



# Magistro ROLL

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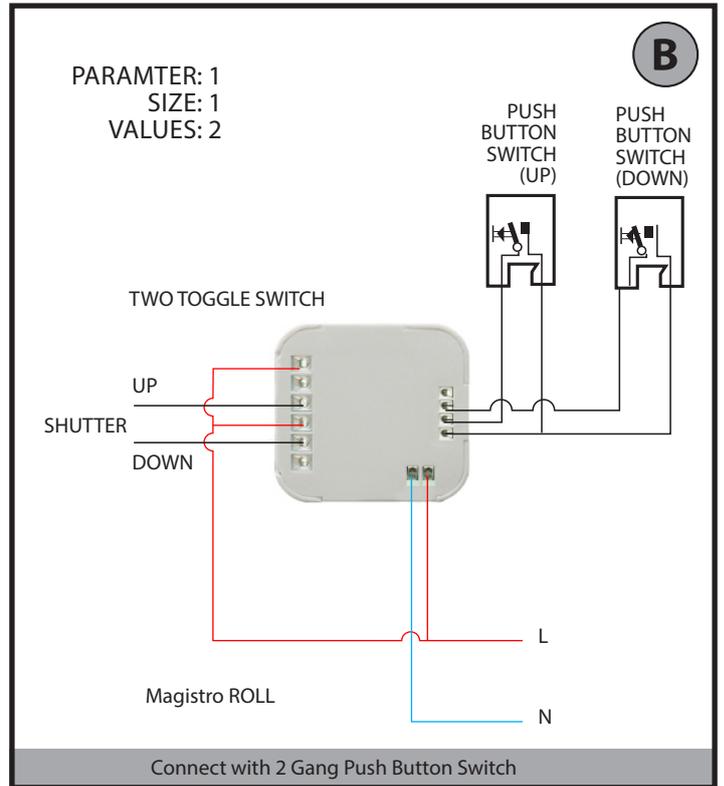
Z-WAVE NODE FOR SHUTTERS



## QUICK GUIDE



AZIENDA CON SISTEMA DI GESTIONE INTEGRATO CERTIFICATO DA DNV = UNI EN ISO 9001:2000 = UNI EN ISO 14001:2004



### TECHNICAL SPECS

Normal operating voltage	250V ~ a.c. 50Hz
Maximum load	1.8 HP
Frequency range	868.42MHz
Wireless Range	Up to 30m line of sight

### Basic Operations

- The Magistro ROLL can be remotely controlled.
- The Magistro ROLL can be add/remove from the network by pressing the push button on the front of the device, or by external switch
- The Magistro ROLL's indicator light will indicate the status of the Magistro ROLL.

### Mounting

1. Turn OFF power by switching off the circuit breaker or removing the fuse and test that power is off before wiring!

2. Ensure Magistro ROLL capacity matches the load requirements.
3. Wall Installation: Connect it with your existing external switch, default is two buttons with neutral position switch. Please see below Wiring Diagrams & Configuration Parameters.
4. Reapply power to the circuit at fuse box or circuit breaker to test the system carefully, if the indicator light on Magistro ROLL blinks 30 seconds and then keep breathing, it means the installation is in good condition.
5. Turn OFF the power again.
6. For Wall Installation: Insert your external switch together with Magistro ROLL into switch box being careful not to pinch or crush wires, and secure it with screws. Reapply power to the circuit at fuse box or circuit breaker.

**Maximum load:**  
250V ~ a.c. 50Hz, 1.8HP

Wall Installation Wiring Diagram, connect with external switch: (see Figure B)  
Please note: **A 6A external fuse before the red wire Live of the Magistro ROLL switch must be installed** in the installation for protect the Magistro ROLL switch

overload. (see Figure B) Red wire refers to Live IN, blue wire refers to Neutral, and black wire refers to connecting with switch/ a.c. motor.

### Network Wide Inclusion

When the Magistro ROLL is not yet included in a Z-Wave network, NWI will be started automatically for 30 seconds when the Magistro ROLL is power ON. Make sure your Z-Wave controller is in the correct operating mode (inclusion).

### Normal include or exclude

Make sure your Z-wave controller is in right operation mode Press it, very fast, 3 times, switch UP or DOWN or press and hold the push button on the Magistro Roll for 1 second and release to start the inclusion or exclusion process.

### Manual control

Connect the terminal block COM,KEY1,KEY2 with your existing external switch, as per the wiring diagram. Push/rotate the switch to control with UP / DOWN function of the a.c. motor.

### Remote control

The Magistro ROLL can be remote controlled by several Z-Wave controllers or devices.

### Indication modes

The indicator gives various statuses of the device as follows:

1. Automatically add: blinks 30 seconds.
2. Ready for learn mode: Indicator light Breathing.
3. Learn in progress (add): Indicator light blinks 1 time.
4. Learn in progress (remove): Indicator light blinks 1 second (8 times).
5. Learn mode success: Indicator light is on for 1 time. (and then if load is on, indicator light keep on; if load is off, indicator light keep breathing)
6. Learn mode failed: Indicator light blinks fast.

## TECHNICAL MANUAL

### Caution:

- This device is using a radio signal that passes through walls, windows and doors. The range is strongly influenced by local conditions such as large metal objects, house wiring, concrete, furniture, refrigerators, microwaves and similar items. On average, the indoor range is approximately 30 meters.
- Do not expose this product to excessive heat or moisture.
- Prevent long term exposure to direct sunlight.
- Do not attempt to repair this product. If the product is damaged or if you are in doubt about the proper operation, take the product back to the place of purchase.
- Do not clean the product with any liquid.

Normal operating voltage	250V ~ a.c. 50Hz
Maximum load	1.8HP
Frequency range	868.42MHz
Wireless Range	Up to 30m line of sight
Storage temperature	-5 ° C to +65 ° C
Storage humidity	10% to 70%
Operating temperature	0 ° C to 50 ° C
Operating humidity:	30% to 80%

### Technical details

### ROUTING SLAVE

This Z-Wave product will be used as slave. Slave nodes are nodes in a Z-Wave network that receive commands and perform actions based on the command. A routing slave can route Z-Wave messages to other nodes in the network. This device is always awake and does not go to sleep mode because it is an AC powered device. This device can act as a wireless repeater to forward commands for another device in the Z-Wave network to expand the range of the network. This function works for every Z-Wave device from any manufacturer when included into the same Z-Wave network.

Unlike a normal slave a routing slave can store a number of static routes which he uses to send a routed rf frame to another node.

### Include Initiator

The include initiator is used when Primary and Inclusion Controllers include nodes into the network. When both the include initiator have been activated simultaneously the new node will be included to the network (if the node was not included previously).

### Exclude Initiator

The exclude initiator is used by Primary Controllers to exclude nodes from the network. When the exclude initiator and a slave initiator are activated simultaneously, it will result in the slave being excluded from the network (and reset to Node ID zero). Even if the slave was not part of the network it will still be reset by this action.

### Z-Wave compatibility

Because this is a Z-Wave device, it means it can co-operate with other Z-Wave devices of other manufacturers. It can co-exist in a Z-Wave network existing with product from other manufacturers.

### Hops & Retries

The Z-Wave range has a range of up to 30 meters in line of sight. This signal is not limited to the 30 meter range due to routing the Z-Wave message to other nodes in the network. This way the range of the Z-Wave network can be expanded to 150 meters indoors (limit of 4 hops).

### Supporting Command Classes

Basic Class: Slave with routing capabilities

Generic Class: Multilevel Switch

Specific Class: Motor Control Class C

```
class:0x27 COMMAND_CLASS_All_Switch
class:0x8E COMMAND_CLASS_Multi_Channel_Association
class:0x70 COMMAND_CLASS_Configuration
class:0x72 COMMAND_CLASS_Manufacturer_Specific
class:0x75 COMMAND_CLASS_Protection
class:0x77 COMMAND_CLASS_Node_Naming_and_Location
class:0x86 COMMAND_CLASS_Version
class:0x25 COMMAND_CLASS_Binary_Switch
class:0x20 COMMAND_CLASS_Basic
class:0x26 COMMAND_CLASS_Multilevel_Switch
class:0x87 COMMAND_CLASS_Indicator
class:0x85 COMMAND_CLASS_Association
class:0x2B COMMAND_CLASS_Scene_Activation
class:0x2C COMMAND_CLASS_Scene_Actuator_Configuration
```

## CONFIGURATION PARAMETERS

### PARAMTER

No.	1	Size 1	Default 3
<b>Name</b>	Buttons mode		
<b>Description</b>	One push button: One button is used (chose any), press while moving up and down stops, while stopped moves to opposite direction to previous. // Two buttons with neutral position: Up click moves up if stopped and stops if moving down, Down click moves down if stopped and stops if moving up, Hold Up/Down moves in up/down, Release stops. // Two toggle switch: Switch to Up/Down moves up/down. // Two paddles with Power and Direction: Hold Up button to move blinds up. If Down button is pressed, blinds will move down. Release Up button to stop.		
<b>Type</b>	rangemapped		
<b>Values</b>	0 -> One push button 1 -> Two paddles with Power and Direction 2 -> Two toggle switch 3 -> Two buttons with neutral position		

### PARAMTER

No.	7	Size 1	Default 1
<b>Name</b>	LED mode		
<b>Description</b>	Set LED indication mode		
<b>Type</b>	rangemapped		
<b>Values</b>	0 -> Allways on 1 -> Show working state 2 -> Disabled 3 -> Show opened state 4 -> Indicator Command Class		

### PARAMTER

No.	2	Size 2	Default 0
<b>Name</b>	Automatically close after		
<b>Description</b>	If not zero, automatically close blind after a user defined time		
<b>Type</b>	range		
<b>Values</b>	0 -> Disabled 1 - -1 -> sec		

### PARAMTER

No.	3	Size 1	Default 0
<b>Name</b>	What to do on RF close command		
<b>Description</b>	Defines how to interpret RFOff command. Can be used in conjunction with Auto Close function: Ignore - to open the door by motion detectors and close it back after some amount of time: in case of multiple motion detectors each would try to open that would break logics; Open - to open on both On and Off paddle press on the remote and close after some amount of time. Button close click will still work (if button operations are not disabled). Note that Dim Down command will still begin close motion.		
<b>Type</b>	rangemapped		
<b>Values</b>	0 -> Close 1 -> Ignore 2 -> Open 3 -> Open if closed, otherwise Close		

### PARAMTER

No.	10	Size 1	Default 60
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**Name** Full close time  
**Description** Time to go from opened to closed state. Used to estimate the current Level. Note that in Permanent motion mode the reported value would a be Closed or Opened, while all Basic and Multilevel Set values (1-99, 255) would Open except 0 value that would Close.  
**Type** range  
**Values** 0 -> Keep in permanent motion  
 1 - -1 -> seconds

**PARAMTER**  
**No.** 11 **Size 1** **Default 60**  
**Name** Full open time  
**Description** Time to go from closed to open state. This value may differ from Full close time for some blinds due to gravity. Used to estimate the current level. Note that in Permanent motion mode the reported value would a be Closed or Opened, while all Basic and Multilevel Set values (1-99, 255) would Open except 0 value that would Close.  
**Type** range  
**Values** 0 -> Keep in permanent motion  
 1 - -1 -> seconds

**PARAMTER**  
**No.** 12 **Size 1** **Default 0**  
**Name** Node Id of the blocking device  
**Description** Id of the device which commands would be interpreted not as Open/Close, but as block/unblock. Usefull with door opening detector: if the door is open, block the blind not to break shades while they move.  
**Type** range  
**Values** 0 -> Disabled  
 1 - -24 -> Node Id

**PARAMTER**  
**No.** 13 **Size 1** **Default 0**  
**Name** On which command from blocking node to enable the protection  
**Description** Defines which command from blocking device to interpret as closed door and hence, unprotected.  
**Type** rangemapped  
**Values** 0 -> on On  
 1 -> on Off

**PARAMTER**  
**No.** 14 **Size 1** **Default 0**  
**Name** Invert open and close relays  
**Description** Allow exchanging open and close relays if blind control is wired to the motor incorrectly  
**Type** angemapped  
**Values** 0 -> No  
 1 -> Yes

**PARAMTER**  
**No.** 4 **Size 1** **Default 50**  
**Name** Typical click timeout  
**Description** Typical time used to differentiate click, hold, double and triple clicks  
**Type** range  
**Values** 1 - 100 -> in 10ms units

**PARAMTER**  
**No.** 5 **Size 1** **Default 0**  
**Name** Invert buttons  
**Description** rangemapped  
**Type** rangemapped  
**Values** 0 -> No  
 1 -> Yes

**PARAMTER**  
**No.** 6 **Size 1** **Default 1**  
**Name** Action on button press or hold  
**Description** Defines which command should be sent to Association group on button press or hold. Scene mode will send 1 for Up event, 2 for Stop, 3 for Down.  
**Type** rangemapped  
**Values** 1 -> Switch On, Off and dim using Basic Set and MultiLevel Start/Stop Changing  
 2 -> Send Scene

Association Groups			
Group	Number	Max Nodes	Description
1	10		Click, press and hold of up/down buttons
2	10		Send Reports on blind state change

**Configuration Reset**  
 The Magistro ROLL Supports a configuration resets function. Configuration reset means All configuration values are defaulted.

This function can be activated by sending a configuration set frame.

**Troubleshooting**  
**Frequently Asked Questions**

- Q: Why does the push button on the switch not work?  
 A: Check if the Magistro ROLL is completely wiring.  
 Q: I can't have my Magistro ROLL included into my Z-Wave network, what am I doing wrong?  
 A: 1. Is the controller ready to include any device into the Z-Wave network? If the controller is not in Include or exclude mode, the Magistro ROLL cannot be included or excluded.  
 2. The Magistro ROLL is already included into a Z-Wave network. Exclude this Magistro ROLL and try to include it again.  
 Q: Why does the indicator light not work?  
 A: Check if the Magistro ROLL is fully wiring. The indicator light will not work if there is no power supplied to the Magistro ROLL.

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