Nice Roll-Control2 Module Interface Instruction Manual

Contents

Nice Roll-Control2 Module Interface

remote control of blinds awnings, Venetian blinds, curtains, and pergolas

IMPORTANT SAFETY INFORMATION

- CAUTION! – Read this manual before attempting to install the device! Failure to observe the recommendations included in this manual may 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 the 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.
- DANGER OF ELECTROCUTION! Even when the device is turned off, voltage may be present at its terminals. Any maintenance introducing changes to the configuration of connections or the load must be always performed with a disabled fuse.
- DANGER OF ELECTROCUTION! To avoid the risk of electrical shock, do not operate the device with wet or moist hands.
- CAUTION! – All works on the device may be performed only by a qualified and licensed electrician. Observe national regulations.
- Do not modify! – Do not modify this device in any way not included in this manual.
- Other devices – The manufacturer, NICE SpA Oderzo TV Italia will not be held responsible for any damage or loss of warranty privileges for other connected devices if the connection is not compliant with their manuals.
- This product is intended for indoor use only in dry locations. – Do not use in damp locations, near a bathtub, sink, shower, swimming pool, or anywhere else where water or moisture are present.
- CAUTION! – 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.
- CAUTION! – 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 allows precise positioning of roller blinds or Venetian blind slats. The device is equipped with energy monitoring. It allows to control of connected devices either via the Z-Wave® network or via a switch connected directly to it.

Main features

- Can be used with:
  - Roller blinds.
  - Venetian blinds.
  - Pergolas.
  - Curtains.
  - Awnings.
  - Blind motors with electronic or mechanical limit switches.
- Active energy metering.
- Supports Z-Wave® network Security Modes: S0 with AES-128 encryption and S2 Authenticated with PRNG-based encryption.
- Works as a Z-Wave® signal repeater (all non-battery operated devices within the network will act as repeaters to increase the reliability of the network).
- May be used with all devices certified with the Z-Wave Plus® certificate and should be compatible with such devices produced by other manufacturers.
- Works with different types of switches; for comfort of use, it is recommended to use switches dedicated to the NICE Roll-Control2 operation (monostable, NICE Roll-Control2 switches).

Note:
The device is a security-enabled Z-Wave Plus® product and a security-enabled Z-Wave® controller must be used to fully utilize the product.

SPECIFICATIONS

Specifications	
Power supply	100-240V~ 50/60 Hz
Rated load current	2A for motors with compensated power factor (inductive loads)
Compatible load types	M~ single-phase AC motors
Required limit switches	Electronic or mechanic
Recommended external overcurrent protection	10A type B circuit breaker (EU) 13A type B circuit breaker (Sweden)
For installation in boxes	Ø = 50mm, depth ≥ 60mm
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)
Radiofrequency band	EU: 868.4 MHz, 869.85 MHz AH: 919.8 MHz, 921.4 MHz
Max. transmitting power	+6dBm
Range	up to 100m outdoors up to 30m indoors (depending on terrain and building 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:
The radio frequency of individual devices must be the same as your Z-Wave controller. check the information on the box or consult your dealer if you are not sure.

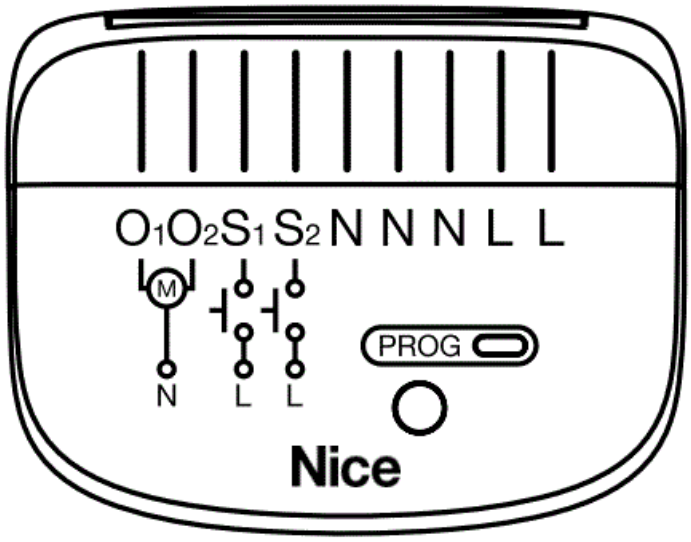
INSTALLATION

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

- Do not power the device before fully assembling it in the mounting box,
- Connect only under one of the diagrams,
- Install only in flush mounting boxes compliant with relevant national safety standards and with a depth no less than 60mm,
- Do not connect heating devices,
- Do not connect SELV or PELV circuits,
- Electrical switches used in the installation should be compliant with the relevant safety standards,
- The length of wires used to connect the control switch should not exceed 20m,

- Connect roller blind AC motors with electronic or mechanical limit switches only.

Notes for the diagrams:



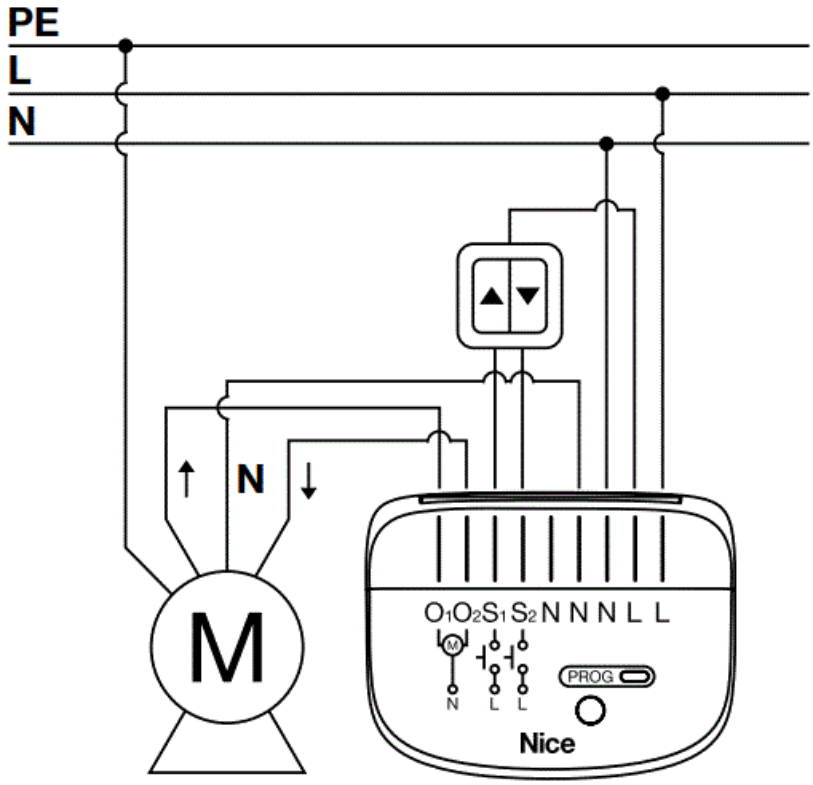
- O1 – 1st output terminal for shutter motor
- O2 – 2nd output terminal for shutter motor
- S1 – terminal for 1st switch (used to add/remove the device)
- S2 – terminal for 2nd switch (used to add/remove the device)
- N – terminals for the neutral lead (connected internally)
- L – terminals for live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

ATTENTION!

- 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)

1. Switch off the mains voltage (disable the fuse).
2. Open the wall switch box.
3. Connect with the following diagram.

   Wiring diagram – connection with AC motor



NICE Roll-Control2

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.

Note:
If you are using Yubii Home, HC3L, or HC3 Hub, you don't have to be concerned about connecting the directions correctly. You can change the directions in the wizard and device settings in the mobile app.
To connect external switches/ switches use supplied jumper wires if necessary.

ADDING TO Z-WAVE NETWORK

Adding (Inclusion) – Z-Wave device learning mode, allowing to addition of the device to the existing Z-Wave network. Adding manually
To add the device to the Z-Wave network manually:

1. Power the device.
2. Identify the PROG button or the S1/S2 switches.
3. Set the main controller in (Security/non-Security Mode) add mode (see the controller's manual).
4. Quickly, click PROG button three times. Optionally, click S1 or S2 three times.
5. If you are adding in Security S2 Authenticated, input the PIN Code (label on the device, also underlined part of the DSK on the label on the bottom of the box).
6. Wait for the LED indicator to blink yellow.
7. Successful adding will be confirmed by the Z-Wave controller's message and the device's LED indicator:
    - Green – successful (non-secure, S0, S2 non-authenticated)
    - Magenta – successful (Security S2 Authenticated)
    - Red – not successful

Adding using SmartStart
SmartStart-enabled products can be added into a Z-Wave network by scanning the Z-Wave QR Code present on the product with a controller providing SmartStart inclusion. SmartStart product will be 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 SmartStart your controller needs to support Security S2 (see the controller's 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 on the bottom of the box.
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 and the device's LED indicator:
    - Green – successful (non-secure, S0, S2 non-authenticated),
    - Magenta – successful (Security S2 Authenticated),
    - 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) – Z-Wave device learning mode, allowing to removal of 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. Identify the PROG button or the S1/S2 switches.
3. Set the main controller in remove mode (see the controller's manual).
4. Quickly, click the PROG button three times. Optionally, click S1 or S2 three times within 10 minutes of powering up the device.
5. Wait for the removal process to end.
6. Successful removal will be confirmed by the Z-Wave controller's message and the device's LED indicator – Red.
7. Removing the device from the Z-Wave network doesn't cause a factory reset.

CALIBRATION

Calibration is a process during which a 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 an automatic, full movement between the limit switches (up, down, and up again).

Automatic calibration using the menu

1. Press and hold the PROG button to enter the menu.
2. Release the button when the device glows blue.
3. Quickly click the button to confirm.
4. The device will perform the calibration process, completing a full cycle – up, down, and up again. During the

calibration, the LED blinks blue.

5. If the calibration is successful, the LED indicator will glow green, if the calibration is failed, the LED indicator will glow red.
6. Test whether the positioning works correctly.

Automatic calibration using the parameter

1. Set parameter 150 to 3.
2. The device will perform the calibration process, completing a full cycle – up, down, and up again. During the calibration, the LED blinks blue.
3. If the calibration is successful, the LED indicator will glow green, if the calibration is failed, the LED indicator will glow red.
4. Test whether the positioning works correctly.

Note:
If you are using Yubii Home, HC3L, or HC3 Hub, you can perform calibration from the wizard or device settings in the mobile app.
Note:
You can stop the calibration process at any moment by clicking a prog button or external keys.
Note:
If the calibration fails, you can manually set times of up and down movements (parameters 156 and 157).

Manual positioning of slats in Venetian blinds mode

1. Set parameter 151 to 1 (90°) or 2 (180°), depending on the rotation capability of the slats.
2. By default, the time of transition between extreme positions is set to 15 (1.5 seconds) in parameter 152.
3. Turn slats between extreme positions using ▲ or ▼ switch:
    - If after the full cycle, a blind start moving up or down – decrease the value of parameter 152,
    - If after the full cycle, the slats do not reach end positions – increase the value of parameter 152,
4. Repeat the 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.

OPERATING THE DEVICE

- The device allows for connecting switches to the S1 and S2 terminals.
- These may be monostable or bistable switches.
- Switch buttons are responsible for managing the blind's movement.

Description:

- ▲ – Switch connected to the S1 terminal
- ▼ – Switch connected to the S2 terminal

General tips:

- You can perform/stop movement or change direction using switch/es
- If you set the flowerpot protection option the down movement action will perform only to a defined level
- If you control only a Venetian blind position (not slats rotation) the slats will back to their previous position (in aperture level 0-95%).

Monostable switches – click to move Example of the switch design:

Monostable switches – click to move	
Parameter:	**20.**
Value:	0

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 – stop 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:

Monostable switches – hold to move	
Parameter:	**20.**
Value:	1

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 rotate up by the predefined step 1×click ▼ switch – Slats rotate 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 slat movement time + an 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:

Single monostable switch	
Parameter:	**20.**
Value:	3

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

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

Favorite position – available

Bistabile switches
Example of the switch design:

Bistabile switches	
Parameter:	20.
Value:	3

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
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 bistable switch
Example of the switch design:

Single bistable switch	
Parameter:	20.
Value:	4

Parameter:	151. Roller blind, Awning, Pergola or Curtain
Description:	1×click switch – 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
Description:	1×click switch – 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:

Bistabile switches	
Parameter:	20.
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 switch selects the stop command
Available values:	0

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

Favorite position – unavailable

Favorite position

- Your device has a built-in mechanism for setting your 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 will move between the maximum end positions.

LED indicators

- The built-in LED shows the current status of the device. When the device is powered:

Color	Description
Green	Device added to Z-Wave network (non-secure, S0, S2 not Authenticated)
Magenta	Device added to Z-Wave network (Security S2 Authenticated)
Red	The device not added to the Z-Wave network
Blinking cyan	Update in progress

MENU

The menu allows to perform actions. 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 PROG button to enter the menu.
5. Wait for the LED 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 will confirm the menu position by blinking.

RESETTING TO FACTORY DEFAULTS

Resetting the device to factory defaults:
The reset procedure allows to restoration the device back to its factory settings, which means all information about the Z-Wave controller and user configuration will be 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 will blink yellow.
8. After a few seconds, the device will be restarted, which is signal-led with the red LED indicator color.

ENERGY METERING

- The device allows for the 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 (+/- 5% for loads greater than 10W).
- Electric energy – energy consumed by a device through time.

- Consumers of electricity in households are billed by suppliers based on active power used in a given unit of time. Most commonly measured in kilowatt-hour [kWh].
- One kilowatt-hour is equal to one kilowatt of power consumed for one hour, 1kWh = 1000Wh.
- Resetting consumption memory:
- The device will erase energy consumption data on factory reset.

CONFIGURATION

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

- Reporting the device status to the Z-Wave controller (using Lifeline Group),
- Creating simple automation by controlling other 4th devices without the participation of the main controller (using groups assigned to actions on the device).

Note.
Commands sent to 2nd association group reflect button operation according to device configuration,
e.g. starting the blinds movement using the button will send the frame responsible for the same action.

The device provides the association of 2 groups:

- 1st association group – “Lifeline” reports the device status and allows for assigning a single device only (main controller by default).
- 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 allows to control of 5 regular or multichannel devices for 2nd association group, while “Lifeline” 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 to which group and which devices to associate.
6. Save your changes.

Association Group 2: „Window Covering" status and command Id value. **Window covering calibration status and command Id value.**				
Id	**Calibration status**		**Window Covering name**	**Window Covering id**
Id_Roller	0	Device is not 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_Slat	0	Device is not 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)

Operating mode: Roller blind, Awning, Pergola, Curtain **(parameter 151 value = 0)**						
Switch type **Parametr (20)**		**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
1	Monostable switches – hold to move					
2	Single monostable switch					
3	Bistable switches		–	–	–	–
5	Three-state switch		–	–	–	–

Switch type **Parametr (20)**		**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_Roller	Window Covering Stop Level Change	Id_Roller
1	Monostable switches – hold to move					
2	Single monostable switch					
3	Bistable switches		–	–	–	–
5	Three-state switch		–	–	–	–

Switch type Parametr (20)		**Switch**	**Switch state change when roller is not moving**		**Switch state change when roller is not 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_Rollerv

Operating mode: Venetian blind 90° **(param 151 = 1) or Venetian blind 180° (param 151 = 2)**						
Switch type **Parametr (20)**		**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_Slat
1	Monostable switches – hold to move			Id_Slat		
2	Single monostable switch			Id_Roller		
3	Bistable switches		–	–	–	–
5	Three-state switch		–	–	–	–

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

Switch type Parametr (20)		**Switch**	**Switch state change when roller is not moving**		**Switch state change when roller is not moving**	
Value	**Name**	S1 or S2	**Command**	**ID**	**Command**	**ID**
4	Single bistable switch		Window Covering Start Level Change	Id_Roller	Window Covering Stop Level Change	Id_Rollerv

ADVANCED PARAMETERS

- The device allows customizing its operation to the user's needs using configurable parameters.
- The settings can be adjusted via 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.

To configure the device:

1. Go to Settings.
2. Go to Devices.
3. Select the relevant device from the list.
4. Select the Advanced or Parameters tab.
5. Select and change the parameter.
6. Save your changes.

Advanced parameters			
Parameter:	**20. Switch type**		
Description:	This parameter determines with which switches types and in which mode the S1 and S2 in puts operate.		
Available setting s:	0 – Monostable switches – click to move 1 – Monostable switches – hold to move 2 – Singl e monostable switch 3 – Bistable switches 4 – Single bistable switch 5 – Three-state switch		
Default setting:	**0** (default value)	Parameter size:	**1** [byte]

Parameter:	**24. Buttons orientation**		
Description:	This parameter allows reversing the operation of the buttons.		
Available setting s:	0 – default (1st button UP, 2nd button DOWN) 1 – reversed (1st button DOWN, 2nd button UP)		
Default setting:	**0** (default value)	Parameter size:	**1** [byte]

Parameter:	**25. Outputs orientation**		
Description:	This parameter allows reversing the operation of O1 and O2 without changing the wiring (e .g. in case of invalid motor connection).		
Available setting s:	0 – default (O1 – UP, O2 – DOWN) 1 – reversed (O1 – DOWN, O2 – UP)		
Default setting:	**0** (default value)	Parameter size:	**1** [byte]

Parameter:	**40. First button – scenes sent**		
Description:	This parameter determines which actions result in sending scene IDs assigned to them. Va lues can be combined (e.g. 1+2=3 means that scenes for single and double click are sent). Enabling scenes for triple click disables entering the device in learn mode by triple clicking.		
Available setting s:	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		
Default setting:	**15** (All scenes active)	Parameter size:	**1** [byte]

Parameter:	**41. Second button – scenes sent**		
Description:	This parameter determines which actions result in sending scene IDs assigned to them. Va lues can be combined (e.g. 1+2=3 means that scenes for single and double click are sent). Enabling scenes for triple click disables entering the device in learn mode by triple clicking.		
Available setting s:	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		
Default setting:	**15** (All scenes active)	Parameter size:	**1** [byte]

Parameter:	**150. Calibration**		
Description:	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 paramet er takes the value 2. If the transitions times for the device are changed manually in the parameter (156/157), the param- eter 150 will takes the value 4.		
Available setting s:	0 – Device is not calibrated 1 – Autocalibration successful 2 – Autocalibration failed 3 – Calibration process 4 – Manual calibration		
Default setting:	**0** (default value)	Parameter size:	**1** [byte]

Parameter:	**151. Operating mode**		
Description:	This parameter allows 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.		
Available settings:	0 – Roller blind, Awning, Pergola, Curtain 1 – Venetian blind 90° 2 – Venetian blind 180°		
Default setting:	**0** (default value)	Parameter size:	**1** [byte]

Parameter:	**152. Venetian blind – slats full turn time**		
Description:	For Venetian blinds the parameter determines time of full turn cycle of the slats. The parameter is irrelevant for other modes.		
Available settings:	0-65535 (0 – 6553.5s, every 0.1s) – time of turn		
Default setting:	**15** (1.5 seconds)	Parameter size:	**2** [byte]

Parameter:	**156. Time of up movement**		
Description:	This parameter determines the time it takes to reach full opening. The value is set automatically during the calibration process. It should be manually set in case of problems with the autocalibration.		
Available settings:	0-65535 (0 – 6553.5s, every 0.1s) – time of turn		
Default setting:	**600** (60 seconds)	Parameter size:	**2** [byte]

Parameter:	**157. Time of down movement**		
Description:	This parameter determines the time it takes 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.		
Available settings:	0-65535 (0 – 6553.5s, every 0.1s) – time of turn		
Default setting:	**600** (60 seconds)	Parameter size:	**2** [byte]

Parameter:	**158. Virtual limit switch. The pot protection**		
Description:	This parameter allows you to set a fixed minimum level of lowering the shutter. For example, to protect a flowerpot located on a windowsill.		
Available settings:	0-99		
Default setting:	**0** (default value)	Parameter size:	**1** [byte]

Parameter:	**159. Favorite position – opening level**		
Description:	This parameter allows you to define your favorite aperture level.		
Available settings:	0-99 0xFF – Functionality disabled		
Default setting:	**50** (default value)	Parameter size:	**1** [byte]

Parameter:	**160. Favorite position – slat angle**		
Description:	This parameter allows you to define your favorite position of the slat angle. The parameter is used only for venetian blinds.		
Available settings:	0-99 0xFF – Functionality disabled		
Default setting:	**50** (default value)	Parameter size:	**1** [byte]

Z-WAVE SPECIFICATION

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

Z-Wave specification		
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 asymetic 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

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

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 Value MUST be set to 0xFE if not position aware.)		Multilevel Switch Report	

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

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

Protection CC			
Type	**State**	**Description**	**Hint**
Local	0	Unprotected – The device is not protected, and may be operated normally via the user interface.	Buttons connected with outputs.
Local	2	No operation possible – button can not change relay state, any other functionality is available (menu).	Buttons disconnected from outputs.
RF	0	Unprotected – The device accept and respond to all RF Commands.	Outputs can be controlled via Z-Wave.
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

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).

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 – The 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 – Is autocalibration successful or 4 – Manual calibration	0 – Roller blind, Awning, Pergola, Curtain	out_bottom (0x0D)
1 – Is 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 a rediscovery procedure
- to update the set of Supported Window Covering Parameter IDs.
- If the controller does not have any capability rediscovery option, it is necessary to re-include the node in the network.

Association Group Information CC

Protection 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 0 x06]	
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

Devices labeled with this symbol should not be disposed of 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

Hereby, NICE SpA Oderzo TV Italia declares that the device complies 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

Documents / Resources

	Nice Roll-Control2 Module Interface [pdf] Instruction Manual Roll-Control2 Module Interface, Roll-Control2, Module Interface, Interface

References

- User Manual