Nice Roll-Control2 Z Wave Blind and Awning Controller Instruction Manual

Contents

Nice

Nice Roll-Control2 Z Wave Blind and Awning Controller

Product Description and Features
The Roll-Control2 allows remote control of roller blinds, venetian blinds, pergolas, curtains, awnings, and blind motors equipped with electronic or mechanical limit switches.

Installation

Before the Installation
Connecting the device in a manner inconsistent with the manual can cause risks. Follow the wiring guidelines provided.

Installation Steps

1. Switch off the mains voltage.
2. Open the wall switch box.
3. Connect following the provided wiring diagram.
4. Verify correct connection.
5. Arrange the device in the wall switch box.
6. Close the wall switch box.
7. Switch on the mains voltage.

Note: Use appropriate installation cables and connectors as specified in the manual.

Adding to Z-Wave Network

To add the device to a Z-Wave network:

1. Locate the device specific key (DSK) on the box.
2. Follow the instructions provided to initiate pairing.

Removing from Z-Wave Network

To remove the device from a Z-Wave network, follow the steps outlined in the manual.

Calibration

1. Increase or decrease parameter values as suggested in the manual to calibrate the device.
2. If calibration fails, use manual parameter settings for movement time adjustment.

FAQ

- **Q: How far is the range of the Roll-Control2 device?**
  A: The device has a range of up to 100 meters outdoors and up to 30 meters indoors, depending on terrain and building structure.
- **Q: What is the recommended power supply for the Roll-Control2?**
  A: The recommended power supply is 100-240 V~ at 50/60 Hz.

IMPORTANT SAFETY INFORMATION

CAUTION! – Read this manual before attempting to install the device! Failure to observe recommendations included in this manual can be dangerous or cause a violation of the law. The manufacturer, NICE SpA Oderzo TV Italia will not be held responsible for any loss or damage resulting from not following the instructions of operating manual.

DANGER OF ELECTROCUTION!

- 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 can be present at its terminals. Any maintenance introducing changes into the configuration of connections or the load must be always performed with disabled fuse.
- To avoid risk of electrical shock, don't operate the device with wet or moist hands.
- All works on the device can be performed only by a qualified and licensed electrician. Observe national regulations.

CAUTION!

- Do not modify! – Don't modify this device in any way not included in this manual.
- Other devices – The manufacturer, NICE SpA Oderzo TV Italia won't be held responsible for any damage or loss of warranty privileges for other connected devices if the connection isn't compliant with their manuals.
- This product is intended for indoor use only in dry locations. – Don't use in damp or wet locations, near a bathtub, sink, shower, swimming pool, or anywhere else where water or moisture are present.
- It isn't 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.
- Not a toy! – This product is not a toy. Keep away from children and animals!

DESCRIPTION AND FEATURES

The NICE Roll-Control2 is a device designed to control roller blinds, awnings, venetian blinds, curtains and pergolas.
The NICE Roll-Control2 enables precise positioning of roller blinds or venetian blind slats. It enables you to control connected devices either through the Z-Wave® network or through a switch connected directly to it. The device is equipped with energy monitoring.

Main features

- Can be used with:
  - Roller blinds
  - Venetian blinds
  - Pergolas
  - Curtains
  - Awnings
  - Blind motors with electronic or mechanical limit switches
- Has an energy metering
- Supports the Z-Wave® network security modes: S0 with the AES-128 encryption and the S2 Authenticated mode with the PRNG-based encryption
- Works as a Z-Wave® signal repeater (all non-battery operated devices within the network act as repeaters to increase reliability of the network)
- Can be used with all devices certified with the Z-Wave Plus® certificate and is compatible with such devices produced by other manufacturers
- Works with different types of switches. For the comfort of use, it’s recommended to use switches dedicated to the roller shutter operation (monostable, roller shutter switches)

The device is a Security Enabled Z-Wave Plus® product and a Security Enabled Z-Wave® Controller needs to be used to fully utilize the product.

SPECIFICATIONS

Table A1 – Roll-Control2 – Specifications	
Power supply	100-240 V~ 50/60 Hz
Rated load current	2 A for motors with compensated power factor (inductive loads)
Compatible load types	single-phase AC motors
Required limit switches	Electronic or mechanic
Recommended external overcurrent protection	10 A type B circuit breaker (EU) 13 A type B circuit breaker (Sweden)
For installation in boxes	Ø = 60 mm, depth ≥ 60 mm
Recommended wires	Cross-section area between 0.75-1.5 mm2 stripped 8 – 9 mm of insulation
Operating temperature	0 – 35°C
Ambient humidity	10 – 95% RH without condensation
Radio protocol	Z-Wave (800 series chip)
Radio frequency band	EU: 868.4 MHz, 869.85 MHz AH: 919.8 MHz, 921.4 MHz
Max. transmitting power	+6dBm
Range	up to 100 m outdoors up to 30 m indoors (depending on terrain and buildin g structure)
Dimensions (height x width x depth)	46 × 36 × 19.9 mm
Compliance with EU directives	RoHS 2011/65/EU RED 2014/53/EU

Note
Radio frequency of an individual device needs to be the same as your Z-Wave controller. Check information on the box or consult your dealer if you aren't sure.

INSTALLATION

Before the installation

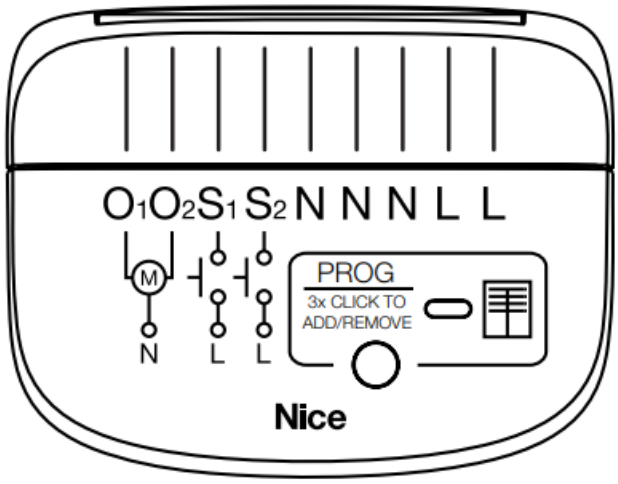
Connecting the device in a manner inconsistent with this manual can cause risk to health, life or material damage.

- Don't power the device before fully assembling it in the mounting box.

- Connect only in accordance with the pictures below.
- Install only in flush mounting boxes compliant with relevant national safety standards and with depth no less than 60 mm.
- Don’t connect devices which aren’t compliant with the specification or relevant safety standards.
- Don’t connect heating devices.
- Don’t connect SELV or PELV circuits.
- Make sure electrical switches used in installation are compliant with relevant safety standards.
- Make sure length of wires used to connect the control switch should not exceed 20 m.
- Connect roller blind AC motors with electronic or mechanical limit switches only.

Notes for the Picture 1:

- O1 – the 1st output terminal for the shutter motor
- O2 – the 2nd output terminal for the shutter motor
- S1 – the terminal for the 1st switch (also used for adding /removing the device)
- S2 – the terminal for the 2nd switch (also used for adding /removing the device)
- N – terminals for the neutral lead (connected internally)
- L – terminals for the live lead (connected internally)
- PROG – a service button (used to add/remove the device and navigate the menu)



Picture 1: Roll-Controll2 - outputs and terminals

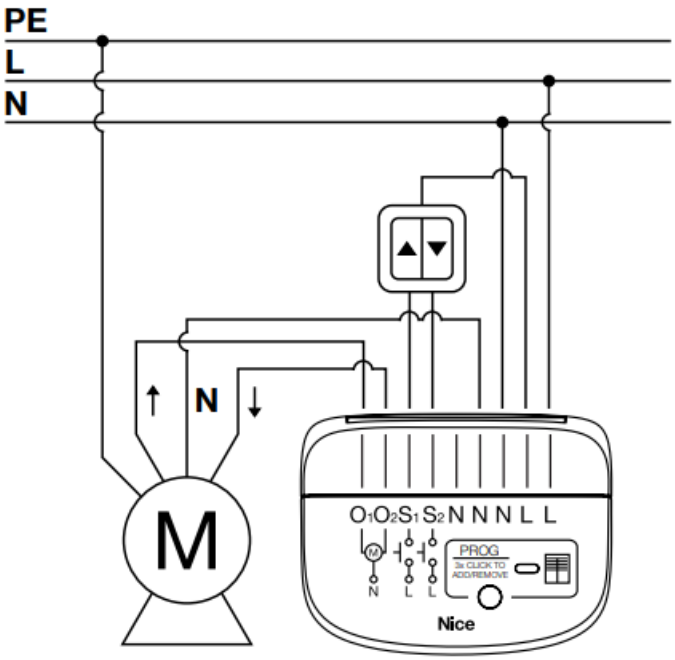
Caution!

Proper wiring and wire removal guidelines
Place wires ONLY into the terminal slot(s) of the device. To remove any wires, press the release button, located over the slot(s).

Installation

1. Switch off the mains voltage (disable the fuse).
2. Open the wall switch box.
3. Connect following the Picture 2 on the right.
4. Verify if the device is connected correctly.

5. Arrange the device in a wall switch box.
6. Close the wall switch box.
7. Switch on the mains voltage.



Picture 2: Wiring - connection with AC motor

Notes

- To connect external wall switch(es) use supplied jumper wires if necessary.
- If you are using Yubii Home app, you don't have to concern about connecting the directions correctly. You can change the directions in the the wizard and device settings in the mobile app.

Caution
The supplied jumper wires can only be used to connect wall switches. Use an appropriate installation cable to conduct the load current of the device. Other components of the installation (bridging) also needs to be connected with an appropriate installation cable. If necessary, use a suitable electrical wires connector.

ADDING TO Z-WAVE NETWORK

Adding (Inclusion) – the Z-Wave device learning mode enabling you to add the device to the existing Z-Wave network.

Adding manually

To add the device to the Z-Wave network manually:

1. Power the device. If the device isn't added to the Z-Wave network, the device LED indicator glows red.
2. Set the main controller in the (Security/non-Security) add mode (for more information, see the controller manual).
3. Quickly, click the PROG button on the device three times. Alternatively, click quickly S1 or S2 three times.
4. If you're adding the device in the Security S2 Authenticated mode, input the PIN Code, which is labelled on the device. The PIN Code is also an underlined part of the device specific key (DSK) labelled at the bottom of the

box.

5. Wait for the LED indicator to blink yellow.
6. Successful adding is confirmed by the Z-Wave controller message and the device LED indicator:

   Green – successful (non-secure, S0, S2 non-authenticated)

   Magenta – successful (Security S2 Authenticated)

   Red – not successful

Adding using SmartStart
SmartStart solution enables products to be added into the Z-Wave network by scanning the Z-Wave QR Code present on the product with a controller providing SmartStart inclusion. A SmartStart product is added automatically within 10 minutes of being switched on in the network range.

To add the device to the Z-Wave network using SmartStart:

1. To use the SmartStart solution your controller needs to support Security S2 mode (for more information, see the controller manual).
2. Enter the full DSK string code to your controller. If your controller is capable of QR scanning, scan the QR code placed on the label.
3. Power the device (turn on the mains voltage).
4. The LED indicator starts blinking yellow, wait for the adding process to end.
5. Successful adding is confirmed by the Z-Wave controller message and the device LED indicator:

   Green – successful (non-secure, S0, S2 non-authenticated mode),

   Magenta – successful (Security S2 Authenticated mode),

   Red – not successful

Note
In case of problems with adding the device, please reset the device and repeat the adding procedure.

REMOVING FROM Z-WAVE NETWORK

Removing (Exclusion) – the Z-Wave device learning mode enabling you to remove the device from the existing Z-Wave network.

To remove the device from the Z-Wave network:

1. Make sure the device is powered.
2. Set the main controller in the remove mode (for more information, see the controller manual).
3. Quickly, click the PROG button three times. Alternatively, click quickly S1 or S2 three times within 10 minutes of powering up the device.
4. Wait for the removing process to end.
5. Successful removing is confirmed by the Z-Wave controller message.
6. The device LED indicator glows red.

Note
Removing the device from the Z-Wave network doesn’t cause factory reset.

CALIBRATION

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

Automatic calibration using the menu

1. Press and hold the PROG button to enter the menu.
2. Release button when the device glows blue (the 1st position).
3. Quickly click the button to confirm.
4. The device performs the calibration process, completing a full cycle – a couple of up and down movements. During the calibration the LED blinks blue.
5. If the calibration is successful, the LED indicator glows green. If the calibration fails, the LED indicator glows red.
6. Test whether the positioning works correctly.

Automatic calibration using the parameter

1. Set parameter 150 to 3.
2. The device performs the calibration process, completing a full cycle – a couple of up and down movements. During the calibration the LED indicator blinks blue.
3. If the calibration is successful, the LED indicator glows green. If the calibration fails, the LED indicator glows red.
4. Test whether the positioning works correctly.

Notes:

- If you use Yubii Home App, you can perform the calibration from the wizard or from the device settings.
- The calibration process can work better if you put the blind in the middle open position before starting.
- You can stop the calibration process at any moment by clicking the PROG button or external keys.
- Electrical characteristics of motors can differ, which can cause the calibration failure. To fix that issue you can:
    1. Increase the value of parameter 154, for instance to 5 seconds before trying to perform the calibration again.
    2. If the calibration is still unsuccessful, decrease the value of parameter 155 to 1 W before trying to perform the calibration again.
    3. If steps 1 and 2 have failed, set parameter 155 to 0 and use parameters 156 and 157 to set manually the movement time. After setting the time manually it’s necessary to move the roller shutter to both end positions (fully open and fully closed) so that the module can properly use the defined movement time.

Manual positioning of slats in venetian blinds mode

1. Set parameter 151 to 1 (0-90°) or 2 (0-180°), depending on the rotation capability of the slats.
2. By default, parameter 152 is set to 15, which means that time of transition between the end positions is equal to 1.5 seconds.

3. Turn slats between the end positions by holding ▲ or ▼button:
    - If after a full cycle a blind starts moving up or down – decrease the value of parameter 152.
    - If after a full cycle the slats don't reach end positions – increase the value of parameter 152.
4. Repeat the previous step until a satisfactory positioning is achieved.
5. Test whether the positioning works correctly. Correctly configured slats shouldn't force the blinds to move up or down.

OPERATING THE DEVICE

The device enables connecting switch to the S1 and S2 terminals. These can be monostable or bistable switches. Switch buttons are responsible for managing the blind movement.

Description:
▲– Switch connected to the S1 terminal
▼– Switch connected to the S2 terminal

General tips:

- You can initiate, stop, or change the direction of movement using a switch or switches
- If you set flowerpot protection option the down movement action is performed only to a defined level.
- If you control only a venetian blind position (not slats rotation) the slats return to their previous position (in aperture level 0 – 95%).

 **Monostable switches – click to move**

Example of the switch design:

Table A2 – Roll-Control2 – Monostable switches – click to move	
Parameter:	**20. Switch type**
Description:	This parameter determines which switch types and mode S1 and S2 inputs operate wi th.
Set value:	0 – Monostable switches – click to move

Parameter:	**151. Roller blind, Awning, Pergola or Curtain**
Description:	1×click ▲ switch – Initiate up movement to the limit position Next click – stop 1×click ▼ switch – Initiate down movement to the limit position 2×click ▲ or ▼ switch – Favorite position Hold ▲ – Up movement until release Hold ▼ – Down movement until release
Available values:	0

Parameter:	151. Venetian blind
Description:	1×click ▲ switch – Initiate up movement to the limit position Next click – move to the right position 1×click ▼switch – Initiate down movement to the limit position 2×click ▲ or ▼ switch – Favorite position Hold ▲ – Turning slats up until release Hold ▼ – Turning slats down until release
Available values:	1 or 2

Favorite position – available

Monostable switches – hold to move

Example of the switch design:

Table A3 – Roll-Control2 – Monostable switches – hold to move	
Parameter:	20. Switch type
Description:	This parameter determines which switch types and mode S1 and S2 inputs operate wi th.
Set value:	1 – Monostable switches – hold to move

Parameter:	151. Roller blind, Awning, Pergola or Curtain
Description:	1×click ▲ switch – 10% up movement 1×click ▼ switch – 10% down movement 2×click ▲ or ▼ switch – Favorite position Hold ▲– Up movement until release Hold ▼– Down movement until release
Available values:	0

Parameter:	151. Venetian blind
Description:	1×click ▲ switch – Slats rotates up by the predefined step 1×click ▼ switch – Slats rotates down by the predefined step 2×click ▲ or ▼ switch – Favorite position Hold ▲ – Up movement until release Hold ▼ – Down movement until release
Available values:	1 or 2

Favorite position – available
If you hold down the switch longer than slats movement time + additional 4 seconds (default 1,5s+4s =5,5s) the

device will go limit position. In that case releasing the switch will do nothing.

 **Single monostable switch**

Example of the switch design:

Table A4 – Roll-Control2 – Single monostable switch	
Parameter:	**20. Switch type**
Description:	This parameter determines which switch types and mode S1 and S2 inputs operate wi th.
Set value:	2 – Single monostable switch

Parameter:	**151. Roller blind, Awning, Pergola or Curtain**
Description:	1×click – Initiate movement to the limit position Next click – stop One more click – Initiate movement to the opposite limit position 2×click – Favorite position Hold – Initiate movement until release
Available values:	0

Parameter:	**151. Venetian blind**
Description:	1×click – Initiate movement to the limit position Next click – stop One more click – Initiate movement to the opposite limit position 2×click – Favorite position Hold – Initiate movement until release
Available values:	1 or 2

Favorite position – available

 **Bistabile switches**

Example of the switch design:

Table A5 – Roll-Control2 – Bistabile switches	
Parameter:	**20. Switch type**
Description:	This parameter determines which switch types and mode S1 and S2 inputs operate wi th.
Set value:	3 – Bistable switches

Parameter:	151. Roller blind, Awning, Pergola or Curtain
Description:	1×click (circuit closed) – Initiate movement to the limit position Next click on the same – Stop same switch (circuit opened)
Available values:	0

Parameter:	151. Venetian blind
Description:	1×click (circuit closed) – Initiate movement to the limit position Next click on the same – Stop same switch (circuit opened)
Available values:	1 or 2

Favorite position – unavailable

☐ **Single bistabile switch**

Example of the switch design:

Table A6 – Roll-Control2 – Single bistable switch	
Parameter:	20. Switch type
Description:	This parameter determines which switch types and mode S1 and S2 inputs operate wi th.
Set value:	4 – Single bistable switch

Parameter:	151. Roller blind, Awning, Pergola or Curtain
Description:	1×click – Initiate movement to the limit position Next click – stop One more click – Initiate movement to the opposite limit position Next click – stop
Available values:	0

Parameter:	151. Venetian blind
Description:	1×click – Initiate movement to the limit position Next click – stop One more click – Initiate movement to the opposite limit position Next click – stop
Available values:	1 or 2

Favorite position – unavailable

 **Three-state switch**

Example of the switch design:

Table A7 – Roll-Control2 – Three-state switch	
Parameter:	**20. Switch type**
Description:	This parameter determines which switch types and mode S1 and S2 inputs operate wi th.
Set value:	5

Parameter:	**151. Roller blind, Awning, Pergola or Curtain**
Description:	1×click – Initiate movement to the limit position in the selected direction until the switc h selects the stop command
Available values:	0

Parameter:	**151. Venetian blind**
Description:	1×click – Initiate movement to the limit position in the selected direction until the switc h selects the stop command
Available values:	1 or 2

Favorite position – unavailable

Favorite position
Your device has a built-in mechanism for setting favorite positions.
You can activate it by double-clicking on the monostable switch(es) connected to the device or from the mobile interface (mobile app).

Favorite roller blind position
You can define the favorite position of the blinds. It can be set in parameter 159. The default value is set to 50%.

Favorite slats position
You can define the favorite position of the slats angle. It can be set in parameter 160. The default value is set to 50%.

Pot protection
Your device has a built-in mechanism to protect, for example, flowers on the windowsill. This is the so-called virtual limit switch. You can set its value in parameter 158. The default value is 0 – this means that the roller blind moves between the maximum end positions.

LED indicators
The built-in LED shows the current status of the device when the device is powered.

Table A8 – Roll-Control2 – LED colors and their meaninig	
Color	**Description**
Green	The device added to the Z-Wave network (non-secure, S0, S2 not Authenticated)
Magenta	The device added to the Z-Wave network (Security S2 Authenticated)
Red	The device not added to the Z-Wave network
Blinking cyan	Update in progress

MENU

Using the in-built device menu you can calibrate the device or perform factory reset.

To use the in-built device 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 PROG button to enter the menu.
5. Wait for the LED indicator to indicate the desired menu position with color:
    - BLUE – autocalibration
    - YELLOW – factory reset
6. Quickly release and click the PROG button again.
7. After clicking the PROG button, the LED indicator confirms the menu position by blinking.

RESETTING TO FACTORY DEFAULTS

The reset procedure enables you to restore the device back to its factory settings, which means all information about the Z-Wave controller and a user's configuration is deleted.
Please use this procedure only when the network primary controller is missing or otherwise inoperable.

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 PROG button to enter the menu.
5. Wait for the LED indicator to glow yellow.
6. Quickly release and click the PROG button again.
7. During the factory reset, the LED indicator blinks yellow.
8. After a few seconds the device is restarted, which is signalled with the the red color of the LED indicator.

ENERGY METERING
The device enables the energy consumption monitoring. Roll-Control2 reports energy consumption, but doesn't report instantaneous power. 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 (+/- 5% for loads greater than 10 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, 1 kWh = 1000 Wh.

Resetting consumption memory:
The consumption memory reset can be initiated through the hub interface (BUI) or Z-Wave controller using Meter CC. The consumption memory reset is also carried out, during the reset to factory defaults procedure.

CONFIGURATION

Association (linking devices) – direct control of other devices within the Z-Wave system network.

Associations enable:

- Reporting the device status to the Z-Wave controller (using the Lifeline group).
- Creating simple automations by controlling other devices without participation of the main controller (using groups assigned to actions on the device).
- Commands send to the 2nd association group reflect button operation according to the device configuration, e.g. starting the blinds movement using the button sends frame responsible for the same action.

The device provides the association of 2 groups:

- The 1st association group – “Lifeline” reports the device status and allows for assigning a single device only (main controller by default).
- The 2nd association group – “Window Covering” is intended for curtains or blinds allowing the user to control the amount of light going through windows.

The device enables to control 5 regular or multichannel devices per an association group, with the exception of the Lifeline group which is reserved solely for the controller and hence only 1 node can be assigned.

To add an association:

1. Go to Settings  .
2. Go to Devices.
3. Select the relevant device from the list.
4. Select the Associations tab.
5. Specify a group and devices to associate with.
6. Save your changes.

Table A9 – Roll-Control2 – Command Classes and Commands			
Group	**Profile**	**Command Class & Command**	**Group Name**
1	General: Lifeline (0x00: 0x01)	COMMAND_CLASS_DEVICE_RESET_LOCALLY [0x5A]	Lifeline
		DEVICE_RESET_LOCALLY_NOTIFICATION [0x01]	
		COMMAND_CLASS_WINDOW_COVERING [0x6A]	
		WINDOW_COVERING_REPORT [0x04]	
		COMMAND_CLASS_SWITCH_MULTILEVEL [0x26]	
		SWITCH_MULTILEVEL_REPORT [0x26]	
		COMMAND_CLASS_METER [0x32]	
		METER_REPORT [0x02]	
		COMMAND_CLASS_NOTIFICATION [0x71]	
		NOTIFICATION_REPORT [0x05]	
		COMMAND_CLASS_CENTRAL_SCENE [0x5B]	
		CENTRAL_SCENE_NOTIFICATION [0x03]	
		COMMAND_CLASS_CONFIGURATION [0x70]	
		CONFIGURATION_REPORT [0x06]	
2	Control: KEY 01 (0x20: 0x01)	COMMAND_CLASS_WINDOW_COVERING [0x6A]	Window Covering
		WINDOW_COVERING_SET [0x05]	
		COMMAND_CLASS_WINDOW_COVERING [0x6A]	
		WINDOW_COVERING_START_LEVEL_CHANGE [0x06]	
		COMMAND_CLASS_WINDOW_COVERING [0x6A]	
		WINDOW_COVERING_STOP_LEVEL_CHANGE [0x07]	

Table A10 – Roll-Control2 – Association Group 2: Window covering calibration status and command Id value				
Id	**Calibration status**		**Window Covering name**	**Window Covering id**
Id_Roller	0	The device isn’t calibrated	OUT_BOTTOM_1	12 (0x0C)
	1	Autocalibration successful	OUT_ BOTTOM _2	13 (0x0D)
	2	Autocalibration failed	OUT_BOTTOM_1	12 (0x0C)
	4	Manual calibration	OUT_ BOTTOM _2	13 (0x0D)
Id_Slats	0	The device isn’t calibrated	HORIZONTAL_SLATS_ANGLE_1	22 (0x16)
	1	Autocalibration successful	HORIZONTAL_SLATS_ANGLE_2	23 (0x17)
	2	Autocalibration failed	HORIZONTAL_SLATS_ANGLE_1	22 (0x16)
	4	Manual calibration	HORIZONTAL_SLATS_ANGLE_2	23 (0x17)

Table A11 – Roll-Control2 – Operating mode: Roller blind, Awning, Pergola, Curtain; Venetian blind 90°; Venetian blind 180°

Parametr 20 – Switch type		**Switch**	**Single Click**		**Double Click**	
Value	**Name**		**Command**	**ID**	**Command**	**ID**
0	Monostable switches – click to move	S1 or S2	Window Covering Start Level Change Window Covering Stop Level Change	Id_Roller	Window Covering Set Level	Id_Roller Id_Slats
1	Monostable switches – hold to move		Window Covering Set Level Change	Id_Roller Id_Slats		
2	Single monostable switch		Window Covering Start Level Change Window Covering Stop Level Change	Id_Roller		
3	Bistable switches			Id_Roller	–	–
5	Three-state switch			Id_Roller	–	–

Parametr 20 – Switch type		**Switch**	**Hold**		**Release**	
Value	**Name**		**Command**	**ID**	**Command**	**ID**
0	Monostable switches – click to move	S1 or S2	Window Covering Start Level Change Window Covering Stop Level Change	Id_Slats	Window Covering Stop Level Change	Id_Slats
1	Monostable switches – hold to move			Id_Roller		Id_Roller
2	Single monostable switch			Id_Slats		Id_Slats
3	Bistable switches		–	–	–	–
5	Three-state switch		–	–	–	–

Parameter 20 – Switch type		**Switch**	**Switch state change when roller isn't moving**		**Switch state change when roller is moving**	
Value	**Name**		**Command**	**ID**	**Command**	**ID**
4	Single bistable switch	S1 or S2	Window Covering Start Level Change	Id_Roller	Window Covering Stop Level Change	Id_Roller

Note
Id_Slats relates only to parameter 151 set to value 1 or 2.

ADVANCED PARAMETERS

The device enables customizing its operation to a user's needs using configurable parameters. The settings can be adjusted using the Z-Wave controller to which the device is added. The way of adjusting them might differ depending on the controller. In the NICE interface device configuration is available as a simple set of options in the Advanced Settings section. If you use Yubii Home app, many of the following parameter settings can be changed in the device settings section.

To configure the device:

1. Go to Settings ⚙.
2. Go to Devices.
3. Select the relevant device from the list.
4. Select the Parameters tab.
5. Change the appropriate settings or values.
6. Save your changes.

Table A12 – Roll-Control2 – Advanced parameters

Parameter	Description	Size	Default Value	Available Values
20 – Switch Type	This parameter determines which switch types and mode S1 and S2 inputs operate with.	1 [byte]	0 (default value)	0 – Monostable switches – click to move 1 – Monostable switches – hold to move 2 – Single monostable switch 3 – Bistable switches 4 – Single bistable switch 5 – Three-state switch
24 – Buttons orientation	This parameter enables reversing the operation of the buttons.	1 [byte]	0 (default value)	0 – default (1st button UP, 2nd button DOWN) 1 – reversed (1st button DOWN, 2nd button UP)
25 – Outputs orientation	This parameter enables reversing the operation of O1 and O2 without changing the wiring (e.g. in case of invalid motor connection).	1 [byte]	0 (default value)	0 – default (O1 – UP, O2 – DOWN) 1 – reversed (O1 – DOWN, O2 – UP)
40 – First button – scenes sent	This parameter determines which actions result in sending scene IDs assigned to them. Values can be combined (e.g. 1+2=3 means that scenes for single and double click are sent).	1 [byte]	15 (All scenes active)	0 – No scene active 1 – Key pressed 1 time 2 – Key pressed 2 times 4 – Key pressed 3 times 8 – Key hold down and key released
41 – Second button – scenes sent				

150– Calibration	To start automatic calibration, select the value 3. When the calibration process is successful, the parameter takes the value 1. When automatic calibration fails, the parameter takes the value 2.If the transitions times for the device are changed manually using the parameter (156/157), the parameter 150 takes the value 4.	1 [byte]	0 (default value)	0 – Device isn't calibrated 1 – Autocalibration successful 2 – Autocalibration failed 3 – Calibration process 4 – Manual calibration
151– Operating mode	This parameter enables you to adjust the operation, depending on the connected device.In the case of venetian blinds, the angle of rotation of the slats must also be selected.	1 [byte]	0 (default value)	0 – Roller blind, Awning, Pergola, Curtain 1 – Venetian blind 90° 2 – Venetian blind 180°
152 – Venetian blind – slats full turn time	For Venetian blinds the parameter determines the time of a full turn cycle of the slats. The parameter is irrelevant to other modes.	2 [byte]	15(1.5 seconds)	0 – 65535 (0 – 6553.5s, every 0.1s) – time of turn
154 – Delay for power detection after the motor start	The parameter should be modified only when using electric curtains or low-power motors!This parameter should be used when the engine slowly increases power consumption at start-up.	2 [byte]	10(1second)	0 – 255 (0 – 25.5 seconds)

Table A12 – Roll-Control2 – Advanced parameters				
Parameter	**Description**	**Size**	**Default Value**	**Available Values**
155 – Motor operation detection	The parameter should be modified only when using electric curtains or low-power motors! The power threshold is interpreted as reaching the limit switch.	2 [byte]	2 (2 W)	0 – reaching the limit switch isn't detected. In this case parameter 150 Calibration is set to 4 – Manual calibration. You need to correct the time manually in parameters 156 and 157.1 – 255 (1 – 255 W) – end switch detection
156 – Time of up movement	This parameter determines the time needed to reach the full opening. The value is set automatically during the calibration process. It should be manually set in case of problems with the autocalibration.	2 [byte]	600(60 seconds))	0 – 65535 (0 – 6553.5 s, every 0.1 s) – time of turn
157 – Time of down movement	This parameter determines the time needed to reach full closure. The value is set automatically during the calibration process. It should be manually set in case of problems with the autocalibration.			
158 – Virtual limit switch. The pot protection	This parameter enables you to set a fixed minimum level of lowering the shutter. For example, to protect a flowerpot located on a windowsill.	1 [byte]	0 (default value)	0-99
159 – Favorite position – opening level	This parameter enables you to define your favorite aperture level.	1 [byte]	50 (default value)	0-990x FF – Functionality disabled
160 – Favorite position – slat angle	This parameter enables you to define your favorite position of the slat angle. The parameter is used only for venetian blinds.			

Z-WAVE SPECIFICATION

Indicator CC – available indicators
Indicator ID – 0x50 (Identify)

Indicator CC – available properties

Table A13 – Roll-Control2 – Indicator CC		
Property ID	**Description**	**Values and requirements**
0x03	Toggling, On/Off Periods	Starts toggling between ON and OFF Used to set the duration of an On/Off period.Available values: • 0x00 .. 0xFF (0 .. 25.5 seconds) If this is specified, the On/Off Cycles MUST also be specified.
0x04	Toggling, On/Off Cycles	Used to set the number of On/Off periods.Available values: • 0x00 .. 0xFE (0 .. 254 times) • 0xFF (indicate until stopped) If this is specified, the On/Off Period MUST also be specified.
0x05	Toggling, On time within an On/Off period	Used to set the length of the On time during an On/Off period. It allows a symetic On/Off periods. Available values • 0x00 (symmetric On/Off period – On time equal to Off time) • 0x01 .. 0xFF (0.1 .. 25.5 seconds) Example: 300ms ON and 500ms OFF is achieved by setting On/Off period (0x03) = 0x08 and On time within an On/Off Period(0x05) = 0x03 This value is ignored if On/Off periods is not defined. This value is ignored if On/Off periods value is less than this value.

Supported Command Classes

Table A14 – Roll-Control2 – Supported Command Classes		
Command Class	**Version**	**Secure**
COMMAND_CLASS_APPLICATION_STATUS [0x22]	V1	
COMMAND_CLASS_ZWAVEPLUS_INFO [0x5E]	V2	
COMMAND_CLASS_WINDOW_COVERING [0x6A]	V1	YES
COMMAND_CLASS_SWITCH_MULTILEVEL [0x26]	V4	YES
COMMAND_CLASS_ASSOCIATION [0x85]	V2	YES
COMMAND_CLASS_MULTI_CHANNEL ASSOCIATION [0x8E]	V3	YES

COMMAND_CLASS_ASSOCIATION_GRP_INFO [0x59]	V3	YES
COMMAND_CLASS_TRANSPORT_SERVICE [0x55]	V2	
COMMAND_CLASS_VERSION [0x86]	V3	YES
COMMAND_CLASS_MANUFACTURER_SPECIFIC [0x72]	V2	YES
COMMAND_CLASS_DEVICE_RESET_LOCALLY [0x5A]	V1	YES
COMMAND_CLASS_POWERLEVEL [0x73]	V1	YES
COMMAND_CLASS_SECURITY [0x98]	V1	
COMMAND_CLASS_SECURITY_2 [0x9F]	V1	
COMMAND_CLASS_METER [0x32]	V3	YES
COMMAND_CLASS_CONFIGURATION [0x70]	V4	YES
COMMAND_CLASS_NOTIFICATION [0x71]	V8	YES
COMMAND_CLASS_PROTECTION [0x75]	V2	YES
COMMAND_CLASS_CENTRAL_SCENE [0x5B]	V3	YES
COMMAND_CLASS_FIRMWARE_UPDATE_MD [0x7A]	V5	YES
COMMAND_CLASS_SUPERVISION [0x6C]	V1	
COMMAND_CLASS_INDICATOR [0x87]	V3	YES
COMMAND_CLASS_BASIC [0x20]	V2	YES

Basic CC

Table A15 – Roll-Control2 – Basic CC			
Command	**Value**	**Mapping command**	**Mapping value**
Basic Set	[0xFF]	Multilevel Switch Set	[0xFF]
Basic Set	[0x00]	Multilevel Switch Set	Multilevel Switch Set
Basic Set	[0x00] to [0x63]	Start Level Change(Up/Down)	[0x00], [0x63]
Basic Get		Multilevel Switch Get	
Basic Report(Current Value and Target Val ueMUST be set to 0xFE if not position awa re.)		Multilevel Switch Re port	

Notification CC
The device uses Notification Command Class to report different events to the controller (“Lifeline” Group).

Table A16 – Roll-Control2 – Notification CC				
Notification Type	**Event / State**	**Parameter**	**Status**	**In endpoint s**
Power Management [0x08]	Idle [0x00]	–	0xFF – enable (non changeable)	Root
	Over-current detected [0x06]			
System [0x09]	Idle [0x00]			
	System hardware failu re with manufacturer p roprietary failure code [0x03]	MP code: 0x0 1 [device over heat]	0xFF – enable (non changeable)	Root

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

Table A17 – Roll-Control2 – Protection CC			
Type	**State**	**Description**	**Hint**
Local	0	Unprotected – The device is not protected, and may be oper ated normally via the user interface.	Buttons connected with outputs.
Local	2	No operation possible – button can not change relay state, a ny other functionality is available (menu).	Buttons disconnected from outputs.
RF	0	Unprotected – The device accept and respond to all RF Com mands.	Outputs can be controlled via Z-Wa ve.
RF	1	No RF control – command class basic and switch binary are rejected, every other command class will be handled.	Outputs cannot be controlled via Z-Wave.

Meter CC

Table A18 – Roll-Control2 – Meter CC				
Meter Type	**Scale**	**Rate Type**	**Precision**	**Size**
Electric [0x01]	Electric_kWh [0x00]	Import [0x01]	1	4

Altering capabilities

NICE Roll-Control2 uses different set of Window Covering Parameter IDs depending on the values of the 2 parameters:

- Calibration status (parameter 150),
- Operating mode (parameter 151).

Table A19 – Roll-Control2 – Altering capabilities		
Calibration status (parameter 150)	**Operating mode (parameter 151)**	**Supported Window Covering Parameter IDs**
0 – Device is not calibrated or 2 – Autocalibration failed	0 – Roller blind, Awning, Pergola, Curtain	out_bottom (0x0C)
0 – Device is not calibrated or 2 – Autocalibration failed	1 – Venetian blind 90° or 2 – Roller blind with built-in driver 180°	out_bottom (0x0C) Horizontal slats angle (0x16)
1 – Autocalibration successful or 4 – Manual calibration	0 – Roller blind, Awning, Pergola, Curtain	out_bottom (0x0D)
1 – Autocalibration successful or 4 – Manual calibration	1 – Venetian blind 90° or 2 – Roller blind with built-in driver 180°	out_bottom (0x0D) Horizontal slats angle (0x17)

If any of the parameters 150 or 151 changes, the controller should perform the rediscovery procedure to update the set of Supported Window Covering Parameter IDs.
If the controller isn't capable of performing the rediscovery procedure, it's necessary to re-include the node in the network.

Association Group Information CC

Table A20 – Roll-Control2 – Association Group Information CC			
Group	**Profile**	**Command Class & Command**	**Group Name**
1	General: Lifeline (0x00: 0x01)	DEVICE_RESET_LOCALLY_NOTIFICATION [0x5A 0x01]	Lifeline
		NOTIFICATION_REPORT [0x71 0x05]	
		SWITCH_MULTILEVEL_REPORT [0x26 0x03]	
		WINDOW_COVERING_REPORT [0x6A 0x04]	
		CONFIGURATION_REPORT [0x70 0x06]	
		INDICATOR_REPORT [0x87 0x03]	
		METER_REPORT [0x32 0x02]	
		CENTRAL_SCENE_CONFIGURATION_ REPORT [0x5B 0x06]	
2	Control: KEY 01 (0x20: 0x01)	WINDOW_COVERING_SET [0x6A 0x05]	Window Covering
		WINDOW_COVERING_START_LVL_ CHANGE [0x6A 0x06]	
		WINDOW_COVERING_STOP_LVL_ CHANGE [0x6A 0x07]	

REGULATIONS

Legal Notices:
All information, including, but not limited to, information regarding the features, functionality, and/or other product specifications are subject to change without notice. NICE reserves all rights to revise or update its products, software, or documentation without any obligation to notify any individual or entity. NICE logo is a trademark of NICE SpA Oderzo TV Italia All other brands and product names referred to herein are trademarks of their respective holders.

WEEE Directive Compliance

Device labelled with this symbol should not be disposed with other household wastes.
It shall be handed over to the applicable collection point for the recycling of waste electrical and electronic equipment.

Declaration of conformity

CE Hereby, NICE SpA Oderzo TV Italia declares that the device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: **www.niceforyou.com/en/download?v=18**

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Documents / Resources

	**Nice Roll-Control2 Z Wave Blind and Awning Controller** [pdf] Instruction Manual Roll-Control2 Z Wave Blind and Awning Controller, Roll-Control2, Z Wave Blind and Awning Controller, Blind and Awning Controller, Awning Controller, Controller

References

- Nice North America - Home Automation Systems
- User Manual