Thank you for choosing the built-in motor actuator, the device that allows you to automate all devices that require a phase inversion such as, for example, awnings, rolling shutters and roller shutters. Z-Wave certified, the actuator is compatible with the gateway of the MyVirtuoso Home home automation system.



www.myvirtuosohome.com www.smartdhome.com



## **Description and Technical Specifications**

The built-in motor actuator connects to existing motorized accessories in the house, such as skylights, roller shutters, awnings or shutters, making them controllable and automatable via the Z-Wave gateway (MyVirtuoso Home). It can be quickly installed by connecting it directly to the motor or to any wall switch that controls it.



## **Technical specifications**

- Protocol: Z-Wave.
- Transmission frequency: 868.42 MHz.
- Signal range: 30 m in open field.
- Power supply: 120 to 240 Vac mains.
- Maximum amperage value: 2.5 A for each slot, 5 A for both slots.
- Use of the device: internal.

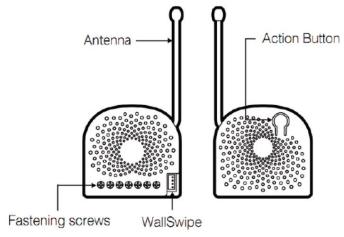
## **Package Contents**

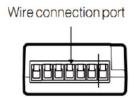
- · Built-in motor actuator.
- Instruction manual.

### Installation

Thanks to these guidelines you will be able to correctly install the device and relatively connect it to a Z-Wave network.

**WARNING!** The built-in motor actuator works only when installed on a neutral cable. If neutral cables are not available, the intervention of a qualified electrician will be required for on-site installation



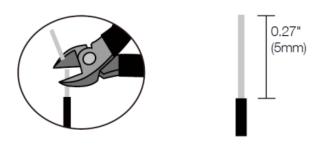


1) Turn off the main switch of the house during installation and make sure that the cables have not suffered a short circuit previously. Failure to check could damage the device.

**Warning!** For greater safety, the main domestic switch must support overload protection.

- 2) Remove and disconnect from the wall the main switch behind which the actuator will be installed.
  - a. Make sure not to short-circuit the cables during installation, it could cause damage to the actuator.
  - b. Make sure that the box in which it will be installed measures at least 75x50x70mm; the minimum volume is 230cm3.
- 3) Prepare the connection cables. Use only flexible copper cables.
  - 14 AWG power cables for input / output.
  - 18 AWG copper cables for the external manual switch.

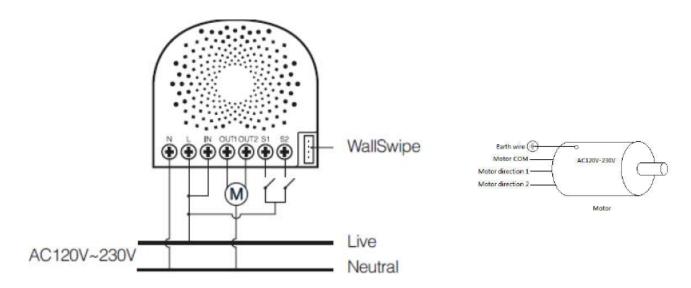
• Use a wire stripper to expose 5mm of wire.



Cut wire if neccessary

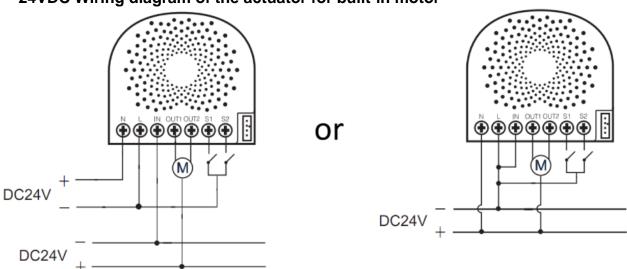
Strip Gage (measure barehere)

## 120-230 VAC Wiring diagram of the actuator for built-in motor



- N Power input for the Neutral
- L Power input for the Phase
- IN Input for charging power supply
- OUT1 Motor 1 direction output
- OUT2 Output for motor 2 direction
- S1 External control switch / button 1 for motor
- S2 External control switch / button 2 for motor

24VDC Wiring diagram of the actuator for built-in motor

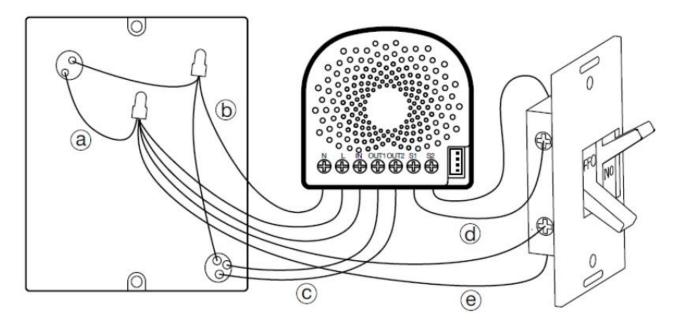


- N Power input for + 24VDC
- L Power input for -24VDC
- IN Input for -24VDC load power supply.
- OUT1 Motor 1 direction output.
- OUT2 Output for motor 2 direction.
- S1 External switch 1 control for motor. (use -24VDC)
- S2 External switch 2 control for motor. (use -24VDC)
- 4) Install the actuator in the junction box:
  - a. Connection via Phase cable: Connect the Phase cable to the L end of the actuator.
  - b. Connecting the Neutral cable: Connect the Neutral cable to the N terminal of the actuator.
  - c. Connection of the load cables (to actuator for built-in motor): connect the 2 motor cables (direction motor 1 and direction motor 2) to "OUT1" and "OUT2" on the actuator for built-in motor.
  - d. Connecting the load cables: connect the Neutral cable to the "Neutral" terminal of the motor.

## Built-in motor actuator

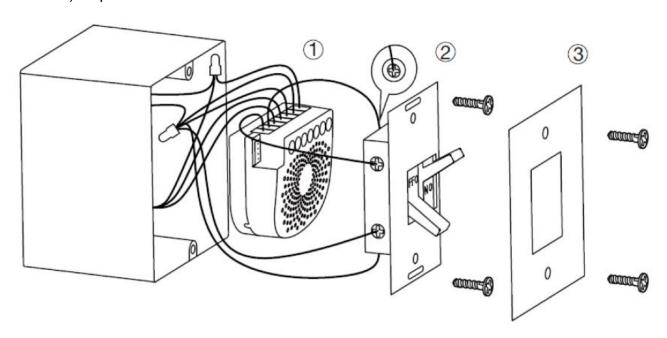
User Manual

- e. External switch connection: connect 2 18AWG cables to "S1" and "S2" on the built-in motor actuator.
- f. External switch connection: connect 2 18AWG cables from the 2 terminals of the external switch to the Phase "L" cable.



**Note**: this is the physical connection diagram for the 120/230 VAC power supply. Once the operation is complete, the actuator will be connected as shown in the image above.

- 5) Mounting the junction box:
  - a) Organize all cables to provide space for the device.
  - b) Position the actuator well inside the box with the antenna towards the back of the box and away from the other wires.
  - c) Replace the box lid.



6) Restore the electricity supply through the switch or fuse.

### Inclusion

**Note:** it is possible to change the actuator control mode. In fact, it can also be controlled via an external switch / button.

Before starting the procedure for including the device in a Z-Wave network, check that it is turned on, then make sure that the MyVirtuoso Home gateway is in inclusion mode (refer to the relevant manual available on the website www.myvirtuosohome.com/downloads).

1. Press the external button connected to the actuator once. Alternatively, if the device is still exposed, press the button on the back of the device 1 time to make it enter into embed mode. The LED turns blue.



Pulsante di abbinamento

2. The flush-mounted motor actuator will be successfully associated with the Z-Wave network if the LED remains on. If the LED lights up red for 2 seconds and then alternates a series of colors, the device has not been able to connect to the network, have the application complete the inclusion process and repeat the procedure from point 1.

### **Esclusion**

Before starting the procedure for excluding the device in a Z-Wave network, check that it is switched on, then make sure that the MyVirtuoso Home gateway is in exclusion mode (refer to the relative manual available on the website <a href="https://www.myvirtuosohome.com/downloads">www.myvirtuosohome.com/downloads</a>).

1. Press the pairing button 6 times within 2 seconds.



Pulsante di abbinamento

## Built-in motor actuator

User Manual

2. If the recessed motor actuator has been removed successfully, the LED will remain gradient colored. If the removal was not successful, the LED will remain steady (following the status of the output load). Repeat the instructions from step 1.

### Reset

Should it be necessary to reset the device, follow the instructions below:

1. Press the pairing button on the back of the actuator for 20 seconds, then release it.

The built-in motor actuator will begin the reset phase to the factory settings and, upon successful completion, the LED will remain steady for 2 seconds and will turn a gradient as confirmation.

## **Settings**

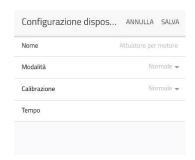
The possible configurations of the built-in motor actuator must necessarily be made through the MyVirtuoso Home application. Therefore, before carrying out the operation, you must have installed the MyVirtuoso Home ES application (available on Google Play and Apple Store) on your smartphone or tablet.

After logging in and including the device in the Z-Wave MyVirtuoso Home network, follow the steps below:



### 1. Select device

Access the application and select the desired "Actuator for motor" device in the devices section. To access this section, simply click on Devices at the bottom of the screen. Once you have identified the motor actuator device, click on the green arrow on the right. A questo punto, è necessario cliccare sull'icona a forma di matita presente sulla sinistra dello schermo per entrare nella sezione di configurazione del dispositivo.



## 2. Device configuration page.

The Device configuration section allows us to choose the parameters, the operating mode and calibrate the device.

### Mode



It helps to define the mode of movement. The two choices available are normal or inverted, the normal one is set by default

#### Calibration



Action required to set the maximum and minimum movement limits of the rolling shutter. The two choices available are normal or time, the normal one is set by default.

### 1. Normal

By Normal Calibration we mean self-calibration. Once this option has been selected, click on SAVE at the top right.

Doing so will start the command to the motor actuator which will start to move the shutter to self-calibrate.

**WARNING!** During this process it is necessary to communicate the maximum and minimum limit of movement of the rolling shutter using the pairing button or the external buttons, following this procedure:

- 1. Press the pairing button or the corresponding external button once when the shutter reaches the first limit.
  - 1. Press the pairing button or the corresponding external button again when the shutter reaches the opposite limit.
  - 2. The LED will stop blinking when the calibration is complete.

#### 2. Time

## Built-in motor actuator

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By choosing this mode, it will be necessary to manually set the time, in seconds, that the shutter takes to complete an excursion.

2.1. After selecting Time Calibration, you need to set the seconds (in multiples of 5).



2.2. Click on the Tempo item and choose the desired value.

Then click on SAVE.

## Warranty & customer support

Visi tour website: http://www.ecodhome.com/acquista/garanzia-eriparazioni.html

If you encounter technical problems or malfunctions, visit the site: <a href="http://helpdesk.smartdhome.com/users/register.aspx">http://helpdesk.smartdhome.com/users/register.aspx</a>

After a short registration you can open a ticket online, also attaching images. One of our technicians will answer you as soon as possible.



SmartDHOME Srl

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