Nice

Roll-Control

Roll and lamellas control

Nice

1 WARNINGS AND GENERAL PRECAUTIONS

- **CAUTION! – This manual contains important instructions and warnings for personal safety.** Carefully read all parts of this manual. If in doubt, suspend installation immediately and contact the Nice Technical Assistance.
- **CAUTION! – Important instructions: keep this manual in a safe place to enable future product maintenance and disposal procedures.**
- **CAUTION! – All installation and connection operations must be performed exclusively by suitably qualified and skilled personnel with the unit disconnected from the mains power supply.**
- **CAUTION! – Any use other than that specified herein or in environmental conditions other than those stated in this manual is to be considered improper and is strictly forbidden!**
- The product's packaging materials must be disposed of in full compliance with local regulations.
- Never apply modifications to any part of the device. Operations other than those specified may only cause malfunctions. The manufacturer declines all liability for damage caused by makeshift modifications to the product.
- Never place the device near to sources of heat and never expose to naked flames. These actions may damage the product and cause malfunctions.
- This product is not intended for use by people (including children) with reduced physical, sensory or mental capabilities or who lack experience and knowledge, unless they have been given supervision or instruction concerning the use of the product by a person responsible for their safety.
- Make sure that children do not play with the product.
- The device is designed to operate in electrical home installation. Faulty connection or use may result in fire or electric shock.
- Even when the device is turned off, voltage may be present at its terminals. Any maintenance introducing changes into the configuration of connections or the load must be always performed with disabled fuse.
- It is not recommended to operate all of the roller blinds simultaneously. For safety reasons, at least one roller blind should be controlled independently, providing safe escape route in case of emergency.

2 PRODUCT DESCRIPTION

Roll-Control is a device designed to control roller blinds, awnings, venetian blinds, gates and other single phase, AC powered devices.

Roll-Control allows precise positioning of roller blinds or venetian blind lamellas. The device is equipped with power and energy monitoring. It allows to control connected devices either via the Z-Wave™ network or via a switch connected directly to it.

Main features of Roll-Control:

- Compatible with any Z-Wave™ or Z-Wave Plus™ Controller,
- Supports Z-Wave network Security Modes: S0 with AES-128 encryption and S2 Authenticated with PRNG-based encryption,
- To be installed with roller blind motors with electronic or mechanical limit switches,
- Advanced microprocessor control,
- Active power and energy metering functionality,
- Works with various types of switches – momentary, toggle and dedicated roller blind switches,
- To be installed in wall switch boxes.

Roll-Control is a fully compatible Z-Wave Plus™ device.

This device may be used with all devices certified with the Z-Wave Plus certificate and should be compatible with such devices produced by other manufacturers. All non-battery operated devices within the network will act as repeaters to increase reliability of the network. The device is a Security Enabled Z-Wave Plus product and a Security Enabled Z-Wave Controller must be used in order to fully utilize the product. The device supports Z-Wave network Security Modes: S0 with AES-128 encryption and S2 Authenticated with PRNG-based encryption.

3 INSTALLATION

⚠ ⚠

- **The product is subject to hazardous electric voltages**
- **The installation of the Roll-Control must be performed exclusively by technically qualified personnel, in observance of current legislation and standards, and according to these instructions. All connections must be made with the system disconnected from the power supply.**
- **Never perforate the Roll-Control container!**
- **The power supply line must be protected by suitable magneto-thermal (rated up to 16A) and residual-current circuit breakers.**
- **Connecting the Roll-Control in a manner inconsistent with this manual may cause risk to health, life or material damage.**
- **Connect only in accordance with one of the diagrams,**
- **Do not connect DC powered motors, the device is dedicated to operate AC powered electric motors,**
- **Do not connect the device to loads exceeding recommended values,**
- **The device should be installed in a wall switch box compliant with a relevant national safety standards and with depth no less than 60mm,**
- **Electrical switches used in installation should be compliant with the relevant safety standards,**
- **Length of wires used to connect the control switch should not exceed 20m,**
- **Connect roller blind motors with electronic or mechanical limit switches only.**

3.1 - Electrical connections

⚠ ⚠ **Carefully follow all the connection instructions. If you have any doubts do not make experiments but consult the relevant technical specifications which are also available on the web site: www.niceforyou.com. Connecting the Roll-Control in a manner inconsistent with this manual may cause risk to health, life or material damage.**

- Connect only in accordance with one of the diagrams,
- Do not connect DC powered motors, the device is dedicated to operate AC powered electric motors,
- Do not connect the device to loads exceeding recommended values,
- The device should be installed in a wall switch box compliant with a relevant national safety standards and with depth no less than 60mm,
- Electrical switches used in installation should be compliant with the relevant safety standards,
- Length of wires used to connect the control switch should not exceed 20m,
- Connect roller blind motors with electronic or mechanical limit switches only.

3.2 - Notes for the diagrams:

S1 - terminal for 1st switch (used to add/remove the device)
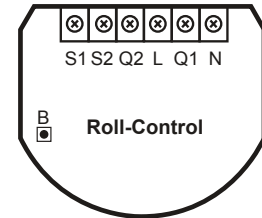S2 - terminal for 2nd switch
Q2 - 2nd output terminal for shutter motor
Q1 - 1st output terminal for shutter motor
L - terminal for live lead
N - terminal for neutral lead
B - service button (used to add/remove the device and navigate the menu)

3.3 - Tips for arranging the antenna:

- Locate the antenna as far from metal elements as possible (connecting wires, bracket rings, etc.) in order to prevent interferences,
- Metal surfaces in the direct vicinity of the antenna (e.g. flush mounted metal boxes, metal door frames) may impair signal reception!
- Do not cut or shorten the antenna - its length is perfectly matched to the band in which the system operates.
- Make sure no part of the antenna sticks out of the wall switch box.

3.4 - Installation with standard blinds:

1. Switch off the mains voltage (disable the fuse).
2. Open the wall switch box.
3. Connect with the following the diagram.
4. Verify if the device is connected correctly.
5. Arrange the device and its antenna in a wall switch box.
6. Close the wall switch box .
7. Switch on the mains voltage.
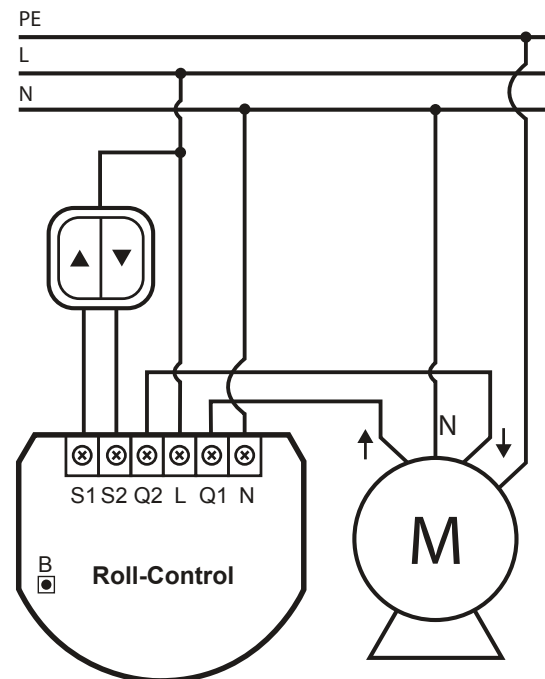
## 3.5 - Installation with blinds with built-in driver:

1. Switch off the mains voltage (disable the fuse).
2. Open the wall switch box.
3. Connect with the following the diagram.
4. Verify if the device is connected correctly.
5. Arrange the device and its antenna in a wall switch box.
6. Close the wall switch box .
7. Switch on the mains voltage.
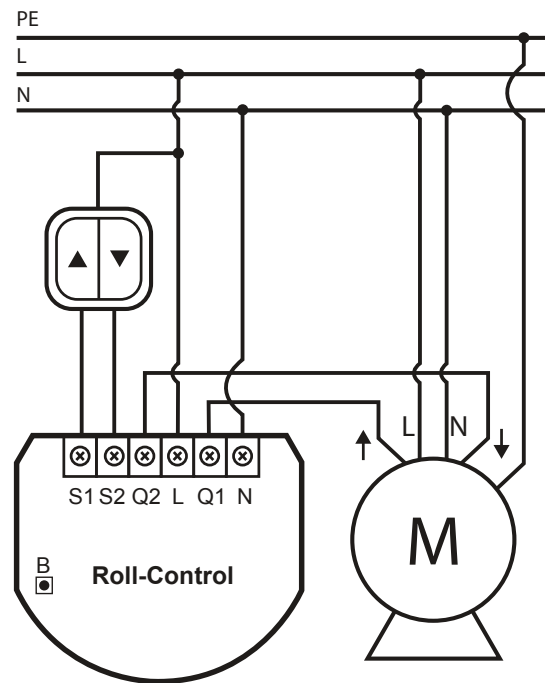
3.6 - Installation with gate motors:

- Installation of the gate driver may be performed only by certified professionals.
- The motor must be equipped with the appropriate limit switches.
- It is recommended to connect a NC (normally closed) contact of an IR barrier to S2 terminal. Opening the contact will stop the gate.
- In addition, it is recommended to connect an emergency stop button to the motors neutral (N) wire. In emergency, pushing the emergency stop button will cut the power and stop the gate.

1. Switch off the mains voltage (disable the fuse).
2. Open the installation box.
3. Connect with the following the diagram:
4. Verify if the device is connected correctly.
5. Arrange the device and its antenna in the installation box.
6. Close the installation box.
7. Switch on the mains voltage.
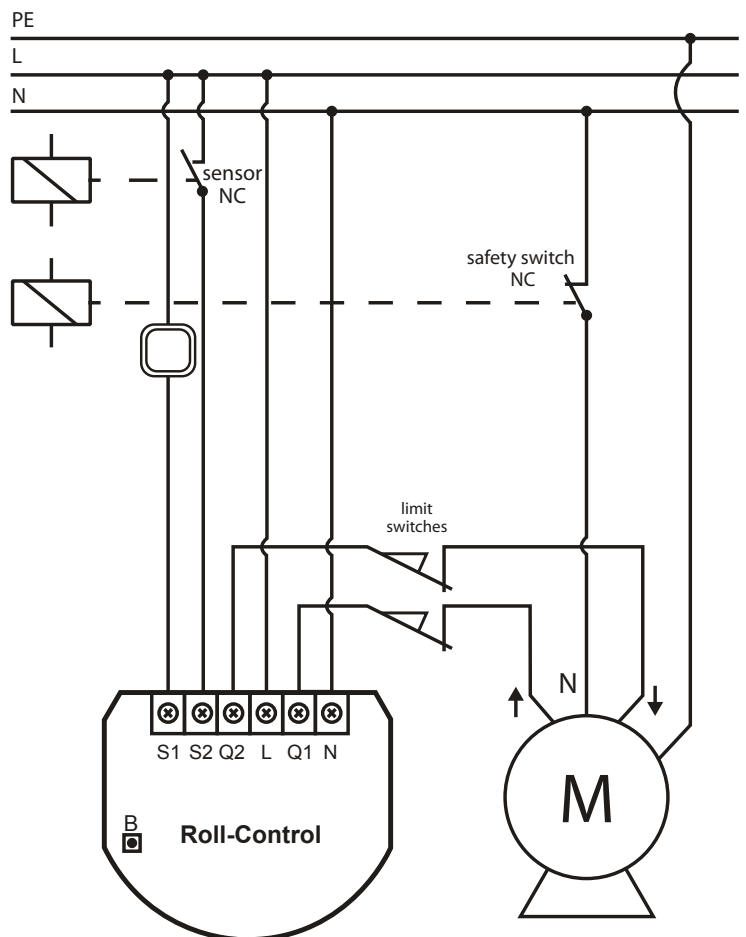
4 ADDING THE DEVICE

Adding (Inclusion) - Z-Wave device learning mode, allowing to add the device to existing Z-Wave network.

4.1 - Using the manual method
To add the device to the Z-Wave network manually:
1. Power the device.
2. Identify the S1 switch.
3. Set the main controller in (Security/non-Security Mode) add mode (see the controller's manual).
4. Quickly, triple click the S1 switch.
5. If you are adding in Security S2 Authenticated, scan the DSK QR code or input the underlined 5-digit PIN code (label on the side of the box and on the device).
6. Wait for the adding process to end.
7. Successful adding will be confirmed by the Z-Wave controller's message.

4.2 - Using the SmartStart method
To add the device to the Z-Wave network using SmartStart:
1. Set the main controller in Security S2 Authenticated add mode (see the controller's manual).
2. Scan the DSK QR code or input the underlined 5-digit PIN code (label on the side of the box and on the device).
3. Power the device (turn on the mains voltage).
4. LED will start blinking yellow, wait for the adding process to end.
5. Successful adding will be confirmed by the Z-Wave controller's message.

Note. In case of problems with adding using the S1 switch, use B-button instead (located on the housing).

Note. SmartStart enabled products can be added to SmartStart enabled Z-Wave controller by scanning the Z-Wave QR Code present on the product. SmartStart product will be added automatically within 10 minutes of being switched on in the network range.

5 REMOVING THE DEVICE

Removing (Exclusion) - Z-Wave device learning mode, allowing to remove the device from existing Z-Wave network.
Removing the device restores all the default parameters of the device, but does not reset power metering data.

To remove the device from the Z-Wave network:
1. Make sure the device is powered.
2. Identify the S1 switch.
3. Set the main controller in remove mode (see the controller's manual).
4. Quickly, triple click the S1 switch.
5. Wait for the removing process to end.
6. Successful removing will be confirmed by the Z-Wave controller's message.

Note. In case of problems with removing using the S1 switch, use B-button instead (located on the housing).

Note. If parameter 40 enables scenes for triple S1 click, disable it or use B-button instead to remove the device.

Note. If parameter 24 is set to 1, use S2 switch instead to remove the device.

6 POSITIONING CALIBRATION

- Calibration is a process during which a device learns the position of the limit switches and a motor characteristic.
- Calibration is mandatory in order for the device to correctly recognize a roller blind position.
- The procedure consists of an automatic, full movement between the limit switches (up, down, and up again).

Table A1 - Buttons description	
Symbol	**Description**
▲	switch connected to the S1 terminal
▼	switch connected to the S2 terminal

6.1 - Standard roller blind positioning - Calibration using connected momentary switch

1. Make sure:
   - the device is supplied,
   - momentary switch is connected to S1 and S2 terminals,
   - the device added to the Z-Wave network,
   - parameter 151 is set to 1 or 2.
2. Press and hold ▲ or ▼ switch for at least 3 seconds
3. Press and hold the same switch again for at least 3 seconds.
4. Press and hold the same switch again for at least 3 seconds.
5. The device will perform the calibration process, completing full cycle – up, down and up again.
6. Test whether the positioning works correctly.

6.2 - Standard roller blind positioning - Calibration using the B-button

1. Make sure:
   - the device is supplied,
   - the device added to the Z-Wave network,
   - parameter 151 is set to 1 or 2.
2. Press and hold the B-button.
3. Wait for the LED to glow white.
4. Quickly release and click the B-button again.
5. The device will perform the calibration process, completing full cycle – up, down and up again
6. Test whether the positioning works correctly.

6.3 - Calibration using parameter

1. Make sure:
   - the device is supplied,
   - the device added to the Z-Wave network,
   - parameter 151 is set to 1 or 2.
2. Set the parameter 150 value to 2
3. The device will perform the calibration process, completing full cycle – up, down and up again
4. The parameter 150 value will be set to 1 after calibration finishes.
5. Test whether the positioning works correctly.

6.4 - Slats positioning in venetian blinds mode - Calibration using connected momentary switch

1. Make sure:
   - the device is supplied,
   - momentary switch is connected to S1 and S2 terminals,
   - the device added to the Z-Wave network,
   - parameter 151 is set to 2,
   - blinds are calibrated.
2. By default, time of transition between extreme positions is set to 150 (1.5 seconds) in parameter 152.
3. Turn slats between extreme positions by holding ▲ or ▼ switch:
   - If after full cycle a blind starts moving up or down - decrease value of parameter 152,
   - If after full cycle the slats does not reach end positions - increase value of parameter 152,
4. Repeat previous step until satisfactory positioning is achieved.
5. Test whether the positioning works correctly. Correctly configured slats should not force the blinds to move up or down.

6.5 - Slats positioning in venetian blinds mode - Roller blind with built-in driver positioning

1. Make sure:
   - the device is supplied,
   - momentary switch is connected to S1 and S2 terminals,
   - the device added to the Z-Wave network,
   - parameter 151 is set to 5 or 6.
2. By default, time of transition between extreme positions is set to 600 (6 seconds) in parameters 155 and 156.
3. Move roller blinds between extreme positions by clicking ▲ or ▼ switch:
   - If roller blind stops before reaching top - increase value of parameter 155,
   - If roller blind does not stop after reaching top - decrease value of parameter 155,
   - If roller blind stops before reaching bottom - increase value of parameter 156,
   - If roller blind does not stop after reaching bottom - decrease value of parameter 156,
4. Repeat previous step until satisfactory positioning is achieved.
5. Test whether the positioning works correctly.

7   OPERATING ROLLER BLINDS

The device allows for connecting switch to the S1 and S2 terminals. These may be momentary (recommended) or toggle switches. Switch buttons are responsible for managing the blind's movement.

Table A2 - Switch types	
Type	**Behavior**
Momentary switch	After releasing the switch a spring automatically pushes back and disconnects the switch)
Toggle Switch	Operates as a two-position switch, it has no spring that would set one position of the switch.

7.1 - Using momentary switches:

Click ▲ switch – initiate up movement.

Click ▼ switch – initiate down movement.

If the blind is moving, clicking any button, will stop the movement.

7.2 - Operating slats of venetian blinds

When operating venetian blinds it is possible to manage angle of the slats.

Hold ▲ switch – initiate slats rotation up.

Hold ▼ switch – initiate slats rotation down.

7.3 - Using toggle switches:

Change ▲ switch state – initiate up movement.

Change ▼ switch state – initiate down movement.

Choosing a middle position stops the blinds.

8   OPERATING GATE MOTORS

The device allows to operate gate motors.

- Gate motor should be connected to Q1 and Q2 terminals according to installation diagram.
- When operating gates a momentary switch may be connected to S1 terminal.
- It is recommended to connect an IR barrier, an emergency stop button or any alarm mechanism to S2 terminal. Opening a contact in a device connected to S2 terminal will always result in stopping a motor in current position.

Using momentary switch:

Click S1 switch – move gate in sequence:

      OPEN -> STOP -> CLOSE -> STOP -> OPEN

Open S2 contact – stop movement

Note. After releasing the switch a spring automatically pushes back and disconnects the switch).

Automatic closing:

- After full opening – the gate will automatically start closing after time specified in parameter 152,
- After opening S2 contacts – the gate will automatically start closing after time specified in parameter 154.

9   MENU

Menu allows to perform Z-Wave network actions. In order to use the menu:

1. Switch off the mains voltage (disable the fuse).
2. Remove the device from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the LED to indicate the desired menu position with colour:
   - **WHITE** - start calibration
   - **GREEN** - reset energy consumption memory
   - **VIOLET** - start range test
   - **YELLOW** - reset the device
6. Quickly release and click the B-button again.

10 RESETTING TO FACTORY DEFAULTS

Reset procedure allows to restore the device back to its factory settings, which means all information about the Z-Wave controller and user configuration will be deleted.

Note. Resetting the device is not the recommended way of removing the device from the Z-Wave network. Use reset procedure only if the primary controller is missing or inoperable. Certain device removal can be achieved by the procedure of removing described in the "Adding the device" section.

Resetting the device to factory defaults:
1. Switch off the mains voltage (disable the fuse).
2. Remove the device from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the LED indicator to glow yellow.
6. Quickly release and click the B-button again.
7. After few seconds the device will be restarted, which is signalled with the red LED indicator colour.

11 POWER AND ENERGY CONSUMPTION

The device allows for the active power and energy consumption monitoring. Data is sent to the main Z-Wave controller.

Measuring is carried out by the most advanced micro-controller technology, assuring maximum accuracy and precision (+/- 1% for loads 10W-1000W).

Electric active power - power that energy receiver is changing into a work and heat. The unit of active power is Watt [W].

Electric energy - energy consumed by a device through a time period. Consumers of electricity in households are billed by suppliers on the basis of active power used in given unit of time. Most commonly measured in kilowatt-hour [kWh]. One kilowatt-hour is equal to one kilowatt of power consumed over period of one hour,
1kWh = 1000Wh.

Caution. The device stores periodically (every hour) the consumption data in the device memory. Disconnecting the module from the power supply will not erase stored energy consumption data.

Note. Power measurement can contain mains voltage fluctuations within +/- 10%.

Resetting consumption memory:
The device allows to erase stored consumption data in three ways:

a) Using functionality of a Z-Wave controller (see the controller's manual).

b) Manually clearing the data using the following procedure:
1. Switch off the mains voltage (disable the fuse).
2. Remove the device from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the visual LED indicator to glow green.
6. Quickly release and click the B-button again.
7. Energy consumption memory will be erased.

c) By resetting the device (see the "Operating roller blinds" section).

12 ASSOCIATIONS

Association (linking devices) - direct control of other devices within the Z-Wave system network e.g. Dimmer, Relay Switch, Roller Shutter or scene (may be controlled only through a Z-Wave controller).

The device provides the association of 3 groups:
1st association group – "Lifeline" reports the device status and allows for assigning single device only (main controller by default).
2nd association group – "Roller Shutter" is assigned to shutter position control – UP/DOWN (uses Switch Multilevel command class).
3rd association group – "Slats" is assigned to slats position control – UP/DOWN (uses Switch Multilevel command class).

The device in 2nd and 3rd group allows to control 5 regular or multichannel devices per an association group, with the exception of "Lifeline" that is reserved solely for the controller and hence only 1 node can be assigned.

Table A3 - Association groups mapping		
Root	**Endpoint**	**Association Group in Endpoint**
Association Group 2	Endpoint 1	Association Group 2
Association Group 3	Endpoint 2	Association Group 2

Table A4 - Switch Multilevel commands sent to association groups for parameter 151 equal to 1, 5 or 6				
Parameter 20	**Endpoint**	**Click**	**Hold**	**Release**
0	S1 or S2	2nd group: Start/Stop Level Change	3rd group: Start Level Change	3rd group: Stop Level Change
1	S1 or S2	2nd group: Start/Stop Level Change	–	–
2	S1	2nd group: Start/Stop Level Change	3rd group: Start Level Change	3rd group: Start Level Change

Table A5 - Switch Multilevel commands sent to association groups for parameter 151 equal to 2				
Parameter 20	**Endpoint**	**Click**	**Hold**	**Release**
0	S1 or S2	2nd group: Start/Stop Level Change	–	3rd group: Stop Level Change
1	S1 or S2	2nd group: Start/Stop Level Change	–	–
2	S1	2nd group: Start/Stop Level Change	–	3rd group: Start Level Change

Table A6 - Switch Multilevel commands sent to association groups for parameter 151 equal to 3 or 4			
Switch	**Click**	**Hold**	**Release**
S1	2nd group: Start/Stop Level Change	3rd group: Start Level Change	3rd group: Stop Level Change

13 Z-WAVE RANGE TEST

⚠ The device has a built in Z-Wave network main controller's **range tester**.

To make Z-Wave range test possible, the device must be added to the Z-Wave controller. Testing may stress the network, so it is recommended to perform the test only in special cases.

Note. Communication mode of the device may switch between direct and one using routing, especially if the device is on the limit of the direct range.

Testing Z-Wave range

Follow the below instructions to test the main controller's range:

1. Switch off the mains voltage (disable the fuse).
2. Remove the device from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the visual LED indicator to glow violet.
6. Quickly release and click the B-button again.
7. Visual indicator will indicate the Z-Wave network's range (range signalling modes described below).
8. To exit Z-Wave range test, click the B-button.

Z-Wave range tester signalling modes:

Visual indicator pulsing green - the device attempts to establish a direct communication with the main controller. If a direct communication attempt fails, the device will try to establish a routed communication, through other modules, which will be signalled by visual indicator pulsing yellow.

Visual indicator glowing green - the device communicates with the main controller directly.

Visual indicator pulsing yellow - the device tries to establish a routed communication with the main controller through other modules (repeaters).

Visual indicator glowing yellow - the device communicates with the main controller through the other modules. After 2 seconds the device will retry to establish a direct communication with the main controller, which will be signalled with visual indicator pulsing green.

Visual indicator pulsing violet - the device does communicate at the maximum distance of the Z-Wave network. If connection proves successful it will be confirmed with a yellow glow. It's not recommended to use the device at the range limit.

Visual indicator glowing red - the device is not able to connect to the main controller directly or through another Z-Wave network device (repeater).

14 ACTIVATING SCENES

The device can activate scenes in the Z-Wave controller by sending scene ID and attribute of a specific action using Central Scene Command Class.

By default scenes are not activated, set parameters 40 and 41 to enable scene activation for selected actions.

Table A7 - Activating scenes			
Switch	**Action**	**Scene ID**	**Attribute**
Switch connected to S1 terminal	Switch clicked once	1	Key Pressed 1 time
	Switch clicked twice	1	Key Pressed 2 times
	Switch clicked thrice	1	Key Pressed 3 times
	Switch held*	1	Key Held Down
	Switch released*	1	Key Released
Switch connected to S2 terminal	Switch clicked once	2	Key Pressed 1 time
	Switch clicked twice	2	Key Pressed 2 times
	Switch clicked thrice	2	Key Pressed 3 times
	Switch held*	2	Key Held Down
	Switch released*	2	Key Released

* Not available for toggle switches.

15 Z-WAVE SPECIFICATION

Endpoint 1:
Generic Device Class: GENERIC_TYPE_SWITCH_MULTILEVEL
Specific Device Class: SPECIFIC_TYPE_CLASS_B_MOTOR_CONTROL
Description: represents switch connected to the S1 terminal.

Endpoint 2:
Generic Device Class: GENERIC_TYPE_SWITCH_MULTILEVEL
Specific Device Class: SPECIFIC_TYPE_CLASS_B_MOTOR_CONTROL
Description: represents switch connected to the S2 terminal.

Switch Multilevel Command Class values refers to:
- 0x00 - fully close
- 0x63 - fully open

Table A8 - Supported Command Classes		
Command class	**Version**	**Secure**
ZWAVEPLUS_INFO [0x5E]	V2	
SWITCH_MULTILEVEL [0x26]	V4	YES
ASSOCIATION [0x85]	V2	YES
MULTI_CHANNEL_ASSOCIATION [0x8E]	V3	YES
ASSOCIATION_GRP_INFO [0x59]	V2	YES

TRANSPORT_SERVICE [0x55]	V2	
VERSION [0x86]	V2	YES
MANUFACTURER_SPECIFIC [0x72]	V2	YES
DEVICE_RESET_LOCALLY [0x5A]	V1	YES
POWERLEVEL [0x73]	V1	YES
SECURITY [0x98]	V1	
SECURITY_2 [0x9F]	V1	
SUPERVISION [0x6C]	V1	
METER [0x32]	V3	YES
CONFIGURATION [0x70]	V1	YES
CRC_16_ENCAP [0x56]	V1	
NOTIFICATION [0x71]	V8	YES
PROTECTION [0x75]	V2	YES
MULTI_CHANNEL [0x60]	V4	YES
CENTRAL_SCENE [0x5B]	V3	YES
FIRMWARE_UPDATE_MD [0x7A]	V4	YES
APPLICATION_STATUS [0x22]	V1	
BASIC [0x20]	V1	YES

Table A9 - Multichannel Command Class		
Endpoint 1		
ZWAVEPLUS_INFO [0x5E]	V2	
SWITCH_MULTILEVEL [0x26]	V4	YES
ASSOCIATION [0x85]	V2	YES
MULTI_CHANNEL_ASSOCIATION [0x8E]	V3	YES
ASSOCIATION_GRP_INFO [0x59]	V2	YES
SECURITY [0x98]	V1	
SECURITY_2 [0x9F]	V1	
SUPERVISION [0x6C]	V1	
METER [0x32]	V3	YES
NOTIFICATION [0x71]	V8	YES
APPLICATION_STATUS [0x22]	V1	
Endpoint 2		
ZWAVEPLUS_INFO [0x5E]	V2	
SWITCH_MULTILEVEL [0x26]	V4	YES
ASSOCIATION [0x85]	V2	YES
MULTI_CHANNEL_ASSOCIATION [0x8E]	V3	YES
ASSOCIATION_GRP_INFO [0x59]	V2	YES
SECURITY [0x98]	V1	
SECURITY_2 [0x9F]	V1	
SUPERVISION [0x6C]	V1	
APPLICATION_STATUS [0x22]	V1	

Notification Command Class

The device uses Notification Command Class to report different events to the controller ("Lifeline" group).

Table A10 - Notification Command Class		
Notification Type	**Event**	**Event Parameters**
Power Management [0x08]	Over-current detected [0x06]	

Table A10 - Notification Command Class		
Notification Type	**Event**	**Event Parameters**
System [0x09]	System Hardware Failure [0x03]	Device overheat [0x01]

Protection CC

Protection Command Class allows to prevent local or remote control of the device.

Table A11 - Protection CC		
Type of protection	**State**	**Description**
Local	0	**Unprotected** - The device is not protected, and may be operated normally via S1 or S2
Local	2	**No operation possible** – S1 and S2 cannot change relay state, any other functionality is available (menu)
RF (remote)	0	**Unprotected** - The device accepts and respond to all RF Commands
RF (remote)	1	**No RF control** – command class Basic and Switch Binary are rejected, every other command class will be handled

Meter Command Class:

Same for Root, Endpoint 1 and Endpoint 2.

Table A12 - Protection CC				
Meter Type	**Scale**	**Rate Type**	**Precision**	**Size**
Electric [0x01]	Electric_kWh [0x00]	Import [0x01]	2	4
Electric [0x01]	Electric_W [0x02]	Import [0x01]	1	2

16 ADVANCED PARAMETERS

Roll-Control allows to customize its operation to user's needs. The settings are available in the NICE interface as simple options that may be chosen by selecting the appropriate box.

Table A13 - Roll-Control - Advanced parameters		
Input/output configuration		
Parameter:	**20. Switch type**	
Description:	This parameter defines as what type the device should treat the switch connected to the S1 and S2 terminals. This parameter is not relevant in gate operating modes (parameter 151 set to 3 or 4). In this case switch always works as a momentary and has to be connected to S1 terminal.	
Available settings:	**0** – momentary switches **1** – toggle switches **2** – single, momentary switch (the switch should be connected to S1 terminal)	
Default setting:	**0**	Parameter size:	**1** [byte]
Parameter:	**24. Inputs orientation**	
Description:	This parameter allows reversing the operation of switches connected to S1 and S2 without changing the wiring.	
Available settings:	**0** - default (S1 - 1st channel, S2 - 2nd channel) **1** - reversed (S1 - 2nd channel, S2 - 1st channel)	
Default setting:	**0**	Parameter size:	**1** [byte]
Parameter:	**25. Outputs orientation**	
Description:	This parameter allows reversing the operation of Q1 and Q2 without changing the wiring (in case of invalid motor connection) to ensure proper operation.	

Available settings:	**0** - default (Q1 - 1st channel, Q2 - 2nd channel)
	1 - reversed (Q1 - 2nd channel, Q2 - 1st channel)

Default setting:	**0**	Parameter size:	**1** [byte]

Parameter:	**30. Alarm configuration - 1st slot**
Description:	This parameter determines to which alarm frames and how the device should react. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave protocol specification.
Available settings:	**1B** [MSB] - Notification Type
	2B - Notification Status
	3B - Event/State Parameters
	4B [LSB] - action:
	0 - no action
	1 - open blinds
	2 - close blinds
Default setting:	**[0x00, 0x00, 0x00, 0x00]**
	(disabled)
Parameter size:	**4** [bytes]

Parameter:	**31. Alarm configuration - 2nd slot (Water)**
Description:	This parameter determines to which alarm frames and how the device should react. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave protocol specification.
Available settings:	**1B** [MSB] - Notification Type
	2B - Notification Status
	3B - Event/State Parameters
	4B [LSB] - action:
	0 - no action
	1 - open blinds
	2 - close blinds
Default setting:	**[0x05, 0xFF, 0x00, 0x00]**
	(Water Alarm, any notification, no action)
Parameter size:	**4** [bytes]

Parameter:	**32. Alarm configuration - 3rd slot (Smoke)**
Description:	This parameter determines to which alarm frames and how the device should react. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave protocol specification.
Available settings:	**1B** [MSB] - Notification Type
	2B - Notification Status
	3B - Event/State Parameters
	4B [LSB] - action:
	0 - no action
	1 - open blinds
	2 - close blinds
Default setting:	**[0x01, 0xFF, 0x00, 0x00]**
	(Smoke Alarm, any notification, no action)
Parameter sizes:	**4** [bytes]

Parameter:	**33. Alarm configuration - 4th slot (CO)**
Description:	This parameter determines to which alarm frames and how the device should react. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave protocol specification.

Available settings:	**1B** [MSB] - Notification Type **2B** - Notification Status **3B** - Event/State Parameters **4B** [LSB] - action: **0** - no action **1** - open blinds **2** - close blinds		
Default setting:	**[0x02, 0xFF, 0x00, 0x00]** (CO Alarm, any notification, no action)		
Parameter size:	**4** [bytes]		
Parameter:	**34. Alarm configuration - 5th slot (Heat)**		
Description:	This parameter determines to which alarm frames and how the device should react. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave protocol specification.		
Available settings:	**1B** [MSB] - Notification Type **2B** - Notification Status **3B** - Event/State Parameters **4B** [LSB] - action: **0** - no action **1** - open blinds **2** - close blinds		
Default setting:	**[0x04, 0xFF, 0x00, 0x00]** (Heat Alarm, any notification, no action)		
Parameter size:	**4** [bytes]		
Parameter:	**40. S1 switch - scenes sent**		
Description:	This parameter determines which actions result in sending scene IDs assigned to them.		
Available settings:	**1** - Key pressed 1 time **2** - Key pressed 2 times **4** - Key pressed 3 times **8** - Key hold down and key released		
Default setting:	**0**	Parameter size:	**1** [byte]
Parameter:	**41. S2 switch - scenes sent**		
Description:	This parameter determines which actions result in sending scene IDs assigned to them.		
Available settings:	**1** - Key pressed 1 time **2** - Key pressed 2 times **4** - Key pressed 3 times **8** - Key hold down and key released		
Default setting:	**0**	Parameter size:	**1** [byte]
Parameter:	**60. Measuring power consumed by the device itself**		
Description:	This parameter determines whether the power metering should include the amount of active power consumed by the device itself.		
Available settings:	**0** - function inactive **1** - function active		
Default setting:	**0**	Parameter size:	**1** [byte]
Parameter:	**61. Power reports - on change**		
Description:	This parameter determines the minimum change in consumed power that will result in sending new power report to the main controller. For loads under 50W, the parameter is not relevant and reports are sent every 5W change. Power report are sent no often then every 30 seconds.		
Available settings:	**0** - reports are disabled **1-500** (1-500%) - change in power		
Default setting:	**15** (15%)	Parameter size:	**2** [bytes]
Parameter:	**62. Power reports - periodic**		
Description:	This parameter determines in what time intervals the periodic power reports are sent to the main controller. Periodic reports do not depend on power change (parameter 61).		

Available settings:	**0** - periodic reports are disabled **30-32400** (30-32400s) - report interval

Default setting:	**3600** (1h)	Parameter size:	**2** [bytes]

Parameter:	**65. Energy reports - on change**
Description:	This parameter determines the minimum change in consumed energy that will result in sending new energy report to the main controller.
Available settings:	**0** - reports are disabled **1-500** (0.01 - 5 kWh) - change in energy

Default setting:	**10** (0.1 kWh)	Parameter size:	**2** [bytes]

Parameter:	**66. Energy reports - periodic**
Description:	This parameter determines in what time intervals the periodic energy reports are sent to the main controller. Periodic reports do not depend on energy change (parameter 65).
Available settings:	**0** - periodic reports are disabled **30-32400** (30-32400s) - report interval

Default setting:	**3600** (1h)	Parameter size:	**2** [bytes]

Parameter:	**150. Force calibration**
Description:	By setting this parameter to 2 the device enters the calibration mode. The parameter relevant only if the device is set to work in positioning mode (parameter 151 set to 1, 2 or 4).
Available settings:	**0** - device is not calibrated **1** - device is calibrated **2** - force device calibration

Default setting:	**0**	Parameter size:	**1** [byte]

Parameter:	**151. Operating mode**
Description:	This parameter allows adjusting operation according to the connected device.
Available settings:	1 – roller blind (with positioning) 2 – Venetian blind (with positioning) 3 – gate (without positioning) 4 – gate (with positioning) 5 – roller blind with built-in driver 6 – roller blind with built-in driver (impulse)

Default setting:	**1**	Parameter size:	**1** [byte]

Parameter:	**152. Venetian blind - time of full turn of the slats**
Description:	For Venetian blinds (parameter 151 set to 2) the parameter determines time of full turn cycle of the slats. For gates (parameter 151 set to 3 or 4) the parameter determines time after which open gate will start closing automatically (if set to 0, gate will not close). The parameter is irrelevant for other modes.
Available settings:	**0-65535** (0-655.35s, every 0.01s) - time of turn

Default setting:	**150** (1.5s)	Parameter size:	**4** [bytes]

Parameter:	**153. Set slats back to previous position**
Description:	For Venetian blinds (parameter 151 set to 2) the parameter determines slats positioning in various situations. The parameter is irrelevant for other modes.
Available settings:	**0** – slats return to previously set position only in case of the main controller operation. **1** – slats return to previously set position in case of the main controller operation, momentary switch operation, or when the limit switch is reached. **2** – slats return to previously set position in case of the main controller operation, momentary switch operation, when the limit switch is reached or after receiving the Switch Multilevel Stop control frame

Default setting:	**1**	Parameter size:	**1** [byte]

Parameter:	**154. Delay motor stop after reaching end switch**

Description:	For blinds (parameter 151 set to 1, 2, 5 or 6) the parameter determines the time after which the motor will be stopped after end switch contacts are closed. Parameter allows to calibrate devices with soft start by setting soft start time.
	For gates (parameter 151 set to 3 or 4) the parameter determines time after which the gate will start closing automatically if S2 contacts are opened (if set to 0, gate will not close).

Available settings:	**0-255** (0-25.5s) - time		
Default setting:	**10** (1s)	Parameter size:	**2** [bytes]
Parameter:	**155. Motor operation detection**		
Description:	Power threshold to be interpreted as reaching a limit switch.		
Available settings:	**0** - reaching a limit switch will not be detected **1-255** (1-255W) - report interval		
Default setting:	**10**(10W)	Parameter size:	**2** [bytes]
Parameter:	**156. Time of up movement**		
Description:	This parameter determines the time needed for roller blinds to reach the top. For modes with positioning value is set automatically during calibration, otherwise it must be set manually.		
Available settings:	**1-65535** (0.01-655.35s, every 0.01s) - movement time		
Default setting:	**6000** (60s)	Parameter size:	**4** [bytes]
Parameter:	**157. Time of down movement**		
Description:	This parameter determines time needed for roller blinds to reach the bottom. For modes with positioning value is set automatically during calibration, otherwise it must be set manually.		
Available settings:	**1-65535** (0.01-655.35s, every 0.01s) - movement time		
Default setting:	**6000** (60s)	Parameter size:	**4** [bytes]

17 TECHNICAL SPECIFICATIONS

The product Roll-Control is produced by Nice S.p.A. (TV). Warnings: - All technical specifications stated in this section refer to an ambient temperature of 20 °C (± 5 °C) - Nice S.p.A. reserves the right to apply modifications to the product at any time when deemed necessary, while maintaining the same functionalities and intended use.

Roll-Control	
Type	in-wall/flush box mounted control unit for tubular motors
Power supply	100–240 V AC, 50/60 Hz
Rated load current	4.2A for lamps and resistive loads 1.7A for motors and compensated power factor (inductive loads)
Supported motor type	single-phase AC motors
Required limit switches	electronic or mechanic
Power consumption	up to 0.8W
Operating temperature	0-35°C
Operating humidity	10-95%RH without condensation
Active element	micro-gap relay switch μ
For installation in boxes	Ø ≥ 50mm, depth ≥ 60mm
Dimensions (L x W x H)	42.5 x 38.25 x 20.3 mm

Radio transceiver	
Radio protocol	Z-Wave (500 series chip)
Frequency band	868.4 or 869.8 MHz EU 921.4 or 919.8 MHz ANZ
Transceiver range	up to 50m outdoors up to 40m indoors (depending on terrain and building structure)
Max. transmit power	EIRP up to 6 dBm

(*) The transceiver range is strongly influenced by other devices operating at the same frequency with continuous transmission, such as alarms

and radio headphones which interfere with the control unit transceiver.

18 PRODUCT DISPOSAL

This product is an integral part of the automation and therefore must be disposed together with the latter.
As in installation, also at the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel. This product is made of various types of material, some of which can be recycled while others must be scrapped. Seek information on the recycling and disposal systems envisaged by the local regulations in your area for this product category.
Caution! – some parts of the product may contain pollutant or hazardous substances which, if disposed of into the environment, may cause serious damage to the environment or physical health.
As indicated by the symbol alongside, disposal of this product in domestic waste is strictly prohibited. Separate the waste into categories for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing a new version.
Caution! – local legislation may envisage serious fines in the event of abusive disposal of this product.

19 DECLARATION OF CONFORMITY

Hereby, Nice S.p.A., declares that the radio equipment type Roll-Control is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: http://www.niceforyou.com/en/support

Nice

www.niceforyou.com