabled, by setting the value to "ON". In this case no type of command is acknowledged or performed, with the exception of "High priority step-step", "Release", "Release and close" and "Release and open".
<b>Block keys (0x9c)</b>
This parameter is ON/OFF; the factory setting is "OFF". This function disables operation of the keys present on the control unit.
<b>Test mode (0xA9)</b>
This parameter automatically sets the behaviour of inputs and outputs when using specific safety devices. The following modes are available at this time: <b>0: all inputs and outputs use their factory settings or settings made by the installer;</b> <b>1: operation with photocell barriers with test device.</b>
This mode uses ING1 input (as the photocell input) and the traffic light OUT-TL1 output. When starting a closing manoeuvre, a test is run which activates the output and checks that the input deactivates. Normal operation is then restored. Important – if the mode is reset to 0, OUT-TL1 returns to its set value, while ING1 is set to not connected to avoid unintentional commands.
<b>Brake mode (0x36)</b>
This parameter sets the parking brake's operating mode. There are 3 modes: <b>0: brake disabled (not powered);</b> <b>1: brake negative. During the manoeuvre, the brake is powered to release it and allow the motor to run. When the manoeuvre is completed, power to the brake is shut off, thus automatically engaging it.</b> <b>2: brake positive. During the manoeuvre the brake is not powered and the motor is free to run. When the manoeuvre is completed, the brake is powered up, thus engaging it.</b> <b>3: brake negative. For 208V three-phase power</b> <b>4: brake positive. For 208V three-phase power</b> The factory setting is mode 1.
<b>Short inversion value (0x31)</b>
This parameter is expressed in seconds and can be set with a value from 0,1 to 5 seconds; the factory setting is 3 seconds. This function enables programming of the brief inversion activated by the control unit as a safety manoeuvre following detection of an obstacle or delivery of a "Stop" command.

<b>Exclusion position (0xa4)</b>
This parameter is expressed in seconds and can be set with a value from 0 to 300 seconds; the factory setting is 50 seconds. Note – the “0” setting is considered the fully closed position of the automation. This function enables the programming of the maximum limit, over which the control unit automatically disables the inversion manoeuvres envisaged in the obstacle detection functions, if the latter are active.
<b>FOTO exclusion position (0xaf)</b>
This parameter is expressed in seconds and can be set with a value from 0 to 4000 seconds; the factory setting is 0 seconds. Note – the “0” setting is considered the fully closed position of the automation. This function programs the maximum limit within which the control unit automatically inhibits monitoring of the photocells (FOTO address).
<b>Position compensation (0xfc)</b>
<ul style="list-style-type: none"> <li>• <b>automatic compensation (0x97)</b></li> </ul> <p>This parameter is ON/OFF; the factory setting is “OFF”. This function is useful if using a 8K2 resistive type or OSE optical type sensitive edge. The function enables recovery of the extension of metal ropes of the automation usually caused by wear over prolonged operation. If the sensitive edge trips at the fully closed position, the control unit will stop the motor a few encoder pulses (compensation value) earlier the next time the door is closed.</p>
<ul style="list-style-type: none"> <li>• <b>compensation value (0x2e)</b></li> </ul> <p>This parameter can be set with a value from 0 to 20; the factory setting is “2”. This parameter enables programming of a number of encoder pulses on the control unit, required for the “position compensation” function. This parameter is only effective if the parameter “automatic compensation” is active (ON).</p>
<b>Work time (0xa7)</b>
Sets the maximum duration of the manoeuvre. When it times out, the manoeuvre is aborted.
<ul style="list-style-type: none"> <li>• <b>mode</b></li> </ul> <p><input type="checkbox"/> manual: in this mode, the work time is taken from the configurable parameter “maximum work time”.</p> <p><input type="checkbox"/> automatic: in this mode, the control unit measures the time taken to complete the manoeuvre after position learning, and sets a slightly higher value.</p>
<ul style="list-style-type: none"> <li>• <b>maximum time</b></li> </ul> <p>This parameter ranges from 0 to 120s, and represents the maximum time within which a manoeuvre must be completed in the manual mode; the default value is 60s.</p> <p><input type="checkbox"/> value 1: opening time</p> <p><input type="checkbox"/> value 2: closing time</p>

## Advanced parameters

### INPUT configuration

This item covers the commands available and associable with inputs 1-2-3 present on the control unit of an automation. The commands available for each input are described in Table 1; while the command categories and relative operating modes are described in Tables 1a, 1b, 1c etc. **Important** – For correct operation of the control unit, the command programmed on an input must be associated with the corresponding command category and lastly the required operating mode.

For configure an input, proceed as follows:

**01.** In the section “Advanced parameters” select the item “input configuration” and then the input to be programmed. Select the command and confirm with “OK”.

**02.** Then, still in “Advanced parameters”, select “command configuration” and select the category of the command selected in step 01. Finally, select the operating mode. There are three available inputs:

#### • Input 1

This programs Input 1, by assigning a command from among those listed in Table 1. Input 1 is factory set to “step-by-step” command, with the “Industrial Mode” operating mode for sectional doors – with “open - stop - close - open” mode for high-speed doors.

#### • Input 2

This programs Input 2, by assigning a command from among those listed in Table 1. Input 2 is factory set to “open”, “opening” category and “open-stop-open” mode.

#### • Input 3

This programs Input 1, by assigning a command from among those listed in Table 1. Input 3 is factory set to “close” command, with the “Industrial Mode” operating mode for sectional doors – with “open - stop - close - open” mode for high-speed doors.

**TABLE 1: INPUT CONFIGURATION**

COMMAND	COMMAND CATEGORY	DESCRIPTION
<b>No command</b>		Does not perform any command.
<b>Step-by-step</b>	Step-by-step Program the desired mode from those given in Table 1-A (“Command configuration” > “step-by-step” > operating mode ...)	The command is factory assigned to Input 1, with the “Industrial Mode” operating mode for sectional doors – with “open - stop - close - open” mode for high-speed doors.  When the command is sent, the control unit makes the automation run the manoeuvre following that previously (or still) in execution, according to the order of manoeuvres given in the programmed sequence. Input configured as normally open.
<b>Partial open 1</b>	Partial open Program the desired mode from those listed in Table 1-B (“Command configuration” > “partial open” > mode ...)	When this command is sent the control unit activates the application to complete the Opening manoeuvre until the position is reached as set in the function “partial open 1”(Control unit functions > installation > positions > partial open 1). Input configured as normally open.

<b>Partial open 2</b>	Partial open Program the desired mode from those listed in Table 1-B ("Command configuration" > "partial open" > mode ...)	When this command is sent the control unit activates the application to complete the Opening manoeuvre until the position is reached as set in the function "partial open 2"(Control unit functions > installation > positions > partial open 2). Input configured as normally open.
<b>Partial open 3</b>	Partial open Program the desired mode from those listed in Table 1-B ("Command configuration" > "partial open" > mode ...)	When this command is sent the control unit activates the application to complete the Opening manoeuvre until the position is reached as set in the function "partial open 3"(Control unit functions > installation > positions > partial open 3). Input configured as normally open.
<b>Open</b>	Opening Program the desired mode form those listed in Table 1-C ("Command configuration" > "opening" > mode ...)	This command is factory assigned to Input 2, in mode "open - stop - open". When this command is sent the control unit activates the application to complete the Opening manoeuvre until the position is reached as set in the function "opening" (Control unit functions > installation > positions > opening). Input configured as normally open.
<b>Close</b>	Closure Program the desired mode from those listed in table 1-B ("command configuration" > "closure" > mode ...)	This command is factory set to Input 3, with operating mode "close - stop - close". When this command is sent the control unit activates the application to complete the Closing manoeuvre until the position is reached as set in the function "closing" (Control unit functions > installation > positions > closing). Input configured as normally open.
<b>Stop</b>	Stop Program the desired mode from those listed in Table 1-E ("command configuration" > "stop" > mode ...)	When this command is sent, the control unit stops the manoeuvre in progress gradually and in a short time (not instantly). Input configured as normally open.
<b>High priority step-by-step</b>	Step-by-step Program the desired mode from those given in Table 1-A ("Command configuration" > "step-by-step" > operating mode ...)	When this command is sent, the control unit activates the application to complete the next manoeuvre following the previous one (or still in progress) according to the sequence of manoeuvres as envisaged in the programmed sequence. Important – This command is performed even if the control unit is set with the command "block" (see Table 1). Input configured as normally open
<b>Open and block</b>	Opening Program the desired mode form those listed in Table 1-C ("Command configuration" > "opening" > mode ...)	When this command is sent the control unit activates the application to complete the Opening manoeuvre until the position is reached as set in the function "opening" (Control unit functions > installation > positions > opening). Input configured as normally open.
<b>Close and block</b>	Closure Program the desired mode from those listed in Table 1-D ("command configuration" > "closure" > mode ...)	When this command is sent the control unit activates the application to complete the Closing manoeuvre until the position is reached as set in the function "closing"(Control unit functions > installation > positions > closing) and the automation is then blocked. Input configured as normally open.
<b>Block</b>		When this command is sent, the control unit is blocked and does not perform any type of command, with the exception of "High priority step-step", "Release", "Release and close" and "Release and open". Input configured as normally open.
<b>Release</b>		When this command is sent, the control unit is released restoring normal operating status (all commands sent can be performed). Input configured as normally open.
<b>Timed Courtesy light</b>		This command enables activation of the courtesy light on the control unit and that programmable on Output 1. The courtesy light remains active for the time as programmed in the function "courtesy light time" (Control unit functions > advanced parameters > output configuration > courtesy light time). For the courtesy light connected to Output 1, the command is only enabled when this output is programmed in "courtesy light" mode (Control unit functions > advanced parameters > output configuration > output 1 (flash) > courtesy light). Note – When the courtesy light is already active and the "courtesy light timer" is sent again, the time set in "courtesy light time" is reset. Input configured as normally open.

<b>Courtesy light: on/off</b>		This command enables activation and deactivation of the courtesy light on the control unit and that programmable on Output 1. For the courtesy light connected to Output 1, the command is only enabled when this output is programmed in "courtesy light" mode (Control unit functions > advanced parameters > output configuration > output 1 (flash) > courtesy light). CAUTION! – The courtesy light is switched off automatically if the relative time interval elapses, as programmed in the function "courtesy light time" (Control unit functions > advanced parameters > output configuration > courtesy light time). Input configured as normally open.
<b>Apartment block</b>	Step-by-step Program the required operating mode, ss apartment block 1 ("command configuration" > "step-by-step" > operating mode: ss apartment block 1)	This command is factory set to Input 1, with operating mode "ss apartment block 1" and operating sequence "open- stop - close - open". When the command is sent, the control unit makes the automation run the manoeuvre following that previously (or still) in execution, according to the order of manoeuvres given in the programmed sequence. Note – This apartment block step-by-step command is used for apartment blocks and in general envisages programming of all apartment block transmitters with a single "apartment block step-by-step" key. Input configured as normally open.
<b>Stop</b>	Stop in closure Program the desired mode from those listed in Table 1-L ("command configuration" > "Stop in closure" > mode ...)	When this command is sent, the control unit stops the manoeuvre in progress and activates the application to execute the set operating mode. Input configured as normally closed.
<b>Emergency stop (0x28)</b>		When this command is sent, the door opens regardless of its position. The input must remain active. The safety equipment is ignored and all close commands are also ignored (button press, automatic closure, etc.). Only the hardware safeties remain active. The door's operation is restored when the input is deactivated. Input configured as normally closed.
<b>Interlocking (0x29)</b>		When this command is sent, the control unit stops the manoeuvre in progress. Input configured as normally closed. It is used together with an output configured as Interlocking (see Interlocking output)
<b>Apartment block open</b>	Opening Program the required operating mode, apartment block 1 open ("command configuration" > "opening" > operating mode apartment block 1 open)	When this command is sent, the control unit activates the application to perform the opening manoeuvre only until the limit switch is reached. Note – This command is useful when using control photocells or a magnetic detector loop. Input configured as normally open.
<b>Photo Safety function</b>	Photo Program the desired mode from those listed in Table 1-F ("command configuration" > "photo" > mode ...)	When this command is sent, the control unit activates the application according to the selected manoeuvre type. Input configured as normally closed.
<b>Photo 1 Safety function</b>	Photo 1 Program the desired mode from those listed in table 1-G ("command configuration" > "photo 1" > mode ...)	When this command is sent, the control unit activates the application according to the selected manoeuvre type. Input configured as normally closed.
<b>Photo 2 Safety function</b>	Photo 2 Program the desired mode from those listed in table 1-H ("command configuration" > "photo 2" > mode ...)	When this command is sent, the control unit activates the application according to the selected manoeuvre type. Input configured as normally closed.
<b>Photo 3 Safety function</b>	Photo 3 Program the desired mode from those listed in table 1-I ("command configuration" > "photo 3" > mode ...)	When this command is sent, the control unit activates the application according to the selected manoeuvre type. Input configured as normally closed.
<b>Release and open</b>		When this command is sent, the control unit is released (restoring normal operating status) and activates the application to execute an Opening manoeuvre. Input configured as normally open.
<b>Release and close</b>		When this command is sent, the control unit is released (restoring normal operating status) and activates the application to execute a Closing manoeuvre. Input configured as normally open.
<b>Automatic opening active</b>		This command enables the activation or deactivation of the function for bluebus control photocells and inputs configured in "apartment block open" mode. Note – the factory setting of this function is "active". For example, if this function is active, when the control photocells are engaged, the control unit activates the application to execute an Opening manoeuvre. Input configured as normally open.
<b>Deactivate automatic opening</b>		This command enables deactivation of the "automatic opening active" mode described above. Input configured as normally open.

## COMMAND CONFIGURATION

This item covers the command categories associable with inputs 1 - 2 - 3 (refer to the section "input configuration - Table 1" to check the commands available). Each command category features various operating modes as described in a table (1-A, 1-B, etc.):

### Step-by-step

In this command category the user can select one of the operating modes specified in Table 1-A.

**TABLE 1-A: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Industrial mode</b>	This runs the sequence "open in semiautomatic- close in hold-to-run".
<b>Open - stop - close - stop</b>	This executes the above sequence.
<b>Open - Stop - Close - Open</b>	Operating mode set in factory (Input 1 - "step-by-step" command). This executes the above sequence.
<b>Open - Close - Open - Close</b>	This executes the above sequence.
<b>Apartment block 1 step-by-step</b>	Runs the sequence "close - stop - open - open", until it reaches the fully open position. Note - If another command is sent after this one, the application executes the Closing manoeuvre with the same sequence.
<b>Apartment block 2 step-by-step</b>	Runs the sequence "close - stop - open - open" until the fully open position is reached. Note - If another command is sent after this one, the application executes the Closing manoeuvre with the same sequence. Important - When sending a command, if the transmitter key is held down for more than 2 seconds, the control unit activates a Stop.
<b>Step-by-step 2</b>	This executes the sequence "open - stop - close - open". Important - When sending a command, if the transmitter key is held down for more than 2 seconds, the control unit activates a "partial open 1" command (input configuration > Table 1).
<b>Hold-to-run</b>	The Opening or Closing manoeuvre is executed exclusively if the transmitter key is held down (hold-to-run).

### Partial open

In this command category the user can select one of the operating modes specified in Table 1-B.

**TABLE 1-B: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Open - stop - close - stop</b>	Operating mode set in factory. This executes the above sequence.
<b>Open - Stop - Close - Open</b>	This executes the above sequence.
<b>Open - Close - Open - Close</b>	This executes the above sequence.
<b>Apartment block 1 step-by-step</b>	This executes the sequence "close - stop - partial open 1- partial open 1" until the position is reached as programmed in the function "Partial Open 1". Note - If another command is sent after this one, the application executes the Closing manoeuvre with the same sequence.
<b>Apartment block 2 step-by-step</b>	This executes the sequence "close - stop - partial open 1 - partial open 1" until the position is reached as programmed in the function "Partial Open 1". Note - If another command is sent after this one, the application executes the Closing manoeuvre with the same sequence. Important - When sending a command, if the transmitter key is held down for more than 2 seconds, the control unit activates a Stop.
<b>Hold-to-run</b>	The Partial open 1 or Closing manoeuvre is executed exclusively if the transmitter key is held down (hold-to-run).
<b>Industrial mode</b>	This runs the sequence "open in semiautomatic- close in hold-to-run".

### Open

In this command category the user can select one of the operating modes specified in Table 1-C.

**TABLE 1-C: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Open - Stop - Open</b>	Operating mode set in factory (Input 2 - "open" command). This executes the above sequence.
<b>Apartment block 1</b>	This executes the sequence "open - open". Important - When sending a command, if the transmitter key is held down for more than 2 seconds, the control unit activates a Stop.
<b>Apartment block 2</b>	This executes the Opening sequence.
<b>Open 2</b>	Important - When sending a command, if the transmitter key is held down for more than 2 seconds, the control unit activates a "partial open 1" command (input configuration > Table 1).
<b>Hold-to-run Open</b>	The Opening manoeuvre is executed exclusively if the transmitter key is held down (hold-to-run).

### Close

In this command category the user can select one of the operating modes specified in Table 1-D.



**TABLE 1-D: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Close - stop - close</b>	Operating mode set in factory (Input 3 - "close" command). This executes the above sequence.
<b>Apartment block 1 close</b>	This executes the sequence "close - close".
<b>Apartment block 2 close</b>	This executes the sequence "close - close". Important – When sending a command, if the transmitter key is held down for more than 2 seconds, the control unit activates a Stop.
<b>Hold-to-run close</b>	The Closing manoeuvre is executed exclusively if the hold-to-run command is used.

**Stop**

In this category, you can choose one of the operating modes listed in table 1-E.

**TABLE 1-E: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Stop</b>	Operating mode set in factory. When the control unit receives the command, it stops the manoeuvre in progress gradually and in a short time (not instantly).
<b>Stop and brief inversion</b>	When the control unit receives the "stop" command, it stops the manoeuvre in progress and activates the application to perform a brief inversion in the opposite direction.

**Photo**

In this category, you can choose one of the operating modes listed in table 1-F.

**TABLE 1-F: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Stop and inversion</b>	Operating mode set in factory. When the control unit receives the command, it stops the Closing manoeuvre in progress and activates a total inversion (Opening). Caution! – During execution of the Opening manoeuvre, this command is ignored.
<b>Stop and brief inversion</b>	When the control unit receives the command, it stops the Closing manoeuvre in progress and activates the application to perform a brief inversion in the opposite direction (Opening). Caution! – During execution of the Opening manoeuvre, this command is ignored.
<b>Stop</b>	When the control unit receives the command is stop the current Close manoeuvre. Caution! – During execution of the Opening manoeuvre, this command is ignored.

**Photo 1**

In this category, you can choose one of the modes listed in table 1-G.

**TABLE 1-G: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Stop</b>	When the control unit receives the command is stop the current Close manoeuvre. Caution! – During execution of the Opening manoeuvre, this command is ignored.
<b>Temporary stop</b>	When the control unit receives the command, it stops the Closing manoeuvre for the entire time that the command remains active. Otherwise, when the command is no longer active, the control unit activates the application to perform an Opening manoeuvre. Caution! – During execution of the Opening manoeuvre, this command is ignored.

**Photo 2**

In this category, you can choose one of the modes listed in table 1-H.

**TABLE 1-H: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Stop and inversion</b>	Operating mode set in factory. When the control unit receives the command, it stops the Opening manoeuvre in progress and activates a total inversion (Closing). Caution! – During execution of the Opening manoeuvre, this command is ignored.
<b>Stop and brief inversion</b>	When the control unit receives the command, it stops the Opening manoeuvre in progress and activates the application to perform a brief inversion in the opposite direction (Closing). Caution! – During execution of the Opening manoeuvre, this command is ignored.
<b>Stop</b>	When the control unit receives the command, it stops the Opening manoeuvre in progress. Caution! – During execution of the Opening manoeuvre, this command is ignored.

**Photo 3**

In this category, you can choose one of the modes listed in table 1-I.

**TABLE 1-I: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Temporary stop</b>	Operating mode set in factory. When the control unit receives the command, it stops the Closing manoeuvre for the entire time that the command remains active. Otherwise, when the command is no longer active, the control unit activates the application to perform an Opening manoeuvre.
<b>Stop</b>	When the control unit receives the command, it stops the manoeuvre in progress.

**Alt in opening**

In this category, you can choose one of the modes listed in table 1-L.

**TABLE 1-L: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>None</b>	
<b>Stop</b>	Operating mode set in factory. When this type of function is set, when the control unit receives the command, it stops the Opening manoeuvre in progress immediately.
<b>Stop and brief inversion</b>	When the control unit receives the command, it stops the Opening manoeuvre in progress immediately and activates the application to perform a brief inversion in the opposite direction (Closing).
<b>Alt and inversion</b>	When the control unit receives the command, it immediately stops the Closing manoeuvre in progress and activates the application to perform a total inversion of the manoeuvre in the opposite direction (Opening).

**Stop in closure**

In this category, you can choose one of the modes listed in table 1-M.

**TABLE 1-M: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>None</b>	
<b>Stop</b>	Operating mode set in factory. When the control unit receives the command, it stops the Closing manoeuvre in progress.
<b>Stop and brief inversion</b>	When the control unit receives the command, it stops the Closing manoeuvre in progress immediately and activates the application to perform a brief inversion in the opposite direction (Opening).
<b>Alt and inversion</b>	When the control unit receives the command, it immediately stops the Closing manoeuvre in progress and activates the application to perform a total inversion of the manoeuvre in the opposite direction (Opening).

**Stop in pre-closure (0x6e)**

In this category, you can choose one of the modes listed in table 1-N for sensitive edge intervention within the inhibition position

**TABLE 1-N: COMMAND CONFIGURATION**

MODE	DESCRIPTION
<b>Stop</b>	Operating mode set in factory. When the control unit receives the command, it immediately stops the Closing manoeuvre in progress.
<b>None</b>	The edge is ignored and the manoeuvre continues until the door reaches the set closed position.

**OUTPUT CONFIGURATION**

This item covers the functions available and associable with Outputs 1 (flash) - 2 - 3 present on the control unit of an automation. Each output has various functions as described in a table (Table 2, Table 3, etc.):

**OUTPUT**

Traffic Light Output

The following connections are available:

8: Common 24V

9: output OUT-TL1

10: output OUT-TL2

11: output OUT-TL3

**TABLE 1: OUTPUT CONFIGURATION**

FUNCTION	DESCRIPTION
<b>Red traffic light (0x0d)</b>	This function indicates activity of the application during the phases of a Closing manoeuvre. slow flashing = execution of Closing manoeuvre; light permanently on = application in maximum Closing position; light off = application in other positions. The OUT-TL2 output at 24V DC / max 5W is used

<b>Green traffic light (0x0e)</b>	<p>This function indicates activity of the application during the phases of an Opening manoeuvre.</p> <p>slow flashing = execution of Opening manoeuvre;  light permanently on = application in maximum Opening position;  light off = application in other positions.</p> <p>The OUT-TL3 output at 24V DC / max 5W is used</p>
<b>One way traffic light (0x1a)</b>	<p>This function operates as follows:</p> <p>OUT-TL2 and OUT-TL3 are active when the door is open, and deactivated in all other conditions.</p> <p>The function uses outputs OUT-TL2 and OUT-TL3 at 24V / 5W</p>
<b>One-way traffic light flashing (0x1b)</b>	<p>This function operates as follows:</p> <p>OUT-TL2 flashes when opening and stays active with the door open, deactivated in all other conditions.</p> <p>OUT-TL3 flashes when closing and stays active with the door stationary in any position other than fully open; deactivated in all other conditions.</p> <p>The function uses outputs OUT-TL2 and OUT-TL3 at 24V / 5W</p>
<b>Two-way alternating traffic light (0x1a)</b>	<p>This function operates as follows:</p> <p>When an open command is sent from inside, OUT-TL2 (green traffic light) is activated, giving priority to the person inside.</p> <p>When an open command is sent from outside, OUT-TL3 (green traffic light) is activated, giving priority to the person outside.</p> <p>When the door is closed or closing, both traffic lights are deactivated (red traffic light).</p> <p>For the system to operate in this mode, the commands must be sent to the control unit as follows:</p> <p>Commands from inside: Input 2 configured as Open  Commands from outside: Input 3 configured as Open</p> <p>The function uses outputs OUT-TL2 and OUT-TL3 at 24V / 5W</p>
<b>Door status (0x1e)</b>	<p>This function operates as follows:</p> <p>When the door is closed, OUT-TL1 is activated and all others remain off.</p> <p>When the door is open, OUT-TL2 is activated and all others remain off.</p> <p>When a door is in any position other than fully open or closed, OUT-TL3 is activated and all others remain off.</p> <p>The function uses outputs OUT-TL1, OUT-TL2 and OUT-TL3 at 24V / 5W</p>
<b>sca (0x01)</b>	<p>The programmed light indicates the operating status of the control unit.</p> <p>light off = application in maximum Closing position;  slow flashing = application Opening manoeuvre execution phase;  quick flashing = application Closing manoeuvre execution phase;  light permanently on = application in maximum Opening position.</p> <p>The OUT-TL1 output at 24V DC / max 5 W is used</p>
<b>Gate open (0x02)</b>	<p>The programmed light indicates the operating status of the control unit.</p> <p>light on = application in maximum Opening position;  light off = application in other positions.</p> <p>The OUT-TL1 output at 24V DC / max 5 W is used</p>
<b>Gate closed (0x03)</b>	<p>The programmed light indicates the operating status of the control unit.</p> <p>light on = application in maximum Closing position;  light off = application in other positions.</p> <p>The OUT-TL1 output at 24V DC / max 5 W is used</p>
<b>Service light (0x04)</b>	<p>The programmed light indicates the count of manoeuvres completed and therefore the need (or not) for system maintenance operations.</p> <p>light on for 2 sec at start of Opening manoeuvre = number of manoeuvres less than 80%;  light flashing during execution of entire manoeuvre = number of manoeuvres between 80 and 100%;  light always flashing = number of manoeuvres over 100%.</p> <p>The OUT-TL1 output at 24V DC / max 5 W is used</p>
<b>Flasher at 24V (0x17)</b>	<p>This function enables the flashing light to indicate execution of a manoeuvre in progress with flashes at regular intervals (0.5 sec ON, 0.5 sec OFF).</p> <p>The OUT-TL2 output at 24V DC / max 5 W is used</p>
<b>Electric lock 1 (0x07)</b>	<p>With this function programmed, when an Opening manoeuvre is performed the electric lock is activated for a time as set in the function "electric lock time – output configuration".</p> <p>The OUT-TL2 output at 24V DC / max 5 W is used</p>
<b>Electric block 1 (0x09)</b>	<p>With this function programmed, when an Opening manoeuvre is performed the electric lock is activated for a time as set in the function "electric lock time – output configuration".</p> <p>The OUT-TL2 output at 24V DC / max 5 W is used</p>

<b>Suction cup 1 (0x0b)</b>	<p>With this function programmed, the suction cup is activated when the application is in the maximum Closing position. Note – The suction cup is disabled in all other situations. When the suction cup is disabled, before an Opening manoeuvre is started, the time interval as programmed in the function “suction cup time – output configuration” is activated, which delays the start of the manoeuvre.</p> <p>The OUT-TL2 output at 24V DC / max 5 W is used</p>
<b>Courtesy light (0x06)</b>	<p>This function type is ON/OFF. Important – For safety reasons, as the light is not controlled by a timer, use of an adequate light, able to withstand the heat of the light emitted, is recommended.</p> <p>The OUT-TL3 output at 24V DC / max 5 W is used</p>
<b>Radio channel 1 (0x0f)</b>	<p>When a transmitter sends a command, this output is activated. This mode is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. CAUTION – If this channel is not free on the control unit's receiver, due to having been previously memorised with a command, when the channel is activated by the transmitter, the control unit only activates the programmed output, and ignores the motor command.</p> <p>The OUT-TL3 output at 24V DC / max 5 W is used</p>
<b>Radio channel 2 (0x10)</b>	<p>When a transmitter sends a command, this output is activated. This mode is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. CAUTION – If this channel is not free on the control unit's receiver, due to having been previously memorised with a command, when the channel is activated by the transmitter, the control unit only activates the programmed output, and ignores the motor command.</p> <p>The OUT-TL3 output at 24V DC / max 5 W is used</p>
<b>Radio channel 3 (0x11)</b>	<p>When a transmitter sends a command, this output is activated. This mode is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. CAUTION – If this channel is not free on the control unit's receiver, due to having been previously memorised with a command, when the channel is activated by the transmitter, the control unit only activates the programmed output, and ignores the motor command.</p> <p>The OUT-TL3 output at 24V DC / max 5 W is used</p>
<b>Radio channel 4 (0x12)</b>	<p>When a transmitter sends a command, this output is activated. This mode is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. CAUTION – If this channel is not free on the control unit's receiver, due to having been previously memorised with a command, when the channel is activated by the transmitter, the control unit only activates the programmed output, and ignores the motor command.</p> <p>The OUT-TL3 output at 24V DC / max 5 W is used</p>

<b>output 1 (flash)</b>	
In this output the user can select one of the functions specified in Table 2.	
<b>TABLE 2: OUTPUT CONFIGURATION</b>	
<b>MODE</b>	<b>DESCRIPTION</b>
<b>Not specified</b>	The output is never activated
<b>sca (= gate open indicator)</b>	<p>The programmed light indicates the operating status of the control unit.</p> <p>light off = application in maximum Closing position;  slow flashing = application Opening manoeuvre execution phase;  quick flashing = application Closing manoeuvre execution phase;  light permanently on = application in maximum Opening position.</p> <p>Output active 24 Vdc / max 10 W</p>
<b>Sca1</b>	<p>The programmed light indicates the operating status of the control unit.</p> <p>light permanently on = application in maximum Opening or Closing position;  slow flashing = application Opening manoeuvre execution phase;  quick flashing = application Closing manoeuvre execution phase;  light off = application stationary, in a different position than maximum Closing or maximum Opening.</p> <p>Output active 24 V DC / max 10 W</p>
<b>Sca2</b>	<p>The programmed light indicates the operating status of the control unit.</p> <p>light permanently on = application in maximum Closing position;  slow flashing = application Opening manoeuvre execution phase;  quick flashing = application Closing manoeuvre execution phase;  light off = application stopped in maximum Opening position.</p> <p>Output active 24 V DC / max 10 W</p>
<b>gate open</b>	<p>The programmed light indicates the operating status of the control unit.</p> <p>light on = application in maximum Opening position;  light off = application in other positions.</p> <p>Output active 24 Vdc / max 10 W</p>

<b>gate closed</b>	The programmed light indicates the operating status of the control unit. light on = application in maximum Closing position; light off = application in other positions. Output active 24 Vdc / max 10 W
<b>maintenance indicator light</b>	The programmed light indicates the count of manoeuvres completed and therefore the need (or not) for system maintenance operations. light on for 2 sec at start of Opening manoeuvre = number of manoeuvres less than 80%; light flashing during execution of entire manoeuvre = number of manoeuvres between 80 and 100%; light always flashing = number of manoeuvres over 100%.
<b>Flasher</b>	This function enables the flashing light to indicate execution of a manoeuvre in progress with flashes at regular intervals (0.5 sec ON, 0.5 sec OFF). Output active 12 Vdc / max 21 W
<b>Flasher 1</b>	This function enables the flasher to flash constantly at regular intervals (0.5 sec ON; 0.5 sec. OFF) both during a manoeuvre and when the pole is stationary. Output active 24 V DC / max 10 W
<b>Flasher at 24V</b>	This function enables the flashing light to indicate execution of a manoeuvre in progress with flashes at regular intervals (0.5 sec ON, 0.5 sec OFF). Output active 24 V DC / max 10 W
<b>courtesy light</b>	This function type is ON/OFF. Important – For safety reasons, as the light is not controlled by a timer, use of an adequate light, able to withstand the heat of the light emitted, is recommended. Output active 24 Vdc / max 10 W
<b>Always on</b>	This function enables the indicator light to remain constantly lit both during a manoeuvre and when the pole is stationary. Output active 24 V DC / max 10 W
<b>electric lock 1</b>	With this function programmed, when an Opening manoeuvre is performed the electric lock is activated for a time as set in the function “electric lock time – output configuration”. Output active 24 Vdc / max 10 W
<b>electric block 1</b>	With this function programmed, when an Opening manoeuvre is performed the electric lock is activated for a time as set in the function “electric lock time – output configuration”. Output active 24 dc/ max 10 VA
<b>suction cup 1</b>	With this function programmed, the suction cup is activated when the application is in the maximum Closing position. Note – The suction cup is disabled in all other situations. When the suction cup is disabled, before an Opening manoeuvre is started, the time interval as programmed in the function “suction cup time – output configuration” is activated, which delays the start of the manoeuvre. Output active 24Vdc / max 10 W
<b>red traffic light</b>	This function indicates activity of the application during the phases of a Closing manoeuvre. slow flashing = execution of Closing manoeuvre; light permanently on = application in maximum Closing position; light off = application in other positions. Output active 24Vdc / max 10 W
<b>green traffic light</b>	This function indicates activity of the application during the phases of an Opening manoeuvre. slow flashing = execution of Opening manoeuvre; light permanently on = application in maximum Opening position; light off = application in other positions. Output active 24Vdc / max 10 W
<b>Interlocking (0x22)</b>	This output is used to create the interlocking system between 2 doors. This use enables the user to open one door, only if the other one is closed. The output changes status when all the following conditions are valid: - the door is closed; - it receives a command to open; - no safety device prevents the manoeuvre. The output is always active when the door is any position other than totally closed. To establish the connection, a 24Vdc connection interface relay must be used between this output and an input configured as Interlocking on the second control unit.
<b>radio channel no.1</b>	If this radio channel is set for the configuration of output 1 (flash), this channel is activated when a command is set with the transmitter. It is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. WARNING – If this channel is not free on the control unit receiver, as previously memorised with a command, the control unit activates exclusively the programmed output when the channel is activated with the transmitter, ignoring the command to the motor. Output active 24Vdc / max 10 W

<b>radio channel no.2</b>	If this radio channel is set for the configuration of output 1 (flash), this channel is activated when a command is set with the transmitter. This mode is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. WARNING – If this channel is not free on the control unit receiver, as previously memorised with a command, the control unit activates exclusively the programmed output when the channel is activated with the transmitter, ignoring the command to the motor. Output active 24Vdc / max 10 W
<b>radio channel no.3</b>	If this radio channel is set for the configuration of output 1 (flash), this channel is activated when a command is set with the transmitter. This mode is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. WARNING – If this channel is not free on the control unit receiver, as previously memorised with a command, the control unit activates exclusively the programmed output when the channel is activated with the transmitter, ignoring the command to the motor. Output active 24Vdc / max 10 W
<b>radio channel no.4</b>	If this radio channel is set for the configuration of output 1 (flash), this channel is activated when a command is set with the transmitter. This mode is useful if installing external devices (for example, an auxiliary light) in the same system to be controlled with a single transmitter. WARNING – If this channel is not free on the control unit receiver, as previously memorised with a command, the control unit activates exclusively the programmed output when the channel is activated with the transmitter, ignoring the command to the motor. Output active 24Vdc / max 10 W
<b>Control unit status (0x1f)</b>	This output copies the operation of the Bluebus led which determines the status of the control unit, including the diagnostics. In addition, the output is deactivated when the safety chain (ALT, motor thermal cutout, SAFE, STOP key on cover) is interrupted. Output active 24 V DC / max 10 W

<b>output 2</b>
In this output the user can select one of the functions specified in Table 2.
<b>output 3</b>
In this output you can choose one of the functions described in Table 2, except for the "flasher 24" and "control unit status" functions.
<b>electric lock time</b>
This parameter is expressed in seconds and can be set with a value from 0.1 to 10 sec.; the factory setting is 2 sec. This function enables programming on the Control unit of the required time interval to pass between the end of a Closing manoeuvre and the start of an Opening manoeuvre.
<b>suction cup time</b>
This parameter is expressed in seconds and can be set with a value from 0.1 to 10 sec.; the factory setting is 2 sec. This function enables programming on the Control unit of the required time interval to pass between the end of a Closing manoeuvre and the start of an Opening manoeuvre, when the suction cup is disengaged.
<b>Courtesy light time</b>
This parameter is expressed in seconds and can be set with a value from 0 to 250 sec.; the factory setting is 60 sec. This function programs the courtesy light on time for the various outputs.
<b>It disables short circuit control on outputs (0xa6)</b>
This parameter is of the ON/OFF type; the factory setting is "OFF". When this function is set to ON it allows the short circuit control on outputs 1 and 2 to be disabled

<b>Inverter (inverters only) (0xfe)</b>
<b>• Inverter mode (0xad)</b>
This parameter is of the ON / OFF type; the factory setting is "OFF". When set to "ON", it activates the operating logic of motors with MEIN series on-board inverters. Important – After activating this function, you must run device learning again.
<b>Speed management (inverters only)</b>
<b>• Open speed (0x42)</b>
This parameter can be set with a value from 20% to 180%; the factory setting is 100%. The function enables programming of the required motor speed during an Opening manoeuvre. Important – After setting this parameter, you must run a few manoeuvres to allow the system to recalculate the decelerations.
<b>• opening deceleration (0x45)</b>
This parameter can be set with a value from 20% to 180%; the factory setting is 45%. The function enables programming of the required motor speed during the initial deceleration phase of an opening manoeuvre. Important – After setting this parameter, you must run a few manoeuvres to allow the system to recalculate the decelerations.
<b>• closing speed (0x43)</b>
This parameter can be set with a value from 20% to 180%; the factory setting is 100%. The function enables programming of the required motor speed during a Closing manoeuvre. Important – After setting this parameter, you must run a few manoeuvres to allow the system to recalculate the decelerations.
<b>• closing deceleration speed (0x46)</b>
This parameter can be set with a value from 20% to 180%; the factory setting is 45%. The function enables programming of the required motor speed during the initial deceleration phase of an opening manoeuvre. Important – After setting this parameter, you must run a few manoeuvres to allow the system to recalculate the decelerations.

<b>• deceleration speed (0x44)</b>
This parameter can be set with a value from 20% to 100%; the factory setting is 20%. This function enables you to program the speed of the motor while learning the open and close positions and during the final phase of deceleration. Important – Always set this to the minimum speed required to operate the door. Setting too high a speed can make it difficult to precisely determine the stop position.
<b>Start up (0x8f)</b>
The parameter can be set from 0 to 70V; the factory setting is 30V. The function sets the voltage at the start of a manoeuvre, to ensure sufficient torque at low motor speeds. Important – This parameter must be set the value required for the motor to actually start the manoeuvre. Too high a setting can damage the inverter and the motor by increasing the voltage too much.
<b>Minimum frequency (0xac)</b>
The parameter can be set from 2 to 7Hz; the factory setting is 2Hz. This sets the minimum start and stop frequency for the manoeuvre and, combined with the start-up parameters, determines the automation's ability to start and stop moving the door. Important - Too high a setting can damage the inverter and the motor by increasing the voltage too much.
<b>Acceleration (0x5e)</b>
This parameter can be set from 30 to 300rad/s <sup>2</sup> . The function sets the initial acceleration. Important - Too high a setting can damage the inverter and the motor by increasing the voltage too much.
<b>Deceleration (0x5f)</b>
This parameter can be set from 30 to 300rad/s <sup>2</sup> . The function sets the deceleration. Important - Too high a setting can damage the inverter and the motor by increasing the voltage too much.
<b>Stop deceleration (0xae)</b>
This parameter can be set from 50 to 500rad/s <sup>2</sup> . The function sets the emergency deceleration, when the door stops because of a safety device trip. Important - Too high a setting can damage the inverter and the motor by increasing the voltage too much.
<b>Motor heating (0x9e)</b>
This parameter is of the ON / OFF type; the factory setting is "OFF". When set to "ON", it activates heating the motor when the ambient temperature is below 5°C.
<b>Reserved 1 (0xaa)</b>
This parameter accesses the inverter overcurrent controls. To modify this setting, contact Nice technical service.
<b>Reserved 2 (0xab)</b>
This parameter accesses the inverter protection equipment. To modify this setting, contact Nice technical service.

<b>DIAGNOSTICS</b>
<b>Automation position</b>
Indicates the physical position of the encoder in encoder pulses.
<b>Inputs / Outputs</b>
This function enables the display of the operating status of all inputs and outputs present on the control unit. The functions of the inputs and outputs are described in Table 4.
<b>TABLE 4: Input/output DIAGNOSTICS</b>

This function enables the display of the device type, operating status, and configuration of the devices connected to the Bluebus output.	DESCRIPTION
<b>Diagnosis 1 - IN</b>	
<b>RADIO INPUTS (On / Off):</b>	
<b>Channel 1</b>	Indicates when radio receiver channel 1 is active.
<b>Channel 2</b>	Indicates when radio receiver channel 2 is active.
<b>Channel 3</b>	Indicates when radio receiver channel 3 is active.
<b>Channel 4</b>	Indicates when radio receiver channel 4 is active.
<b>SERIAL RADIO INPUTS</b>	Indicates when the control unit receives a serial command via BusT4 from a radio receiver; these commands range from minimum 1 to maximum 15.
<b>BOARD KEYS:</b>	
<b>no. 1</b>	Indicates when key 1 is pressed (= OPEN) on the control unit.
<b>no. 2</b>	Indicates when key 2 is pressed (= STOP) on the control unit.
<b>no. 3</b>	Indicates when key 3 is pressed (= CLOSE) on the control unit.
<b>DIRECTION SELECTION</b>	Indicates the status of the direction selector for a manoeuvre.
<b>INPUT STATUS:</b>	
<b>inp 1</b>	Indicates when input 1 is active.
<b>inp 2</b>	Indicates when input 2 is active.
<b>inp 3</b>	Indicates when input 3 is active.
<b>inp alt</b>	Indicates when the alt input is active.
<b>ALT CONFIGURATION</b>	Indicates the type of connection on the alt terminal. The connections are of three types: not configured; NC; NO; 1 8K2 resistive edge; 2 8K2 resistive edges; 1 OSE optical edge; out of range.
<b>MOTOR 1 (On / Off):</b>	
<b>Limit switch on opening</b>	Indicates when motor 1 reaches the maximum opening position.
<b>Limit switch on closing</b>	Indicates when motor 1 reaches the maximum closing position.
<b>MANOEUVRE THRESHOLD:</b>	Indicates the operating status of the manoeuvre limiter, expressed in levels:

	Level 1: OK; Level 2: THRESHOLD 1; the manoeuvre is started with a 2 second delay; Level 3: THRESHOLD 2; the manoeuvre is started with a 5 second delay; Level 4: MOTOR ALARM; the manoeuvre is only enabled with the hold-to-run control.
<b>LAST 8 MANOEUVRES</b>	Indicates any malfunctions occurring during normal operation of the application, showing the last 8 manoeuvres completed.
<b>AUTOMATIC OPENING</b>	Indicates if this function is active.
<b>Diagnosis 1 - OUT</b>	
<b>GENERIC DATA:</b>	
<b>Stand-by</b>	Indicates when the automation is in the standby status.
<b>POWER:</b>	Indicates the type of electrical power used by the automation: mains (120/230 V AC) or backup battery (24 V DC)
<b>MEMORY ERRORS:</b>	
<b>Map M1</b>	Indicates whether there is an error in the memorised data, related to the values for the force required by motor 1 to complete a manoeuvre.
<b>Rego</b>	Indicates whether there is an error in the memorised data on the control unit regarding settable parameters.
<b>Functions</b>	Indicates whether there is an error in the memorised data regarding the functions programmable with Oview.
<b>Stop</b>	Indicates whether there is an error in the memorised data regarding the configuration of the alt input.
<b>Bluebus</b>	Indicates whether there is an error in the memorised data regarding the configuration of the devices connected to the bluebus input.
<b>Positions</b>	Indicates whether there is an error in the memorised data regarding positions.
<b>ENCODER STATUS:</b>	
<b>Abs M1</b>	Indicates whether there is a reading error or operating malfunction on the absolute encoder of motor 1.
<b>OUTPUTS:</b>	
<b>Out 1</b>	Indicates when output 1 is active. Caution – 12/24 V DC voltage present.
<b>Out M1</b>	Indicates when motor 1 is in operation.
<b>ALARMS:</b>	
<b>Out 1 overload</b>	Indicates an electrical overload or short circuit on output 1 or on the courtesy light of the control unit.
<b>Out 2 overload</b>	Indicates an electrical overload or shortcircuit at output 2.
<b>M1 low overtravel</b>	Indicates that the absolute encoder of motor 1 is in a position close to the minimum limit (0%), below which the motor does not function.
<b>M1 high overtravel</b>	Indicates that the absolute encoder of motor 1 is in a position close to the maximum limit (100%), over which the motor does not function.

#### other parameters

This function enables display of the operating status of some parameters measured by the control unit. These parameters are described in Table 5.

**TABLE 5: DIAGNOSTICS of other parameters**

PARAMETER	DESCRIPTION
<b>Diagnosics 2</b>	
<b>MISCELLANEOUS PARAMETERS:</b>	
<b>Courtesy light</b>	Indicates the timer for shutoff of the courtesy light.
<b>Pause time</b>	Indicates the timer for counting the pause time between one manoeuvre and the next.
<b>Service voltage</b>	Indicates the voltage supplied to external devices.
<b>Bus medium current</b>	Indicates the current absorption of the devices connected to the bluebus output, calculated as a percentage.
<b>MOTOR 1:</b>	
<b>Torque</b>	Indicates the torque generated by motor 1 during the manoeuvre, calculated as a percentage.
<b>Speed</b>	Indicates the speed of motor 1 during the manoeuvre, calculated as a percentage.
<b>Voltage</b>	Indicates the mean voltage to be supplied to motor 1 during the manoeuvre, calculated as a percentage.
<b>Position</b>	Indicates the physical encoder position, as a percentage: the limits implemented are the encoder minimum limit (equal to 0 = 0%) and the encoder maximum limit (equal to 4096 = 100%). This data is useful to understand whether the encoder is in an overtravel position, i.e. outside the operating zone of the absolute encoder.

#### bluebus device diagnostics

This function displays the type, operating status and configuration of devices connected at the Bluebus output. These parameters are described in Table 6.



**TABLE 6: DIAGNOSTICS of bluebus devices**

PARAMETER	DESCRIPTION
<b>Bluebus</b>	
<b>PHOTOCELLS</b>	
<b>PHOTO</b>	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>PHOTO II</b>	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>PHOTO 1</b>	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>PHOTO 1 II</b>	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>PHOTO 2</b>	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>PHOTO 2 II</b>	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>PHOTO 3</b>	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>FT A</b>	Indicates whether the sensitive edge is present, the relative operating status and the correct memorisation in the control unit.
<b>FT B</b>	Indicates whether the sensitive edge is present, the relative operating status and the correct memorisation in the control unit.
<b>FT C</b>	Indicates whether the sensitive edge is present, the relative operating status and the correct memorisation in the control unit.
<b>OPEN PHOTO</b>	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>OPEN PHOTO II</b>	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>COMMANDS:</b>	
<b>CMD 1</b>	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>CMD 2</b>	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>CMD 3</b>	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>CMD 4</b>	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
<b>CMD 5 (SEM1)</b>	Indicates whether the "traffic light 1" control device and whether it is memorised correctly in the control unit.
<b>CMD 6 (SEM2)</b>	Indicates whether the "traffic light 2" control device and whether it is memorised correctly in the control unit.
<b>OTHER:</b>	
<b>GATE</b>	Indicates the operating status of the application.
<b>BLOCK AUTOMATION</b>	Indicates when the automation is blocked following a "Block" command.
<b>MEMORY</b>	Indicates a problem regarding the data related to bluebus devices, memorised in the control unit.
<b>BUS</b>	Indicates whether there is a short circuit on the bluebus output.
<b>STAND-BY</b>	Indicates when the control unit is in standby status.
<b>OTHER DEVICES:</b>	
<b>COURTESY LIGHT</b>	Indicates whether the control device is present, the relative operating status and whether it is memorised correctly in the control unit.
<b>SUCTION CUP</b>	Indicates whether the control device is present, the relative operating status and whether it is memorised correctly in the control unit.
<b>LOCK</b>	Indicates whether the control device is present, the relative operating status and whether it is memorised correctly in the control unit.
<b>TRAFFIC LIGHTS:</b>	
<b>TRAFFIC LIGHT 1</b>	Indicates the operating status of the device.
<b>TRAFFIC LIGHT 2</b>	Indicates the operating status of the device.

**MAINTENANCE**

**Manual alarm threshold**

A value from 0 to 16777215 (manoeuvres) can be assigned to this parameter; the factory setting is 10000 (manoeuvres). This function enables programming of a reference limit, over which automation maintenance is required.

**Partial count**

This function enables the user to check the number of manoeuvres performed by an automation since it was last serviced.

**Delete maintenance**

This parameter is ON/OFF; the factory setting is "OFF". This function enables deletion of the "partial count" value; this is required after performing maintenance on the automation.

# ADVANCED FUNCTIONS

## Event log

This function enables the display of the events generated or received by the control unit. An "event" is a condition which changes the operating status of the control unit, such as: activation of an input, end of a manoeuvre, photocell or stop input tripped, etc. This section displays the date and type of an event.

## Firmware updates

The function can be carried out solely when the "o-view desktop" software is used, together with the O-view programmer with bluetooth module.

## User permits

This function enables the installer to decide which functions and parameters are to be selected for display and modifications by the user. For example, for safety reasons, the installer can decide to prevent the user from modifying the parameters related to automation motor force and speed.

User permissions can be managed exclusively by using the "installer password" (password management, common functions). Note – All parameters of the various functions of a control unit or receiver are factory set as disabled.