Nice SingleSmart-Control

Turning single electrical devices on or off remotely

 $\ensuremath{\mathsf{EN}}$ - Instructions and warnings for installation and use



CE



WARNINGS AND GENERAL PRECAUTIONS

- A CAUTION! Any use other than that specified herein or in environmental conditions other than those stated in this manual is to be considered improper and is strictly forbidden!
- A CAUTION! Important instructions: keep this manual in a safe place to enable future product maintenance and disposal procedures.
- A CAUTION! Read this manual before attempting to install the device! Carefully read all parts of this manual. If in doubt, suspend installation immediately and contact the Nice Technical Assistance.
- This product is designed for indoor use only. Don't use outside.
- The product packaging materials must be disposed of in full compliance with local regulations.
- Never apply modifications to any part of the device. Operations other than those specified can cause malfunctions. The manufacturer declines all liability for damage caused by makeshift modifications to the product.
- Never place the device near the sources of heat or expose to naked flames. These actions can damage the product and cause malfuntions.
- This product isn't intended for use by people (including children) with reduced physical, sensory or mental capabilities or who lack experience and knowledge, unless they are supervised by a person responsible for their safety.
- This product isn't a toy. Keep away from children and animals!
- The device is designed to operate in an electrical home installation. Faulty connection or use can result in a fire or electric shock.
- Even when the device is turned off, voltage can 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.
- Handle the product with care, don't crush, knock or drop it in order to avoid damage.
- All works on the device can be performed only by a qualified and licensed electrician in complience with national regulations.

2 GENERAL INFORMATION ABOUT NICE Z-Wave® SYSTEM

The NICE SingleSmart-Control is a wireless smart home automation system, based on the Z-Wave® protocol. All the available devices can be controlled using a computer (PC, Mac), smartphone or tablet. Z-Wave® devices can receive and repeat the signal, increasing the Z-Wave® network range. This system gives advantage over traditional wireless systems that require a direct link between transmitter and receiver, in which case the construction of the building can affect the network range negatively.

Every Z-Wave® network has its unique identification number (home ID). Multiple independent networks can exist in the building without interfering. Transmission security of the NICE System is comparable to the wired systems.

Z-Wave® technology is the leading solution in smart home automation. There is a wide range of Z-Wave® devices that are mutually compatible, reagrdless of the manufacturer. It ensures that the system can evolve and expand over time.

For more information visit: www.niceforyou.com.

PRODUCT DESCRIPTION

The remotely operated NICE SingleSmart-Control is designed to turn electrical devices or circuits on and off. SingleSmart-Control enables the control of one device or a circuit.

The compact size of this product enables its installation in the housings of other devices.

The device can be controlled either using the Z-Wave® network or with buttons connected directly to the device.

3.1 - Main features

- The device works with various types of switches and buttons.
- It supports the Z-Wave® network security modes: S0 with AES-128 encryption and S2 Authenticated with PRNG-based encryption.
- It works as a Z-Wave® signal repeater (all non-battery operated devices within the network act as repeaters to increase reliability of the network).
- It can be used with all devices with the Z-Wave Plus® certificate and should be compatible with such devices produced by other manufacturers.

Note

- IEC certification is applicable in the EU countries and in most countries using 220-240 V~.
- UL certification is applicable in the United States and in most countries using 100-120 V~.
- The device is a Security Enabled Z-Wave Plus® product and a Security Enabled Z-Wave® Controller must be used in order to fully utilize the product.

A CAUTION! – Connecting the device in the manner inconsistent with the manual can cause injury, death or material damage.

4.1 - Before installation

- Don't power on the device before assembling it fully in the protected environment.
- Check the operating/maintenance manual to make sure the connection is safe and allowed.
- Connect only as shown in Figure 1 below.
- Always use the same power source for L and IN terminals.
- Don't connect devices which aren't compliant with the specifications or relevant safety standards.
- Don't install the device in metal boxes or on metal surfaces for best radio performance.

4.2 - Electrical connection

- 1. Switch off the mains voltage disable the fuse or the power supply.
- 2. Connect as shown in Figure 1 below.
- 3. Verify if the connection is correct.
- 4. Tighten the terminal screws using PH1 screwdriver.
- 5. If the device is fully assembled, switch on the mains voltage or enable the power supply.
- 6. If the LED indicator lights up, the device is powered.
- 7. Now add the device to the Z-Wave® network (see chapter 5).



Figure 1: Example connection of SingleSmart-Control

- S1 1st button terminal
- **S2** 2nd button terminal
- L live lead terminal
- Q 1st channel output terminal
- N neutral lead terminal
- B service button (used to add/remove the device and navigate the menu)
- 1 device/system housing
- 2 electrical device

5.1 - Adding device to Z-Wave® (Inclusion)

It's the Z-Wave® device learning mode. It enables adding the device to an existing Z-Wave® network.

5.1.1 - Adding device to Z-Wave® manually

- 1. Power on the device.
- 2. Set the main controller in the add mode (Security/Non-Security). See the controller manual.
- 3. Click the button connected to S1/S2 or the maintenance button quickly, three times.
- 4. LED indicator light starts blinking yellow, wait for the adding process to end.
- 5. If you are adding the device in Security S2 Authenticated Mode, enter the underlined part of the DSK (see the label on the bottom of the box).

6. Adding is confirmed by the Z-Wave® controller message and the LED indicator light:

- Green successful (Non-secure, S0, S2 Non-authenticated)
- Magenta successful (Security S2 Authenticated)
- Red failed

5.1.2 - Adding device to Z-Wave® using SmartStart

SmartStart enabled products can be added to a Z-Wave® network by scanning the Z-Wave® QR code on the product with a controller providing SmartStart inclusion. SmartStart product is added automatically within 10 minutes of being switched on in the network range.

To use SmartStart, your controller needs to support Security S2 Mode (see the controller manual).

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

- 1. Enter the full DSK string code into your controller. If possible, scan the QR code placed on the box or the device label. Click the button connected to S1/S2 or the maintenance button quickly, three times.
- 2. Power on the device.
- 3. Wait for the adding process to start (up to few minutes), it starts when the LED indicator light starts blinking yellow.
- 4. Adding is confirmed by the Z-Wave® controller message and the LED indicator light:
 - Green successful (Non-secure, S0, S2 Non-authenticated)
 - Magenta successful (Security S2 Authenticated)
 - Red failed

Note

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

5.2 - Removing device from Z-Wave® (Exclusion)

It's the Z-Wave® device learning mode. It enables removing the device from an existing Z-Wave® network. This also resets the device to factory settings.

A Make sure that restoring the factory settings doesn't damage the connected device. We recommend disconnecting the device first.

To remove the device from the Z-Wave® network:

- 1. Power on the device.
- 2. Set the main controller in the remove mode (see the controller manual).
- 3. Click the maintenance button quickly, three times.
- 4. LED indicator light starts blinking **yellow**, wait for the removing process to end.
- 5. Successful removal is confirmed by the Z-Wave® controller message and red LED indicator light colour.

DEVICE CONFIGURATION AND OPERATION

6.1 - Controlling channels with inputs

- Momentary switch (parameter 20 set to 0): 1 x click – change the channel state to the opposite one.
- Toggle switch without memory (parameter 20 set to 1):
- 1 x switch change the channel state to the state of the switch (OFF if contacts are opened, ON if contacts are closed).
- Toggle switch with memory (parameter 20 set to 2):

1 x switch – change the channel state to the opposite one.

Note

- By default S1 input controls the 1st channel and S2 input controls the 2nd channel if it's available. It can be changed using parameters 24 and 25.
- By default the outputs are set as NO (normally open), meaning that the contacts are opened when turned off and closed when turned on. Using parameters 162/163 it can be switched to NC (normally closed), meaning that the contacts are closed when turned off and opened when turned on.

6.2 - LED indicator lights

The built-in LED indicator light shows the current device status.

6.2.1 - LED indicator lights after powering the device

- Green device added to a Z-Wave® network (Non-secure, S0, S2 Non-authenticated)
- Magenta device added to a Z-Wave® network (Security S2 Authenticated)
- Red device not added to a Z-Wave® network

6.2.2 - LED indicator lights of update

- Blinking cyan update in progress
- Green update successful
- Red update failed

6.2.3 - LED indicator lights of menu

- Blinking green entering the menu (added as Non-secure, S0, S2 Non-authenticated)
- Blinking magenta entering the menu (added as Security S2 Authenticated)
- **Blinking red** entering the menu (not added to a Z-Wave® network)
- Magenta testing Z-Wave® network range
- Yellow resetting to factory settings

6.3 - Menu

Menu allows to perform Z-Wave® network actions. To use the menu:

- 1. Press and hold the maintenance button to enter the menu.
- 2. LED indicator light signals the entering status for 3 seconds (see section 6.2.3 for LED indiator lights of menu), then turns off for another 3 seconds.
- 3. Release the button when device signals the desired position with a specific color (see section 6.2.3 for LED indiator lights of menu).
- 4. Quickly click the button to confirm.

6.4 - Activating scenes

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

By default all actions are activated. Change settings of parameters 40 and 41 to disable scene activation for selected actions.

Table A1 - SingleSmart-Control - Activating scenes				
Switch Action Scene ID		Attribute		
	Switch clicked once 1 Button pressed		Button pressed 1 time	
	Switch clicked twice	1	Button pressed 2 times	
Switch connected	Switch clicked thrice*	1	Button pressed 3 times	
	Switch held**	1	Button held down	
	Switch released**	1	Button released	
	Switch clicked once	2	Button pressed 1 time	
	Switch clicked twice	2	Button pressed 2 times	
Switch connected	Switch clicked thrice*	2	Button pressed 3 times	
	Switch held**	2	Button held down	
	Switch released**	2	Button released	

* Activating triple clicks disallows the removal using this input.

** Not available for toggle switches.

7.1 - Association (linking devices)

Assocations enable:

- Direct control of other devices within the Z-Wave® system network.
- Reporting the device status to the Z-Wave® controller (using Lifeline group).
- Creating simple automations by controlling other devices without the main controller participation (using groups assigned to actions on the device).

Note

Commands send to association groups reflect input operation according to device configuration. For example, turning on the first channel using the button sends the frame responsible for the same action.

7.2 - Association groups mapping

Table A2 - SingleSmart-Control - Association groups mapping				
Root Endpoint Association group in endpoint				
Association Group 2 (On/Off (S1)) Endpoint 1 Association Gr		Association Group 2		
Association Group 3 (On/Off (S2)) Endpoint 1 Association Group 3				

7.3 - Values sent to association groups depending on settings

Values are sent using Basic Command Class.

Values in table A2 below are the default values and they can be adjusted using parameters 156-161.

Table A3 - SingleSmart-Control - Values sent to association groups depending on settings					
Parameter 150/151	Parameter 152/153	Click	Double Click		
Momer	Momentary or toggle switches with memory (parameter 20/21 set to 0 or 2)				
0, 1 or 3	_	255 (ON) if turned OFF 0 (OFF) if turned ON	99 (max)		
2	0 or 1	255 (ON) if turned OFF 0 (OFF) during countdown	99 (max)		
	2	255 (ON)	99 (max)		
Toggle switches without memory (parameter 20/21 set to 1)					
_	_	255 (ON) if turned OFF 0 (OFF) if turned ON	99 (max)		

8.1 - Z-Wave® range test

The device has a built in Z-Wave® network main controller range tester.

Note

To perform a Z-Wave® range test, the device needs to be added to the Z-Wave® controller. Testing is recommended only in special cases, as it can stress the network.

8.2 - Main controller range test

- 1. Press and hold the maintenance button to enter the menu.
- 2. Release the button when the LED indicator light glows in magenta.
- 3. Quickly click the button to confirm.
- 4. Visual indicator indicates the Z-Wave® network range (range signaling modes are described in section 6.6.2 below).
- 5. To exit the Z-Wave® range test, press the button briefly.

8.3 - Z-Wave® range tester signaling modes

Table A4 - SingleSmart-Control - Z-Wave® range tester signaling modes			
Color	Status	Description	
Green		The device attempts to establish a direct communication with the main controller. If such attempt fails, the device tries to establish a routed communication through other modules, which is sig- naled by the LED indicator light pulsing yellow .	
	Glowing	The device communicates with the main controller directly.	
	Pulsing	The device tries to establish a routed communication with the main controller through other modules (repeaters).	
Yellow	Glowing	The device communicates with the main controller through other modules. After 2 seconds the device retries to establish a direct communication with the main controller, which is signaled by LED indicator light pulsing green .	
Violet	Pulsing	The device communicates at the maximum distance of the Z-Wave® network. If connection proves successful it's confirmed with the LED indicator light glowing yellow . It's not recommended to use the device at the range limit.	
Red	Glowing	The device isn't able to connect to the main controller directly or through another Z-Wave® nework device (repeater).	

Note

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

FACTORY SETTINGS RESET

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

A Make sure that restoring the factory settings doesn't damage the connected device. We recommend disconnecting the device first.

Note

Resetting the device isn't the recommended way of removing the device from the Z-Wave® network. Use reset procedure only if the primary controller is missing or inoperable.

To remove the device:

- 1. Press and hold the maintenance button to enter the menu.
- 2. Release the button when the LED indicator light glows $\ensuremath{\textbf{yellow}}.$
- 3. Quickly click the button to confirm.
- 4. After a few seconds the device is restarted, which is signaled with $\ensuremath{\text{red}}$ LED indicator light.

The device operation can be customized using the configurable parameters.

The settings can be adjusted through the Z-Wave® controller to which the device is added. The way of adjusting settings might differ depending on the controller.

In this interface the parameters are presented as simple options in Advanced Settings of the device.

Table A5 - SingleSmart-Control - Advanced parameters				
Parameter	Description	Available setting	Default setting	Parameter size
1. Remember relays state	This parameter determines the state of relays after power supply failure, such as power outage. The parameter isn't relevant for Auto OFF and Flashing modes.The relay always remains switched off.	 0 - relays remain switched off after restoring power 1 - restore remembered state of relays after restoring power 2 - restore remembered state of relays after restoring power, but for toggle switches (parameter 20/21 set to 1) set the same state as the current state of the switches 	1 (restore the state)	1 [byte]
20. S1 input – switch type	20. S1 input – switch typeThis parameter defines the type as which the device should treat the switch connected to the S1 terminal.0 – momentary switch 1 – toggle switch synchronized (contact closed - ON, contact opened - OFF) 2 – toggle switch with memory (device changes status when switch changes status)		0 (momentary switch)	1 [byte]
21. S2 input – switch type	This parameter defines the type as which the device should treat the switch connected to the S2 terminal.	 0 - momentary switch 1 - toggle switch synchronized (contact closed - ON, contact opened - OFF) 2 - toggle switch with memory (device changes status when switch changes status) 	0 (momentary switch)	1 [byte]
24. Inputs orientation	This parameter allows reversing the operation of S1 and S2 inputs without changing the wiring. Use in case of incorrect wiring.	 0 - default (S1 - 1st channel, S2 - 2nd channel) 1 - reversed (S1 - 2nd channel, S2 - 1st channel) 	0 (default)	1 [byte]
30. Alarm configuration - 1 st slot	This parameter determines which alarm frames the device should react to and how. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave® protocol specification.	 1B [MSB] – Notification Type 2B – Notification Status 3B – Event/State Parameters 4B [LSB] – action: 0x00 – no action 0x01 – turn ON 0x02 – turn OFF 0x03 – turn ON/OFF continuously 	[0x00, 0x00, 0x00, 0x00] (disabled)	4 [bytes]
31. Alarm configuration - 2 nd slot	This parameter determines which alarm frames the device should react to and how. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave® protocol specification.	 1B [MSB] – Notification Type 2B – Notification Status 3B – Event/State Parameters 4B [LSB] – action: 0x00 – no action 0x01 – turn ON 0x02 – turn OFF 0x03 – turn ON/OFF continuously 	[0x05, 0xFF, 0x00, 0x00] (Water Alarm, any notifica- tion, no action)	4 [bytes]
32. Alarm configuration - 3 rd slot	This parameter determines which alarm frames the device should react to and how. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave® protocol specification.	 1B [MSB] – Notification Type 2B – Notification Status 3B – Event/State Parameters 4B [LSB] – action: 0x00 – no action 0x01 – turn ON, 0x02 – turn OFF, 0x03 – turn ON/OFF continuously 	[0x01, 0xFF, 0x00, 0x00] (Smoke Alarm, any notifica- tion, no action)	4 [bytes]
33. Alarm configuration - 4 th slot	This parameter determines which alarm frames the device should react to and how. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave® protocol specification.	 1B [MSB] – Notification Type 2B – Notification Status 3B – Event/State Parameters 4B [LSB] – action: 0x00 – no action, 0x01 – turn ON, 0x02 – turn OFF, 0x03 – turn ON/OFF continuously 	[0x02, 0xFF, 0x00, 0x00] (CO Alarm, any notifica- tion, no action)	4 [bytes]
34. Alarm configuration - 5 th slot	This parameter determines which alarm frames the device should react to and how. The parameters consist of 4 bytes, three most significant bytes are set according to the official Z-Wave® protocol specification.	 1B [MSB] – Notification Type 2B – Notification Status 3B – Event/State Parameters 4B [LSB] – action: 0x00 – no action 0x01 – turn ON, 0x02 – turn OFF 0x03 – turn ON/OFF continuously 	[0x04, 0xFF, 0x00, 0x00] (Heat Alarm, any notifica- tion, no action)	4 [bytes]

Table A5 - SingleSmart-Control - Advanced parameters				
Parameter	Description	Available setting	Default	Parameter
35. Alarm configura- tion – duration	This parameter defines the duration of an alarm sequence. When time set in this parameter passes, the alarm is cancelled and relays restore normal operation, but don't recover the state from before the alarm.	0 – infinite 1-32400 (1s-9h, 1s step) – duration	600 (10min)	4 [bytes]
40. S1 input – scenes sent	This parameter determines which actions result in sending the scene IDs assigned to them. Values can be combined. Example: 1+2=3 means that scenes for single and double click are sent. Enabling scenes for triple click disables the setting of entering the device in learning mode by triple click.	 0 - no scenes sent 1 - button pressed 1 time 2 - button pressed 2 times 4 - button pressed 3 times 8 - button held down and released 	15 (all active)	1 [byte]
41. S2 input – scenes sent	Dut – Example: 1+2=3 means that scenes for single and double click are sent. Enabling scenes for triple click disables the setting of entering the device in learning mode by triple click. 0 – no scenes sent 1 – button pressed 1 time 2 – button pressed 2 times 4 – button pressed 3 times 8 – button held down and released		15 (all active)	1 [byte]
150. First channel – operating mode	This parameter enables choosing operating mode for channel con- trolled with thQ output. For timed modes (value 1, 2 or 3), time is set using parameter 154 and reaction to input change is set using param- eter 152.	 0 - standard operation 1 - delayed OFF 2 - auto OFF 3 - flashing 	0 (standard operation)	1 [byte]
152. First channel – reaction to input change in delayed/ auto OFF modes	This parameter determines how the device reacts to changing the state of S1 input in timed modes for the first channel.	 0 - cancels mode and sets default state 1 - no reaction, mode runs until it ends 2 - reset timer, starts counting time from the beginning 	0 (cancel mode)	1 [byte]
154. First channel – time parameter for delayed/auto OFF and flashing modes	This parameter enables setting the time parameter used in timed modes for the first channel. For de- layed/auto OFF modes it determines the duration, for flashing mode it determines the cycle period.	0 – 0.1 seconds 1-32000 – 0.1-3200 seconds, in 0.1 s steps	5 (0.5 s)	2 [bytes]
156. S1 input – Switch ON value sent to 2 nd associa- tion group	This parameter defines the value sent with Switch ON command to devices in the 2 nd association group when using S1 input.	0 – turn off 1-99 – turn on and set level 255 – turn on with last level	255	2 [bytes]
157. S1 input – Switch OFF value sent to 2 nd associa- tion group	This parameter defines the value sent with Switch OFF command to devices in the 2 nd association group when using S1 input.	0 – turn off 1-99 – turn on and set level 255 – turn on with last level	0	2 [bytes]
158. S1 input – Double Click value sent to 2 nd associa- tion group	This parameter defines the value sent with Double Click command to devices in the 2 nd association group when using S1 input.	0 – turn off 1-99 – turn on and set level 255 – turn on with last level	99	2 [bytes]
162. Q output type	This parameter determines type of Q output.	 0 – Normally Open (relay contacts are opened when turned off and closed when turned on) 1 – Normally Closed (relay contacts are closed when turned off and opened when turned on) 	0 (Normally Open)	1 [byte]

11.1 - Z-Wave® specifications

- Generic device class: GENERIC_TYPE_SWITCH_BINARY
- Specific device class: SPECIFIC_TYPE_POWER_SWITCH_BINARY
- **Supported command classes** can be found in table A5 below.

Table A6 - SingleSmart-Control - Z-Wave® supported command classes			
Command Class	Version	Secure	
COMMAND_CLASS_ZWAVEPLUS_INFO [0x5E]	V2		
COMMAND_CLASS_SWITCH_BINARY [0x25]	V1	YES	
COMMAND_CLASS_ASSOCIATION [0x85]	V2	YES	
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION [0x8E]	V3	YES	
COMMAND_CLASS_ASSOCIATION_GRP_INFO [0x59]	V2	YES	
COMMAND_CLASS_TRANSPORT_SERVICE [0x55]	V2		
COMMAND_CLASS_VERSION [0x86]	V2	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_CONFIGURATION [0x70]	V1	YES	
COMMAND_CLASS_CRC_16_ENCAP [0x56]	V1		
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]	V4	YES	
COMMAND_CLASS_APPLICATION_STATUS [0x22]	V1		
COMMAND_CLASS_SUPERVISION [0x6C]	V1	YES	
COMMAND_CLASS_BASIC [0x20]	V1	YES	

11.2 - Notification command class

The device uses Notification Command Class to report different events to the controller using the Lifeline group (only in Root / Endpoint 1).

Table A7 - SingleSmart-Control - Notification Command Class				
Notification Type	Event	Parameter	Status	
System [0x09]	Heartbeat (Notification CC V5) [0x05]	_	0xFF – enable (non-changeable)	

11.3 - Protection Command Class

Protection Command Class enables preventing local or remote control of the outputs.

Table A8 - SingleSmart-Control - Protection Command Class				
Туре	State	Description	Hint	
Local	0	Unprotected – the device isn't protected and can be operated normally by the user interface.	Inputs connected with outputs.	
Local	2	No operation possible – button can't change relay state, any other functionality is available (menu and Central Scenes Notification).	Inputs disconnected from outputs.	
Local	0	Unprotected – the device accepts and responds to all RF commands.	Outputs can be controlled by Z-Wave®.	
Local	1	No RF control – command class basic and switch binary are rejected, every other command class is handled.	Outputs can't be controlled by Z-Wave®.	

Table A9 - SingleSmart-Control - Technical Specifications		
Feature	Description	
Power Supply	100-240 V~ 50/60 Hz or 24-30 V	
Rated Load Current	6.5 A	
Compatible Load Types	resistive or incandescent only	
Active Element	micro-gap relay µ	
Maximum Wire Length	3 m	
Recommended Wire Cross-section Area	0.2–2.0 mm ² (24–14 AWG) (depending on load current)	
Operating Temperature	0–35°C	
Ambient Humidity	0–95% RH without condensation	
Radio Protocol	Z-Wave® (500 series chip)	
Radio Frequency Band	868.0–868.6 MHz; 869.7–870.0 MHz	
Max. Transmitting Power	+5 dBm	
Range	up to 50 m outdoors up to 40 m indoors (depending on terrain and building structure)	
Dimensions (height x width x depth)	42.5 x 38.25 x 20.3 mm	
Classification of Installation and Use	automatic electrical control for use in household equipment or similar	
Mode of Operation	type 1.B action	
Pollution Degree	2	
Software Class	Class A	
Compliance with	2011/65/EU 2015/863	
EU Directives	2014/53/EU	

Note

Radio frequency of an individual device must be same as of the Z-Wave® controller. If in doubt, check information on the box or consult your dealer.

3 PRODUCT DISPOSAL

This product is an integral part of the automation and therefore must be disposed together with the latter.

At the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel. This product is made of various types of material, some of which can be recycled while others must be scrapped. Seek information on the recycling and disposal systems envisaged by the local regulations in your area for this product category.

A CAUTION! – Some parts of the product can contain pollutant or hazardous substances which, if disposed of into the environment, can cause serious damage to the environment or physical health.

As indicated by the symbol alongside, disposal of this product in domestic waste is strictly prohibited. Separate the waste into categories for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing a new version.

A CAUTION! – Local legislation can envisage serious fines in the event of abusive disposal of this product.

|4| declaration of conformity

Hereby, NICE S.p.A., declares that the radio equipment SingleSmart-Control is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: https://www.niceforyou.com/en/professional-area/ download?st=7&v=18 under the **download** section.





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