

# Flush shutter

Ordering code: **ZMNHCA2**

Type: **Flush shutter**

This Z-Wave module is used to control the motor of blinds, rollers, shades, garage doors, gates, venetian blinds, etc ... The module can be controlled either through a Z-Wave network or through the wall switch. Precise positioning is supported for motors equipped with mechanical or electronic end switches.

The module is designed to be mounted inside a "flush mounting box" and is hidden behind a traditional wall switch.

Module measures power consumption of motor and supports connection of digital temperature sensor.

## Supported switches

Module supports **mono-stable** switches (push button) and **bi-stable** switches. The module is factory set to operate with bi-stable switches.

## Installation

- Before the installation disconnect power supply.
- Connect the module according to electrical diagram.
- Locate the antenna far from metal elements (as far as possible).
- Do not shorten the antenna.

## Danger of electrocution!

- Module installation requires a great degree of skill and may be performed only by a qualified and licensed electrician.
- Even when the module is turned off, voltage may be present on its terminals. Any works on configuration changes related to connection mode or load must be always performed by disconnected power supply (disable the fuse).

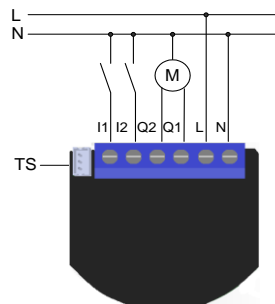
## Note

Do not connect the module to loads exceeding recommended values. Connect the module only in accordance to the below diagrams. Improper connections may be dangerous.

## Package contents

- Flush shutter

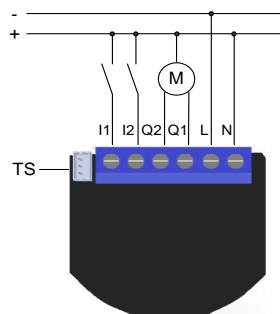
### Electrical diagram 230VAC



#### Notes for the diagram:

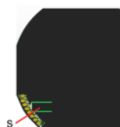
- N** Neutral lead
- L** Live lead
- Q1** Output for motor UP (open)
- Q2** Output for motor DOWN (close)
- I2** Input for switch/push button DOWN (close)
- I1** Input for switch/push button UP (open)
- TS** Terminal for digital temperature sensor (only for Flush shutter module compatible digital temperature sensor, which must be ordered separately).

### Electrical diagram 24VDC



#### Notes for the diagram:

- N** +24VDC
- L** -24VDC
- Q1** Output for motor UP (open)
- Q2** Output for motor DOWN (close)
- I2** Input for switch/push button DOWN (close)
- I1** Input for switch/push button UP (open)
- TS** Terminal for digital temperature sensor (only for Flush shutter module compatible digital temperature sensor, which must be ordered separately).



**S** Service button (used to add or remove module from the Z-Wave network)

Durability of the device depends on applied load. For resistive load (light bulbs, etc.) and 4A current consumption of each individual electrical device, the durability exceeds 70 000 switches of each individual electrical device.

### Module Inclusion (Adding to Z-wave network)

- Connect module to power supply,
- bring module within maximum 1 meter (3 feet) of the main controller,
- enable add/remove mode on main controller,
- auto-inclusion (30 minutes after connected to power supply) or
- press service button **S** for more than 2 second or
- press push button **I1** three times within 3s (3 times change switch state within 3 seconds)

### Module Exclusion/Reset (Removing from Z-Wave network)

- Connect module to power supply
- bring module within maximum 1 meter (3 feet) of the main controller,
- enable add/remove mode on main controller,
- press service button **S** for more than 6 second or
- press push button **I1** five times within 3s (5 times change switch state within 3 seconds).

By this function all parameters of the module are set to default values and own ID is deleted

If service button **S** is pressed more than 2 and less than 6 second module is excluded, but configuration parameters are not set to default values.

### Technical Specifications

Power supply	110 - 230 VAC ±10% 50/60Hz, 24-30VDC
Rated load current of AC output (resistive load)*	2 X 4A / 230VAC
Rated load current of DC output (resistive load)	2 X 4A / 30VDC
Output circuit power of AC output (resistive load)	2 X 920W (230VAC)
Output circuit power of DC output (resistive load)	2 X 96W (24VDC)
Power measurement accuracy	P=0-200W, +/-2W P>200W, +/-3%
Frequency Range	868.42MHz, Z-Wave
Digital temperature sensor range (sensor must be ordered separately)	-50 ~ 125°C
Operation temperature	-10 ~ 40°C
Distance	up to 30 m indoors (depending on building materials)
Dimensions (W x H x D)	41,8 x 36,8 x 16,9mm
Weight	25g
Electricity consumption	0,4W
For installation in boxes	Ø ≥ 60mm or 2M

Switching	Relay (2x)
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\*In case of load other than resistive, pay attention to the value of cos φ and if necessary apply load lower than the rated load. Max current for cos φ=0,4 is 2A at 250VAC.

### Important disclaimer

Z-wave wireless communication is inherently not always 100% reliable, and as such, this product should not be used in situations in which life and/or valuables are solely dependent on its function.

### Warning

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being. When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

This user manual is subject to change and improvement without notice.

