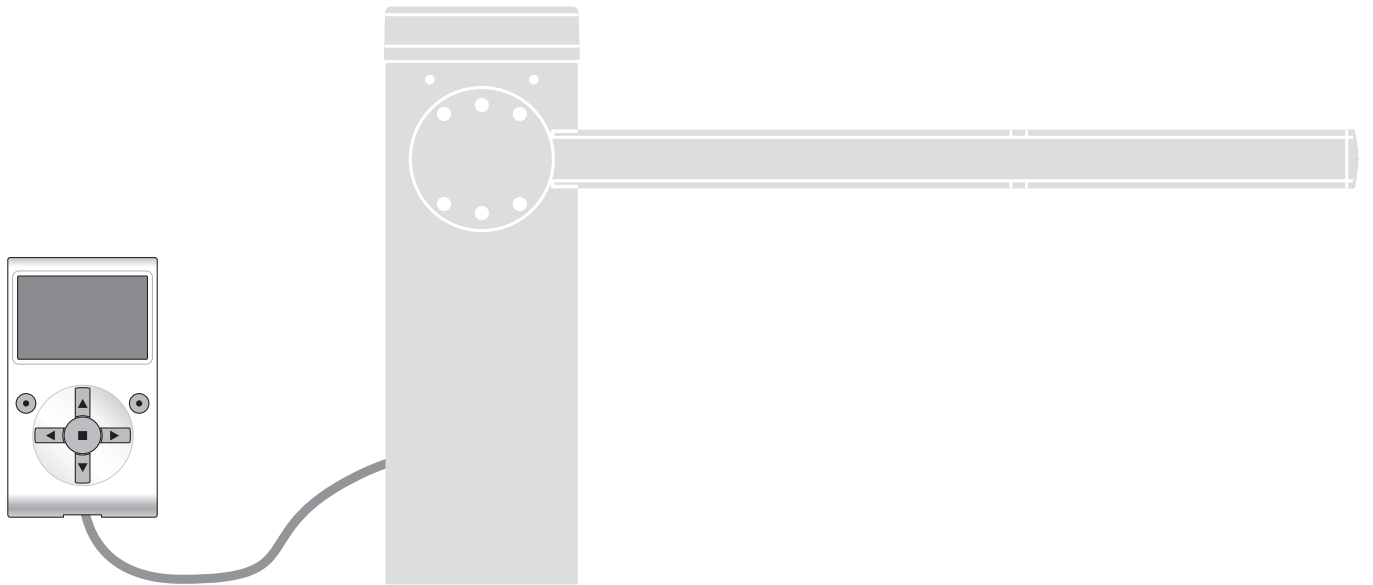# M/L-Bar

CE

Programmable functions

using the Oview programmer

Nice

COMMON FUNCTIONS

name

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.

series

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.

Address

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.

group

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, also if belonging 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 this group.

Firmware version (not modifiable)

This function enables the display of the version of the firmware present in a device.

Hardware version (not modifiable)

This function enables the display of the version of the hardware present in a device.

Serial number (not modifiable)

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.

password management:

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.* **Caution!** *– 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 itself. 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, at most 6 alphanumeric characters**. **Caution!** – Do not use uppercase letters.
- **the installer password, at most 6 alphanumeric characters**. **Caution!** – Do not use uppercase letters.

CONTROL UNIT FUNCTIONS

Installation

Bluebus search (0x0a)

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".

Position search

This function enables the measurement of the distance between the Closing limit position and Opening limit position (pole travel). This measurement is used by the control unit to ensure the calculation of the points at which the pole must start to decelerate during a manoeuvre and to determine the partial opening position. **Important** - To activate the position search, press "Start".

Position programming

• reverse rotation (0xa3)

This parameter type is ON/OFF; the factory setting is "OFF" (standard motor rotation; the factory setting for pole rotation is to the left). This function enables the user to program the direction of motor rotation on an automation; in other words it enables the inversion of the Opening manoeuvre and Closing manoeuvre. **Important** – If this function is enabled, the positions must be memorised anew.

• opening initial deceleration position (0x32)

This function is expressed in degrees. This enables programming the precise position at which the pole starts accelerating during an opening manoeuvre. To save the position, press "**OK**".

• opening deceleration (0x24)

This function is expressed in degrees. During the opening manoeuvre this enables programming of the precise position at which the pole should start decelerating before reaching the limit switch. To save the position, press "**OK**". **Important** – The deceleration point also depends on the speed of the manoeuvre and pole balancing.

• partial open 1 (0x1b)

This function is expressed in degrees. It enables you to program the position at which the pole stops moving (partial opening), during the opening manoeuvre. To save the position, press "**OK**".

• closing initial deceleration position (0x33)
This function is expressed in degrees. This enables programming the precise position at which the pole starts accelerating during a closing manoeuvre. To save the position, press "**OK**".
• closing deceleration (0x25)
This function is expressed in degrees. During the closing manoeuvre this enables programming of the precise position at which the pole should start decelerating before reaching the limit switch. To save the position, press "**OK**". **Important** – The deceleration point also depends on the speed of the manoeuvre and pole balancing.

Braking level (0x35)

This function sets the braking force for opening and closing deceleration separately. It is expressed in levels from 0 (no braking) to 9 (maximum braking). The factory setting depends on the version of the barrier. To set the braking level, select the manoeuvre (1 = opening, 2 = closing) with the < and > keys; then set the level with the ∧ and ∨ keys. To save the level, press "**OK**".

Important – the braking level also depends on the speed of the manoeuvre and the deceleration position.

Slave mode (0x98)

This parameter is ON/OFF; the factory setting is "OFF". If two counterposed barriers are to operate in a synchronised manner, one must act as the Master and the other as the Slave. To configure the system in this way, set the Master motor to "OFF" and the Slave motor to "ON".

Important – If you are using Oview you must modify the "Series" or "Address" parameter of one of the 2 barriers before hooking up the Master-Slave cable. This prevents simultaneous communication of the two control units with the Oview programmer.

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:

❐ **positions** – deletes all memorized positions;
❐ **bluebus devices** – deletes the configuration of the Bluebus devices and the STOP input;
❐ **function values** – deletes all values and function settings provided by 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 the type of barrier in question.

Barrier version (code 0x03)

This read only parameter displays the version of the barrier connected to the control unit. In other words:

3m: M-Bar 3m version
5m: M-Bar 5m version
7m: M-Bar 7m version
9m: L-Bar 9m version

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".

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 20 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.

Disable Pause Time (0x78)

This parameter determines which safety device temporarily disables the Pause Time countdown. YOU can choose between:
- Photocells and Loop (0x40). Default setting
- Loop only (0x41).
- Photocells only (0x42).

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 vehicles or persons 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), its 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 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 the Closure manoeuvre.
Caution! – The function "reclose after photo" is disabled automatically if a Stop command is sent during the manoeuvre in progress, to stop the manoeuvre.
• 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.*

• Start Close after photo (0x7a)

This parameter determines which safety device restarts closing after a trip. You can choose between:
- Photocells and Loop (0x40). Default setting
- Loop only (0x41).
- Photocells only (0x42).

• wait time (0x85)

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.

Always close (0x87)

• active (0x88)

This parameter is ON/OFF; the factory setting is "OFF". This function is useful in the event of a power failure, even brief. 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 power is restored. On the contrary, if the function is not active (OFF), the automation remains stationary when 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-flash time".*

• mode (0x8a)

This parameter is factory set on the mode "always close". The function has 2 operating modes:

standard – *For this mode, refer to the function "active" under the item "always close";*

save automatic closure – *With this mode active, when power is restored after a power failure, two results are possible:* **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.*

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.*

• wait time (0x89)

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.

Force (0x47)

• opening force (0x4a)

This parameter can be set with a value from 10% to 100%; the factory setting depends on the version of barrier. The function adjusts the maximum force the motor can absorb during an opening manoeuvre.

Important – Setting this value too high can damage the gearmotor and overheat the control unit.

• opening deceleration force (0x4d)

This parameter can be set with a value from 10% to 100%; the factory setting depends on the version of barrier. The function enables control of the maximum force absorbed by the motor during the deceleration phase of an Opening manoeuvre. **Important** – Setting this value too high can damage the gearmotor and overheat the control unit.

• closing force (0x4b)

This parameter can be set with a value from 10% to 100%; the factory setting depends on the version of barrier. The function enables control of the force absorbed by the motor during a Closing manoeuvre. **Important** – Setting this value too high can damage the gearmotor and overheat the control unit.

• closing deceleration force (0x4d)

This parameter can be set with a value from 10% to 100%; the factory setting depends on the version of barrier. The function enables control of the maximum force absorbed by the motor during the deceleration phase of a Closing manoeuvre. **Important** – Setting this value too high can damage the gearmotor and overheat the control unit.

• action time (0x37)

This parameters sets the action time when the set level of force is exceeded. It is expressed in multiples of 30ms and can be set from 6 (=180ms) to 32 (=960ms). Increasing this setting increases the action time of the amperometric obstacle detection function.

Sensitivity (0x38)

The sensitivity parameter is linked with the encoder and, together with the force function, is used to limit the obstacle detection time following an impact. The greater the sensitivity, the shorter the time between encoder pulses. The lower the sensitivity, the longer the time between encoder pulses.

• opening sensitivity (0x3a)

This parameter takes values from 0 to 200, and is used during opening manoeuvres; the factory setting depends on the version. **Important** – a too high setting can cause false positives due to the oscillation of the barrier itself.

• opening deceleration sensitivity (0x3d)

This parameter takes values from 0 to 200, and is used during the opening deceleration cycle; the factory setting depends on the version. **Important** – a too high setting can cause false positives due to the oscillation of the barrier itself.

• closing sensitivity (0x3b)

This parameter takes values from 0 to 200, and is used during closing manoeuvres; the factory setting depends on the version. **Important** – a too high setting can cause false positives due to the oscillation of the barrier itself.

• closing deceleration sensitivity (0x3d)

This parameter takes values from 0 to 200, and is used during the closing deceleration cycle; the factory setting depends on the version. **Important** – a too high setting can cause false positives due to the oscillation of the barrier itself.

Exclusion position (0xa4)

This parameter is expressed in seconds and can be set with a value from 0 to 250 seconds; the factory setting is 5 seconds. **Note** – *The value "0" is considered to be 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.

Speed (0x40)

• opening speed (0x42)

This parameter can be set with a value from 15% to 100%; the factory setting depends on the version. The function enables programming of the required motor speed during an Opening manoeuvre. **Important** – This parameter also affects the impact forces.

• opening deceleration speed (0x45)

This parameter can be set with a value from 5% to 100%; the factory setting depends on the version. The function enables programming of the required motor speed during the deceleration phase of an opening manoeuvre. **Important** – This parameter also affects the impact forces.

• closing speed (0x43)
This parameter can be set with a value from 15% to 100%; the factory setting depends on the version. The function enables programming of the required motor speed during a Closing manoeuvre. **Important** – This parameter also affects the impact forces.

• closing deceleration speed (0x46)
This parameter can be set with a value from 5% to 100%; the factory setting depends on the version. The function enables programming of the required motor speed during the deceleration phase of a closing manoeuvre.
Important – This parameter also affects the impact forces.

Start up (0x8f)

• active (0x90)
This parameter is ON/OFF; the factory setting is "OFF". When this function is set to "ON", the motor force and speed function values are incremented by the mode parameter to increase the power of the motor during the start of a manoeuvre. This function is useful in the presence of static friction (for example, snow or ice which obstruct the automation). **Note** – If the function is not active (OFF) the Opening or Closing manoeuvre starts with a gradual acceleration.

• mode (0xb0)
This parameter is set manually. Start-up can operate in 2 modes:
❒ *manual:* the manoeuvre starts with force and speed at maximum for a time given by "start-up time".
❒ *automatic*: the manoeuvre starts with the force and speed at maximum until the control unit determines that 6 encoder pulses have been emitted or an internal timeout has expired.

• start-up time (0x91)
This parameter is expressed in seconds and can be set with a value from 0.1 to 5 seconds; the factory setting is 2 seconds. The function enables programming of the duration of initial motor start-up in manual mode. **Important** – The function is only effective if the "start-up" function is enabled (ON) and the mode is "manual".

Tamper-proof (0xec)
This parameter is ON/OFF; the factory setting is "OFF". When this function is "ON", when the barrier is closed the control unit runs a closing manoeuvre if it detects an attempt to force it open. **Important** – the tamper-proof close operation must complete within a specified time. If this time is exceeded, the control unit aborts the function until the next operation.

Pre-flashing (0x93)

• active (0x94)
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.

• time in opening (0x95)
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.

• time in closing (0x99)
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.

Stand-by (0x8b)

• active (0x8c)
This parameter is ON/OFF; the factory setting is "OFF". When this function is set to "ON", automation power consumption can be reduced.

• mode (0x8e)
The function has 3 operating modes:
❒ *safety devices* – With this mode active, at the end of a manoeuvre and after the stand-by time has expired
❒ *(as set in "wait time"), the control unit switches off the Bluebus photocell transmitters and all leds, except for the Bluebus led, which goes into slow flashing mode. **Note** – When the control unit receives a command, it automatically restores normal operation of the automation, and no longer in energy saving mode.*
❒ *bluebus* – When this mode is active, when a manoeuvre has been completed and the stand-by time has expired, the control unit switches off the Bluebus output (devices) and all leds, except for the Bluebus led which goes into slow flashing mode. **Note** – When the control unit receives a command, it automatically restores normal operation of the automation, and no longer in energy saving mode.
❒ *all* – When this mode is set, at the end of a manoeuvre and when the standby time has elapsed, the control unit switches off the Bluebus output (devices), some of the internal circuits and all leds, with the exception of the Bluebus led, which goes into slow flashing mode. **Note** – When the control unit receives a command, it automatically restores normal operation of the automation, and no longer in energy saving mode. We recommend setting this mode if the barrier is powered by Solemyo.

• wait time (0x8d)
This parameter is expressed in seconds and can be set with a value from 0 to 250 seconds; the factory setting is 60 seconds. The function enables programming of the time which must pass between the end of a manoeuvre and the start of the "standby" function, if the latter is active (ON).

Block automation (0x9a)
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".

Block keys (0x9c)
This parameter is ON/OFF; the factory setting is "OFF". This function disables operation of the keys present on the control unit.

Short inversion value (0x31)
This parameter is expressed in degrees and can be set with a value from 5 to 30 seconds; the factory setting is 15. 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.

Emergency mode (0xa8)
This parameter is ON/OFF; the factory setting is "OFF". This mode requires the backup batteries to have been installed. With this function active, the control unit runs an opening manoeuvre without considering the safety devices when mains power fails, and remains in this state until it is restored. Once mains power is restored, the barrier resumes normal operation.

Advanced parameters

This item covers the commands available and associable with **inputs 1 - 2 – 3 and the Loop Detector** on the control unit of an automation. The commands available for the inputs are given in **Table 1**; the command categories and modes are given in **Table 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** *(the common of this input is 24V)*

This programs Input 1, by assigning a command from among those listed in Table 1. Input 1 is factory set to "step-by-step", "step-by-step" category and "open-stop-close-open" mode.

• **Input 2** *(the common of this input is 12V)*

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** *(the common of this input is 12V)*

This programs Input 1, by assigning a command from among those listed in Table 1. Input 3 is factory set to "close", "closing" category and "close-stop-close" mode.

TABLE 1: INPUT CONFIGURATION

COMMAND	COMMAND CATEGORY	DESCRIPTION
No command		Does not perform any command.
Step-by-step	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, mode "step-by-step" and 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. Input configured as normally open.
Partial open 1	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.
Open	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". 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.
Close	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". 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.
Stop	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.
High priority step-by-step	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.
Open and block	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.
Close and block	**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.
Block		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.
Release		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.

Timed Courtesy light		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.
Courtesy light: on/off		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.
Apartment block	**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.
Stop	**Stop in open/close** Program the desired mode from those listed in Table 1-L ("command configuration" > "Stop in open/close" > 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.
Apartment block open	**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.
Photo **Safety function**	**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.
Photo 2 **Safety function**	**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.
Photo 3 **Safety function**	**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.
Release and open		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.
Release and close		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.
Automatic opening active		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.
Deactivate automatic opening		This command enables deactivation of the "automatic opening active" mode described above. Input configured as normally open.
Activate Loop Detector		This command activates/deactivates the Loop Detectors. Note – the factory setting of this function is "active". For example, if this function is active, if a car is over the loop detector, the control unit activates the application to execute an Opening manoeuvre. Input configured as normally open.
Deactivate Loop Detector		This command deactivates the "activate loop detector" mode described above. Input configured as normally open.
Emergency stop		When this command is sent, the control unit immediately stops the manoeuvre in progress, and ignores all movement commands. Input configured as normally closed.

Step-by-step Master		When this command is sent to the master control unit, the Master/Slave barriers open or close, depending on the previous command. Input configured as normally open.
Open master		When this command is sent to the master control unit, the Master/Slave barriers open. Input configured as normally open.
Close master		When this command is sent to the master control unit, the Master/Slave barriers close. Input configured as normally open.
Step-by-step slave		When this command is sent to the master control unit, the Slave barrier opens or closes, depending on the previous command. Input configured as normally open.
Open slave		When this command is sent to the master control unit, the Slave barrier opens. Input configured as normally open.
Close slave		When this command is sent to the master control unit, the Slave barrier closes. Input configured as normally open.

Loop Detector (0xfd)

This parameter sets the operation of the loop detectors. The parameters of Loop1 and Loop2 can be programmed independently, except for Power and Calibration. The top right of the Oview screen shows the number of the loop being programmed. To change loop, use the < and > keys.

You can program the following parameters:

• Loop power (0xe6)

This is an ON / OFF parameter (the factory setting is "OFF") used to activate/deactivate the loop detector circuits

• Loop calibration (0xe5)

This parameter is ON/OFF; the factory setting is "OFF". When set to "ON", a calibration procedure starts (i.e. recognition of the connected loop). **Note**: the calibration automatically activates the parameter "Loop power"

• Loop sensitivity (0xe4)

Takes values from 10 to 100. The factory setting is 80. This parameters sets the minimum frequency variation of the metal body required to start a manoeuvre.
Note:
- set a high sensitivity to detect small metal bodies
- set a low sensitivity to detect large metal bodies

• Loop activation (0xe7)

This parameter type is ON / OFF; the factory setting is "ON". Activating the loop means that the barrier will react as programmed when it is tripped. If the function is DEACTIVATED, the status of the loop is available, if one of the outputs is programmed as a loop (1, 2 or 3), with the Oview programmer.

• Loop mode (0xea)

This parameter assigns the operation following activation of the loop. If "Activate loop" is enabled and the loop command is ACTIVE, the barrier will respond as programmed with the Loop mode:
- open only (apartment block open)
- close only
- stop
- photo close (PHOTO with full inversion)

• Loop recalibration time (0xe9)

This can be set from 2 to 20 minutes, the factory setting is 20 minutes (=∞) and represents the maximum time for which the loop is occupied. Once this time has elapsed, a recalibration is automatically started to indicate that the loop is unoccupied. The 20 minute setting (=∞) ignores the time parameter and does not run a recalibration due to the loop being occupied.

• Loop activation mode (0xe8)

This parameter can be set from 1 to 5 (see table below). The factory setting is 1 and represents activation of the command as a function of the behaviour of the loop itself. The relay = loop command signal.

• Loop activation time (0xeb)

Can be set from 0 to 25 seconds. The factory setting is 2. This is the time "t" used by the operating modes described in the Loop activation modes table.

• Loop frequency (0xed)

Indicates the frequency of oscillation of the loop in question, in Hz. It can vary from 0 to 127000Hz. A value lower than 100000Hz indicates that the loop is not connected; the control unit disables it. The best setting is in the range 30000 to 90000 Hz.

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
Industrial mode	This runs the sequence "open in semiautomatic- close in hold-to-run".
Open - stop - close - stop	This executes the above sequence.
Open - Stop - Close - Open	Operating mode set in factory (Input 1 - "step-by-step" command). This executes the above sequence.
Open - Close - Open - Close	This executes the above sequence.
Apartment block 1 step-by-step	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.
Apartment block 2 step-by-step	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.
Step-by-step 2	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).
Hold-to-run	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
Open - stop - close - stop	Operating mode set in factory. This executes the above sequence.
Open - Stop - Close - Open	This executes the above sequence.
Open - Close - Open - Close	This executes the above sequence.
Apartment block 1 step-by-step	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.
Apartment block 2 step-by-step	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.
Hold-to-run	The Partial open 1 or Closing manoeuvre is executed exclusively if the transmitter key is held down (hold-to-run).
Industrial mode	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
Open - Stop - Open	Operating mode set in factory (Input 2 - "open" command). This executes the above sequence.
Apartment block 1	An Opening manoeuvre is executed.
Apartment block 2	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.
Open 2	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).
Hold-to-run Open	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
Close - stop - close	Operating mode set in factory (Input 3 - "close" command). This executes the sequence as described.
Apartment block 1 close	This executes the sequence "close - close".
Apartment block 2 close	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.
Hold-to-run close	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
Stop	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).

stop and brief inversion	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
stop and inversion	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.
stop and brief inversion	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.
Stop	When the control unit receives the command is stop the current Close manoeuvre. Caution! – During execution of the Opening manoeuvre, this command is ignored.
temporary stop	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.
Temporary stop 2 (0x1c)	When the control unit receives the command, it stops the Closing manoeuvre for as long as the command remains active. When the command is no longer active, the control unit resumes the Closing manoeuvre from where it previously stopped it. – 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
stop and inversion	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.
stop and brief inversion	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.
Stop	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.
temporary stop	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 3	
In this category, you can choose one of the modes listed in table 1-I.	

TABLE 1-I: COMMAND CONFIGURATION

MODE	DESCRIPTION
temporary stop	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.
Stop	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
Stop	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.
Stop and brief inversion	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).
Alt and inversion	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.

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
Stop	Operating mode set in factory. When the control unit receives the command, it stops the Closing manoeuvre in progress.
Stop and brief inversion	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).

alt and inversion	Operating mode set in factory. When the control unit receives the command, it stops the Closing manoeuvre in progress and activates a total inversion (Open). Caution! – During execution of the Opening manoeuvre, this command is ignored.

Detect obstacle in opening	
In this command category the user can select one of the operating modes specified in Table 1-N.	

TABLE 1-N: COMMAND CONFIGURATION

MODE	DESCRIPTION
Stop	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.
Stop and brief inversion	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).
alt and inversion	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.

Detect obstacle in closing	
In this command category the user can select one of the operating modes specified in Table 1-O.	

TABLE 1-O: COMMAND CONFIGURATION

MODE	DESCRIPTION
Stop	Operating mode set in factory. When the control unit receives the command, it stops the Closing manoeuvre in progress.
Stop and brief inversion	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).
alt and inversion	Operating mode set in factory. When the control unit receives the command, it stops the Closing manoeuvre in progress and activates a total inversion (Open). Caution! – During execution of the Opening manoeuvre, this command is ignored.

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 for connection of the XBA7 or XBA8 internal flasher.	

TABLE 2: OUTPUT CONFIGURATION

FUNCTION	DESCRIPTION
sca (0x01)	The programmed light indicates the operating status of the control unit. 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.
SCA1 (0x14)	The programmed light indicates the operating status of the control unit. light permanently on = application in maximum Opening or maximum 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.
SCA2 (0x15)	The programmed light indicates the operating status of the control unit. 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.
Gate open (0x02)	The programmed light indicates the operating status of the control unit. light on = application in maximum Opening position; light off = application in other positions.
Gate closed (0x03)	The programmed light indicates the operating status of the control unit. light on = application in maximum Closing position; light off = application in other positions.
Flasher (0x05)	This function enables the flasher to indicate execution of a manoeuvre in progress with flashes at regular intervals (0,5 sec. ON; 0,5 sec. OFF).
Flasher 1 (0x13)	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.
Courtesy light (0x06)	This function turns the indicator on during the manoeuvre for the time set in the "Courtesy light time" parameter. The function can also be activated in "ON/OFF" mode.
Always on (0x16)	This function enables the indicator light to remain constantly lit both during a manoeuvre and when the pole is stationary.
Red traffic light (0x0d)	This function indicates the activity of the application during a closing manoeuvre: slow flashing = closing in progress; light permanently on = application in maximum Closing position; light off = application in other positions.

Green traffic light (0x0e)	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.
One way traffic light (0x1a)	This function requires the XBA8 flasher, and operates as follows: - With the pole up, green - In all other cases, red. Note: if pre-flashing is active, the start of the manoeuvre is preceded by the red signal flashing.
Two-way alternating traffic light (0x1a)	This function requires the XBA8 flasher, and operates as follows: When an open command is sent from inside, the inwards green light and outwards red light are activated, thus giving priority to the person inside. When an open command is sent from outside, the inwards green light and the outwards red light are activated, thus giving priority to the person outside. When the door is closed or closing, the signal is red in both directions. For the system to operate in this mode, the commands must be sent to the control unit as follows: - Inside commands: Input 2 or Loop1 configured as open - Outside commands: Input 3 or Loop2 configured as open
One way traffic light for pedestrians (0x21)	This function requires the XBA8 flasher, and operates as follows: - pole closed: green inside, red outside - pole open: red inside, green outside - pole in other positions: red inside and outside
Radio channel 1 (0x0f)	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.
Radio channel 2 (0x10)	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.
Radio channel 3 (0x11)	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.
Radio channel 4 (0x12)	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.

Output 1 (flash)

In this output the user can select one of the functions specified in Table 3.

TABLE 3: OUTPUT CONFIGURATION

FUNCTION	DESCRIPTION
Not specified	The output is never activated
sca (= gate/barrier open)	The programmed light indicates the operating status of the control unit.
	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.
	Output active 24 V DC / max 10 W
Sca1	The programmed light indicates the operating status of the control unit.
	light permanently on = application in maximum Opening or maximum 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.
	Output active 24 V DC / max 10 W
Sca2	The programmed light indicates the operating status of the control unit.
	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.
	Output active 24 V DC / max 10 W
gate open	The programmed light indicates the operating status of the control unit.
	light on = application in maximum Opening position;
	light off = application in other positions.
	Output active 24 V DC / max 10 W
gate closed	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 V DC / max 10 W
maintenance indicator light	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%.

flashing light	This function enables the flasher 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
Flasher 1	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
24V flasher	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
courtesy light	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 V DC / max 10 W
Always on	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
electric lock 1	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 V DC / max 10 W
electric block 1	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 V DC / max 10 W
suction cup 1	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 24 V DC / max 10 W
red traffic light	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 24 V DC / max 10 W
green traffic light	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 24 V DC / max 10 W
radio channel no.1	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. 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.
	Output active 24 V DC / max 10 W
radio channel no.2	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. 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.
	Output active 24 V DC / max 10 W
radio channel no.3	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. 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.
	Output active 24 V DC / max 10 W
radio channel no.4	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. 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.
	Output active 24 V DC / max 10 W
Loop1	This output copies the status of the command coming from Loop1, per the current settings.
	Output active 24 V DC / max 10 W
Loop2	This output copies the status of the command coming from Loop2, per the current settings.
	Output active 24 V DC / max 10 W
output 2	
This output can be set to one fo the functions described in Table 3, including those described below	
Buzzer/Siren (0x1d)	This function activates the output (siren) when the amperometric force limiter trips twice during a given manoeuvre. The barrier locks and accepts no further commands. The siren sounds for 5 minutes; it then deactivates but the barrier stays locked.
	To release the barrier press the control unit's STOP button, or actuate the device connected to the control unit's STOP input.
	Output active 24 V DC / max 10W

output 3	
This output can be set to one fo the functions described in Table 3, including those described below	
Fan (0x20)	This function activates the output (fan) when the barrier is moving, and for 1 minute after the end of a manoeuvre. Output active 24 V DC / max 10W

Electric lock time
This parameter (in seconds) can be set to 0.1 - 10 s; the factory setting is 2 s. This function sets the time for which the output programmed as the electric lock remains active.

Suction cup time
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.

Courtesy light time
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.

DIAGNOSTICS

Inputs / Outputs
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.

Automation position
Indicates the physical position of the encoder in encoder pulses relative to the closed position.

TABLE 4: Input/output DIAGNOSTICS

FUNCTION	DESCRIPTION
• Diagnosis 1 - IN	
RADIO INPUTS (On / Off):	
Channel 1	Indicates when radio receiver channel 1 is active.
Channel 2	Indicates when radio receiver channel 2 is active.
Channel 3	Indicates when radio receiver channel 3 is active.
Channel 4	Indicates when radio receiver channel 4 is active.
SERIAL RADIO INPUTS	Indicates when the control unit receives a serial command via BusT4 from a radio receiver; these commands range from minimum 1 to maximum 15.
Loop1	Indicates when the loop is activated due to occupation by a metal body.
Loop2	Indicates when the loop is activated due to occupation by a metal body.
BOARD KEYS:	
no. 1	Indicates when key 1 is pressed (= OPEN) on the control unit.
no. 2	Indicates when key 2 is pressed (= STOP) on the control unit.
no. 3	Indicates when key 3 is pressed (= CLOSE) on the control unit.
DIRECTION SELECTION	Indicates the status of the direction selector for a manoeuvre.
INPUT STATUS:	
inp 1	Indicates when input 1 is active.
inp 2	Indicates when input 2 is active.
inp 3	Indicates when input 3 is active.
inp alt	Indicates when the alt input is active.
ALT CONFIGURATION	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.
MOTOR 1 (On / Off):	
Limit switch on opening	Indicates when motor 1 reaches the maximum opening position.
Limit switch on closing	Indicates when motor 1 reaches the maximum closing position.
MANOEUVRE THRESHOLD:	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.
LAST 8 MANOEUVRES	Indicates any malfunctions occurring during normal operation of the application, showing the last 8 manoeuvres completed.
OPEN AUTOMATIC	Indicates if this function is active.
• Diagnosis 1 - OUT	
GENERIC DATA:	
Stand-by	Indicates when the automation is in the standby status.
POWER:	Indicates the type of electrical power used by the automation: mains (120/230 V AC) or backup battery (24 V DC)
MEMORY ERRORS:	
Map M1	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.
Rego	Indicates whether there is an error in the memorised data on the control unit regarding settable parameters.
Functions	Indicates whether there is an error in the memorised data regarding the functions programmable with Oview.

Stop	Indicates whether there is an error in the memorised data regarding the configuration of the alt input.
Bluebus	Indicates whether there is an error in the memorised data regarding the configuration of the devices connected to the bluebus input.
Positions	Indicates whether there is an error in the memorised data regarding positions.
ENCODER STATUS:	
Abs M1	Indicates whether there is a reading error or operating malfunction on the absolute encoder of motor 1.
OUTPUTS:	
Out 1	Indicates when output 1 is active. Caution – 12/24 V DC voltage present.
Out M1	Indicates when motor 1 is in operation.
ALARMS:	
Out 1 overload	Indicates an electrical overload or short circuit on output 1 or on the courtesy light of the control unit.
Out 2 overload	Indicates an electrical overload or shortcircuit at output 2.
M1 low overtravel	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.
M1 high overtravel	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
• Diagnostics 2	
MISCELLANEOUS PARAMETERS:	
Courtesy light	Indicates the timer for shutoff of the courtesy light.
Pause time	Indicates the timer for counting the pause time between one manoeuvre and the next.
Service voltage	Indicates the voltage supplied to external devices.
Bus medium current	Indicates the current absorption of the devices connected to the bluebus output, calculated as a percentage.
MOTOR 1:	
Torque	Indicates the torque generated by motor 1 during the manoeuvre, calculated as a percentage.
Speed	Indicates the speed of motor 1 during the manoeuvre, calculated as a percentage.
Voltage	Indicates the mean voltage to be supplied to motor 1 during the manoeuvre, calculated as a percentage.
Position	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 ot the Bluebus output. These parameters are described in Table 6.

TABLE 6: DIAGNOSTICS of bluebus devices

PARAMETER	DESCRIPTION
• Bluebus	
PHOTOCELLS	
PHOTO	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
PHOTO II	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
PHOTO 1	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
PHOTO 1 II	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
PHOTO 2	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
PHOTO 2 II	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
PHOTO 3	Indicates whether the photocell is present, the relative operating status and the correct memorisation in the control unit.
FT A	Indicates whether the sensitive edge is present, the relative operating status and the correct memorisation in the control unit.
FT B	Indicates whether the sensitive edge is present, the relative operating status and the correct memorisation in the control unit.
FT C	Indicates whether the sensitive edge is present, the relative operating status and the correct memorisation in the control unit.
OPEN PHOTO	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
OPEN PHOTO II	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
COMMANDS:	
CMD 1	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
CMD 2	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
CMD 3	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.

CMD 4	Indicates whether the control photocell is present, the relative operating status and the correct memorisation in the control unit.
CMD 5 (SEM1)	Indicates whether the "traffic light 1" control device and whether it is memorised correctly in the control unit.
CMD 6 (SEM2)	Indicates whether the "traffic light 2" control device and whether it is memorised correctly in the control unit.
OTHER:	
GATE	Indicates the operating status of the application.
BLOCK AUTOMATION	Indicates when the automation is blocked following a "Block" command.
MEMORY	Indicates a problem regarding the data related to bluebus devices, memorised in the control unit.
BUS	Indicates whether there is a short circuit on the bluebus output.
STAND-BY	Indicates when the control unit is in standby status.
OTHER DEVICES:	
COURTESY LIGHT	Indicates whether the control device is present, the relative operating status and whether it is memorised correctly in the control unit.
SUCTION CUP	Indicates whether the control device is present, the relative operating status and whether it is memorised correctly in the control unit.
LOCK	Indicates whether the control device is present, the relative operating status and whether it is memorised correctly in the control unit.
TRAFFIC LIGHTS:	
TRAFFIC LIGHT 1	Indicates the operating status of the device.
TRAFFIC LIGHT 2	Indicates the operating status of the device.

Visual diagnostics (0xd5)

With this function active, the programming leds (L1 - L8) no longer display the status of the programming function, but rather display the following statuses:
L1: out1 active
L2: out2 active
L3: out3 active
L4: BusT4 response
L5: Loop1 active
L6: Loop2 active
L7: motor active
L8: brake active
The visual diagnostics function is not saved to memory, so the leds display the programming functions whenever the unit is switched on.

MAINTENANCE

manual alarm threshold

A value from 0 to 16777215 (manoeuvres) can be assigned to this parameter; the factory setting is approx. 200000 (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

This function enables the firmware of a control unit to be updated with another compatible version, without the obligation to change the board.
To update, proceed as follows:

01. Download the firmware update file (the software update is available from www.nice-service.com);
02. In "Advanced Functions" select "Update firmware";
03. Now select "Select file" and then select the update file previously downloaded. The data related to the software of the device to be updated are displayed on the left of the window, while the data related to the update software and compatible hardware versions are displayed on the right;
04. 04. If the file is compatible, the text "Update firmware" appears on the button, and when this is clicked, the update procedure is started. At the end of the procedure, if the message "Update completed successfully" is displayed, this means that the procedure has bee completed. Otherwise, the message "Retry" appears on the button; in this case press the button again to repeat the update process.

If the update process is not completed, the user can retry a number of times, or return to the window "Device List", selecting "Back" and then decide on how to proceed. In this window, the device previously selected will no longer be visible; to display the latter select the down arrow on the right of the window and select the function "Devices in boot phase". This enables a search for devices ready for the firmware update phase.
At this point the user can retry the update process, repeating the procedure described above.
If the update is still not completed successfully, contact the Nice Assistance Service.

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.