## Roll-Control 2

# Remote control of <br> roller blinds, venetian blinds, pergolas, curtains, awnings <br> and blind motors with electronic or mechanical limit switches 

EN - Instructions and warnings for installation and use

- A CAUTION! - Read this manual before attempting to install the device! Failure to observe 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 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.
- 1 DANGER OF ELECTROCUTION! 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.
- $\AA$ DANGER OF ELECTROCUTION! To avoid risk of electrical shock, do not operate the device with wet or moist hands.
- A 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 or wet 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.
- A CAUTION! - Not a toy! - This product is not a toy. Keep away from children and animals!

The NICE Roll-Control 2 is a device designed to control roller blinds, awnings, venetian blinds, curtains and pergolas.
The NICE Roll-Control 2 allows precise positioning of roller blinds or venetian blind slats. The device is equipped with energy monitoring. It allows to control connected devices either via the Z-Wave ${ }^{\circledR}$ 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 ${ }^{\oplus}$ network Security Modes: S0 with AES-128 encryption and S2 Authenticated with PRNG-based encryption.
- Works as a Z-Wave ${ }^{\circledR}$ signal repeater (all non-battery operated devices within the network will act as repeaters to increase reliability of the network).
- May be used with all devices certified with the Z-Wave Plus ${ }^{\circledR}$ 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-Control 2 operation (monostable, NICE Roll-Control 2 switches).


## Note:

The device is a security enabled Z-Wave Plus ${ }^{\circledR}$ product and a security enabled $Z$-Wave ${ }^{\circledR}$ controller must be used in order to fully utilize the product.

Table A1 - Roll-Control 2 - Specifications

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

## Note:

Radio frequency of individual device must be same as your Z-Wave controller. Check information on the box or consult your dealer if you are not sure.

A 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 in accordance with one of the diagram,
- Install only in flush mounting boxes compliant with a relevant national safety standards and with depth no less than 60 mm ,
- Do not connect heating devices and do not connect SELV or PELV circuits,
- 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 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)
$\mathbf{S 2}$ - terminal for 2nd switch (used to add/remove the device)
$\mathbf{N}$ - terminals for the neutral lead (connected internally)
$\mathbf{L}$ - 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 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 with the following diagram.

Wiring diagram -
connection with AC motor
PE


## NICE Roll-Control 2

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:

To connect external wall switch/external wall switches use supplied jumper wires if necessary.

## Note:

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.

## A CAUTION!

The supplied jumper wires can only be used to connect wall switches.
Conducting the load current of the device and possible connection of other components of the installation (bridging) must be done with the appropriate installation cable. If necessary, use a suitable electrical wires connector.

## ADDING TO Z-WAVE NETWORK

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

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 of the box).
5. Wait for the LED indicator to blink yellow.
6. 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.
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 remove the device from 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 PROG button three times. Optionally, click S1 or S2 three times within 10 minutes of powering up the device.
5. Wait for the removing process to end.
6. Successful removing 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 factory reset.

## GALIBRATION

Calibration is a process during which a device learns about 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 a full automatic movement, between the limit switches (a couple of up/down movements).

## Automatic calibration using the menu

1. Press and hold PROG button to enter the menu.
2. Release button when the device glows blue (1st position).
3. Quickly click the button to confirm.
4. The device will perform the calibration process, completing full cycle - (a couple of up/down movements). 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 full cycle - (a couple of up/down movements). 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 App, you can perform calibration from the wizard or from device settings.

## Note:

You can stop the calibration process at any moment by clicking prog button or external keys.

## Note:

If the calibration is failed, 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 $1\left(90^{\circ}\right)$ or $2\left(180^{\circ}\right)$, depending on the rotation capability of the slats.
2. By default, time of transition between extreme positions is set to 15 ( 1.5 seconds) in parameter 152.
3. Turn slats between extreme positions using $\mathbf{\Delta}$ or $\boldsymbol{\text { switch: }}$

- 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.

The device allows for connecting switch to the S1 and S2 terminals.
These may be monostable or bistable switches.
Switch buttons are responsible for managing the blind's movement.
Description:
A - Switch connected to the S1 terminal
$\boldsymbol{\nabla}$ - Switch connected to the S2 terminal

General tips:

- You can perform/stop movement or change direction using switch/es
- If you set flowerpot protection option the down movement action will perform only to 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:


Table A2 - Roll-Control 2 - Monostable switches - click to move

| Parameter: | 20. |
| :--- | :--- |
| Value: | 0 |


| Parameter: | 151. Roller blind, Awning, Pergola or Curtain |
| :---: | :---: |
| Description: | $1 \times$ click $\boldsymbol{\Delta}$ switch - Initiate up movement to the limit position <br>  Next click - stop <br> $1 \times$ click $\boldsymbol{\nabla}$ switch - Initiate down movement to the limit position <br> $2 \times$ click $\boldsymbol{\Delta}$ or $\boldsymbol{\nabla}$ switch - Favorite position  <br> Hold $\boldsymbol{\Delta}$ - Up movement until release <br> Hold $\boldsymbol{V}$ - Down movement until release |
| Available values: | 0 |


| Parameter: | 151. Venetian blind |  |
| :--- | :--- | :--- |
| Description: | $1 \times$ click $\boldsymbol{\Delta}$ switch - Initiate up movement to the limit position <br> Next click - stop  |  |
|  | $1 \times$ click $\boldsymbol{\nabla}$ switch - Initiate down movement to the limit position <br> $2 \times$ click $\mathbf{\Delta}$ or $\boldsymbol{\nabla}$ switch - Favorite position <br> Hold $\boldsymbol{\Delta}$ - Turning slats up until release <br> Hold $\boldsymbol{\nabla}$ - Turning slats down until release |  |
| Available values: | 1 or 2 |  |

[^0]
## Monostable switches - hold to move

Example of the switch design:


Table A3 - Roll-Control 2 - Monostable switches - hold to move

| Parameter: | $\mathbf{2 0 .}$ |
| :--- | :--- |
| Value: | 1 |


| Parameter: | 151. Roller blind, Awning, Pergola or Curtain |
| :---: | :---: |
| Description: |  |
| Available values: | 0 |


| Parameter: | 151. Venetian blind |  |
| :--- | :--- | :--- |
| Description: | $1 \times$ click $\boldsymbol{\Delta}$ switch | - Slats rotates up by the predefined step |
|  | $1 \times$ click $\boldsymbol{\text { switch }}$ | - Slats rotates down by the predefined step |
| $2 \times$ click $\mathbf{\Delta}$ or $\boldsymbol{\nabla}$ switch | - Favorite position |  |
|  | Hold $\mathbf{\Delta}$ | - Up movement until release |
|  | Hold $\boldsymbol{\nabla}$ | - 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 $1,5 \mathrm{~s}+4 \mathrm{~s}=5,5 \mathrm{~s}$ ) the device will go limit position. In that case releasing the switch will do nothing.

## Single monostable switch

Example of the switch design:
$\square$

## Table A4 - Roll-Control 2 - Single monostable switch

| Parameter: | 20. |
| :--- | :--- |
| Value: | 3 |


| Parameter: | 151. Roller blind, Awning, Pergola or Curtain |  |
| :--- | :--- | :--- |
| Description: | $1 \times$ click | - Initiate movement to the limit position |
|  | One more click - Initiate movement to the opposite limit position <br> $2 \times$ slick - Favorite position |  |
|  | Hold | - Initiate movement until release |
| Available values: | 0 |  |


| Parameter: | 151. Venetian |  |
| :--- | :--- | :--- |
| Description: | $1 \times$ click | - Initiate movement to the limit position <br>  <br>  <br>  <br>  <br>  <br> One more click <br> Oext click - stop <br> 2×click <br> Hold |
| - Favorite movement to the opposite limit position | - Initiate movement until release |  |

Favorite position - available

## Bistabile switches

Example of the switch design:


## Table A5 - Roll-Control 2 - Bistabile switches

| Parameter: | 20. |
| :--- | :--- |
| Value: | 3 |


| Parameter: | 151. Roller blind, Awning, Pergola or Curtain |
| :--- | :--- |
| Description: | $1 \times$ click (circuit closed) <br> Next click on the same <br> same switch (circuit opened) |
| Availate movement to the limit position |  |


| Parameter: | 151. Venetian |
| :--- | :--- |
| Description: | 1×click (circuit closed) <br> Next click on the same - Initiate movement to the limit position <br> same switch (circuit opened) |
| Available values: | 1 or 2 |

## Favorite position - unavailable

## Single bistabile switch

Example of the switch design:


| Parameter: | 151. Roller blind, Awning, Pergola or Curtain |
| :--- | :--- |
| Description: | $1 \times$ click <br> One more click <br> - Initiate movement to the limit position <br> Next click - stop <br> Next movement to the opposite limit position <br> Available values:$\| 0$ |


| Parameter: | 151. Venetian |
| :--- | :--- | :--- |
| Description: | $1 \times$ click <br> One more click <br> - Initiate movement to the limit position <br> - Initiate movement to the opposite limit position <br> Next click - stop <br> Available values: 1 or 2 |

Favorite position - unavailable

Table A7 - Roll-Control 2 - Bistabile switches

| Parameter: | 20. |
| :--- | :--- |
| Value: | 5 |


| Parameter: | 151. Roller blind, Awning, Pergola or Curtain |
| :--- | :--- |
| Description: | $1 \times$ click - Initiate movement to the limit position in the selected <br> direction until the switch selects the stop command |
| Available values: | 0 |


| Parameter: | 151. Venetian |
| :--- | :--- |
| Description: | $1 \times$ click - Initiate movement to the limit position in the selected <br> 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 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 | Device not added to the Z-Wave network |
| Blinking cyan | Update in progress |

## MENU

Menu allows to perform 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 PROG button to enter the menu.
5. Wait for the LED to indicate the desired menu position with colour:

- BLUE (1st position) - autocalibration
- YELLOW (2nd position) - 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.

## 10 RESETTING TO FACTORY DEFAULTS

## Resetting the device 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.

A 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 (menu position).
6. Quickly release and click the PROG button again.
7. During the factory reset, the LED indicator will blink yellow.
8. After few seconds the device will be restarted, which is signaled
with the red LED indicator colour.

## 11 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 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 kilowatthour is equal to one kilowatt of power consumed over period of one hour, $1 \mathrm{kWh}=1000 \mathrm{~Wh}$.

## Resetting consumption memory:

The consumption memory reset can be initiated through the BUI.
The consumption memory reset is likewise carried out, during the resetting to factory defaults procedure.

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 automations by controlling other 4th devices without participation of the main controller (using groups assigned to actions on the device).


## Note.

Commands send to 2nd association group reflect button operation according to device configuration, e.g. starting the blinds movement using button will sendframe 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 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 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 第成.
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.

Table A8 - Roll-Control 8 - 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) |

Table A9-Roll-Control 2 - Operating mode:
Roller blind, Awning, Pergola, Curtain (parameter 151 value = 0)

| Switc <br> Param |  | Switch | Single Click |  | Double Click |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value | Name | S1 or S2 | Command | ID | Command | ID |
| 0 | Monostable switches - click to move |  | Window Covering |  |  |  |
| 1 | Monostable switches - hold to move |  | Start Level Change | Id_Roller | Window Covering | Id_Roller |
| 2 | Single monostable switch |  | Stop Level Change |  |  |  |
| 3 | Bistable switches |  | - | - | - | - |
| 5 | Three-state switch |  | - | - | - | - |


| Switc <br> Param |  | Switch | Hold |  | Release |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value | Name | S1 or S2 | Command | ID | Command | ID |
| 0 | Monostable switches - click to move |  | Window Covering |  |  |  |
| 1 | Monostable switches - hold to move |  | Window Covering | Id_Roller | Stop Level Change | Id_Roller |
| 2 | Single monostable switch |  | Stop Level Change |  |  |  |
| 3 | Bistable switches |  | - | - | - | - |
| 5 | Three-state switch |  | - | - | - | - |


| Switch type <br> Parametr (20) | Switch | Switch state change <br> when roller is not <br> moving |  | Switch state change <br> when roller is not <br> moving |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Value |  | ID | Command | ID |  |  |
| 4 | Single bistable switch |  | ID S2 | Window Covering <br> Start Level Change | Id_Roller | Window Covering <br> Stop Level Change |
| Id_Rollerv |  |  |  |  |  |  |

Table A10-Roll-Control 2 - Operating mode:
Venetian blind $90^{\circ}$ (param 151 = 1) or Venetian blind $180^{\circ}$ (param 151 = 2)

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


| Switch <br> Param |  | Switch | Single Click |  | Double Click |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value | Name | S1 or S2 | Command | ID | Command | ID |
| 0 | Monostable switches - click to move |  | Window Covering | Id_Roller |  | Id_Slat |
| 1 | Monostable switches - hold to move |  | Start Level Change | Id_Slat | Window Covering | Id_Roller |
| 2 | Single monostable switch |  | Stop Level Change | Id_Roller |  | Id_Slat |
| 3 | Bistable switches |  | Window Covering Start Level Change | Id_Roller | Window Covering Stop Level Change | Id_Roller |
| 5 | Three-state switch |  | Window Covering Start Level Change | Id_Roller | Window Covering Stop Level Change | Id_Roller |


| Switch type <br> Parametr (20) | Switch | Switch state change <br> when roller is not <br> moving |  | Switch state change <br> when roller is not <br> moving |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Value |  | ID | Command | ID |  |  |
| 4 | Single bistable switch |  | ID 2 | Window Covering <br> Start Level Change | Id_Roller | Window Covering <br> Stop Level Change |
| Id_Rollerv |  |  |  |  |  |  |

The device allows customizing its operation to 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.
If you are using 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 緰.
2. Go to Devices.
3. Select the relevant device from the list.
4. Select the Advanced or Parameters tab.
5. Select and change parameter.
6. Save your changes.

## Table A11-Roll-Control 2 - Advanced parameters

| Parameter: | 20. Switch type |  |  |
| :--- | :--- | :--- | :--- |
| Description: | This parameter determines with which switches types and in which mode the S1 and S2 inputs <br> operate. |  |  |
| Available settings: | 0 - Monostable switches - click to move <br> 1 - Monostable switches - hold to move <br> 2 |  |  |
|  | - Single monostable switch <br> 3 - Bistable switches <br> 4 - Single bistable switch <br> 5 - Three-state switch |  |  |
| Default setting: | $\mathbf{0}$ (default value) | Parameter size: | $\mathbf{1}$ [byte] |


| Parameter: | 24. Buttons orientation |  |
| :--- | :--- | :--- |
| Description: | This parameter allows reversing the operation of the buttons. |  |
| Available settings: | 0 - default (1st button UP, 2nd button DOWN) <br> 1 - reversed (1st button DOWN, 2nd button UP) |  |
| Default setting: | $\mathbf{0}$ (default value) | Parameter size: |


| Parameter: |  |  |  |
| :--- | :--- | :--- | :--- |
| 25. Outputs orientation |  |  |  |
| Description: | This parameter allows reversing the operation of O1 and O2 without changing the wiring (e.g. in case <br> of invalid motor connection). |  |  |
| Available settings: | 0 - default (O1 - UP, O2 - DOWN) <br> 1 - reversed (O1 - DOWN, O2 - UP) |  |  |
| Default setting: | $\mathbf{0}$ (default value) | Parameter size: | $\mathbf{1}$ [byte] |


| Parameter: | 40. First button - scenes sent |  |  |
| :---: | :---: | :---: | :---: |
| Description: | 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). <br> Enabling scenes for triple click disables entering the device in learn mode by triple clicking. |  |  |
| Available settings: | 0 - No scene active <br> 1 - Key pressed 1 time <br> 2 - Key pressed 2 times <br> 4 - Key pressed 3 times <br> 8 - Key hold down and key released |  |  |
| Default setting: | 15 (All scenes active) | Parameter size: | 1 [byte] |



| Parameter: | $\mathbf{1 5 1 .}$ Operating mode |  |
| :--- | :--- | :--- |
| Description: | This parameter allows you to adjust the operation, depending on the connected device. <br> 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 <br> 1 - Venetian blind $90^{\circ}$ <br> $2-$ Venetian blind $180^{\circ}$ |  |
| Default setting: | $\mathbf{0}$ (default value) | Parameter size: |


| Parameter: | $\mathbf{1 5 2 .}$ Venetian blind - slats full turn time |  |
| :--- | :--- | :--- |
| Description: | For Venetian blinds the parameter determines time of full turn cycle of the slats. <br> The parameter is irrelevant for other modes. |  |
| Available settings: | $0-65535(0-6553.5 \mathrm{~s}$, every 0.1 s$)$ - time of turn |  |
| Default setting: | $\mathbf{1 5}(1.5$ seconds $)$ | Parameter size: |
| $\mathbf{2}$ [byte] |  |  |


| Parameter: | 156. Time of up movement |  |
| :--- | :--- | :--- |
| Description: | This parameter determines the time it takes to reach full opening. <br> The value is set automatically during the calibration process. It should be manually set in case of <br> problems with the autocalibration. |  |
| Available settings: | $0-65535(0-6553.5 \mathrm{~s}$, every 0.1 s$)$ - time of turn |  |
| Default setting: | 600 (60 seconds) | Parameter size: |


| Parameter: | 157. Time of down movement |  |
| :--- | :--- | :--- |
| Description: | This parameter determines the time it takes to reach full closure. <br> The value is set automatically during the calibration process. <br> It should be manually set in case of problems with the autocalibration. |  |
| Available settings: | $0-65535$ (0-6553.5s, every 0.1 s$)$ - time of turn |  |
| Default setting: | $\mathbf{6 0 0}$ (60 seconds) | Parameter size: |
| $\mathbf{2}$ [byte] |  |  |


| Parameter: | $\mathbf{1 5 8 .}$ Virtual limit switch. The pot protection |  |  |
| :--- | :--- | :--- | :--- |
| Description: | This parameter allows you to set a fixed minimum level of lowering the shutter. <br> For example, to protect a flowerpot located on a windowsill. |  |  |
| Available settings: | $0-99$ | Parameter size: | $\mathbf{1}$ [byte] |
| Default setting: | $\mathbf{0}$ (default value) |  |  |


| Parameter: | 159. Favorite position - opening level <br> Description: <br> This parameter allows you to define your favorite aperture level. <br> Available settings:0-99 <br> 0xFF - Functionality disabled |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Default setting: | $\mathbf{5 0}$ (default value) | Parameter size: | $\mathbf{1}$ [byte] |  |


| Parameter: | 160. Favorite position - slat angle |  |
| :--- | :--- | :--- |
| Description: | This parameter allows you to define your favorite position of the slat angle. <br> The parameter is used only for venetian blinds. |  |
| Available settings: | $0-99$ <br> 0xFF - Functionality disabled |  |
| Default setting: | $\mathbf{5 0}$ (default value) | Parameter size: |

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

| Property ID | Description | Values and requirements |
| :---: | :---: | :---: |
| 0x03 | Toggling, On/Off Periods | Starts toggling between ON and OFF <br> Used to set the duration of an On/Off period. <br> Available values: <br> - 0x00 .. 0xFF (0 .. 25.5 seconds) <br> 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. <br> Available values: <br> - 0x00 .. 0xFE (0 .. 254 times) <br> - 0xFF (indicate until stopped) <br> If this is specified, the On/Off Period MUST also be specified. |
| 0x05 | Toggling, <br> On time within an On/Off period | Used to set the length of the On time during an On/Off period. <br> It allows asymetic On/Off periods. <br> Available values <br> - 0x00 (symmetric On/Off period - On time equal to Off time) <br> - 0x01 .. 0xFF (0.1 .. 25.5 seconds) <br> Example: 300 ms ON and 500 ms OFF is achieved by setting On/Off period $(0 \times 03)=0 \times 08$ and On time within an On/Off Period $(0 \times 05)=0 \times 03$ 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 A13-Roll-Control 2 - 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 [0×86] | 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 [0×32] | 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 |

## Table A14-Roll-Control 2 - Basic CC

| Command | Value | Mapping command | Mapping value |
| :--- | :---: | :---: | :---: |
| Basic Set | $[0 x F F]$ | Multilevel Switch Set | $[0 x F F]$ |
| Basic Set | $[0 \times 00]$ | Multilevel Switch Set | Multilevel Switch Set |
| Basic Set | $[0 \times 00]$ to [0x63] | Start Level Change <br> $($ Up/Down $)$ | [0x00], [0x63] |
| Basic Get |  | Multilevel Switch Get |  |
| Basic Report <br> (Current Value and Target Value <br> MUST be set to 0xFE if not position aware.) | Multilevel Switch <br> Report |  |  |

## Notification CC

The device uses Notification Command Class to report different events to the controller ("Lifeline" Group).
Table A15-Roll-Control 2 - Notification CC

| Notification Type | Event / State | Parameter | Status | In endpoints |
| :---: | :---: | :---: | :---: | :---: |
| Power Management [0x08] | Idle [0x00] |  | 0xFF - enable (nonchangeable) | Root |
|  | Over-current detected [0x06] |  |  |  |
| System [0x09] | Idle [0x00] |  |  |  |
|  | System hardware failure with manufacturer proprietary failure code [0x03] | MP code: 0x01 [device overheat] | 0xFF - enable (nonchangeable) | Root |

## Protection CC

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

## Table A16-Roll-Control 2 - Protection CC

| Type | State | Description | Hint |
| :--- | :---: | ---: | :---: |
| Local | 0 | Unprotected - The device is not protected, <br> and may be operated normally via the user interface. | Buttons connected with outputs. |
| Local | 2 | No operation possible - button can not change relay state, <br> 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 <br> other command class will be handled. | Outputs cannot be controlled via Z-Wave. |

## Meter CC

Table A17-Roll-Control 2 - Meter CC

| Meter Type | Scale | Rate Type | Precision | Size |
| :---: | :---: | :---: | :---: | :---: |
| Electric [0×01] | Electric_kWh [0×00] | Import [0×01] | 1 | 4 |

## Altering capabilities

NICE Roll-Control 2 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 A18-Roll-Control 2 - Altering capabilities

| Calibration status (parameter 150) | Operating mode (parameter 151) | Supported Window Covering Parameter IDs |
| :---: | :---: | :---: |
| 0 - Device is not calibrated or <br> 2 - Autocalibration failed | 0 - Roller blind, Awning, Pergola, Curtain | out_bottom (0x0C) |
| 0 - Device is not calibrated or 2 - Autocalibration failed | $\begin{array}{\|l} \hline 1 \text { - Venetian blind } \\ 90^{\circ} \text { or } \\ 2 \text { - Roller blind with } \\ \text { built-in driver } 180^{\circ} \\ \hline \end{array}$ | out_bottom (0x0C) <br> Horizontal slats angle (0x16) |
| 1 - Autocalibration successful or 4 - Manual calibration | 0 - Roller blind, Awning, Pergola, Curtain | out_bottom (0x0D) |
| 1 - Autocalibration successful or <br> 4 - Manual calibration | 1 - Venetian blind $90^{\circ}$ or <br> 2 - Roller blind with built-in driver $180^{\circ}$ | out_bottom (0x0D) <br> Horizontal slats angle (0x17) |

If any of the parameters 150 or 151 changes, the controller should perform rediscovery procedure in order 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

Table A19-Roll-Control 2 - 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 | $\begin{gathered} \text { Control: KEY01 } \\ (0 \times 20: 0 \times 01) \end{gathered}$ | WINDOW_COVERING_SET [0x6A 0x05] | Window Covering |
|  |  | WINDOW_COVERING_START_LVL_ CHANGE [0x6A 0x06] |  |
|  |  | WINDOW_COVERING_STOP_LVL_ CHANGE [0x6A 0x07] |  |

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## 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

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

Nice SpA
Oderzo TV Italia


[^0]:    $\checkmark$ Favorite position - available

