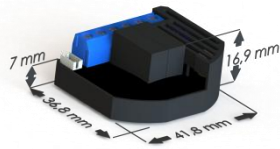


NETIChome®



## Shutter

Ordering code: **NEWHCA1**

Type: **Shutter**

Shutter module is part of NETIChome® system.

This 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 wireless 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.

### 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).

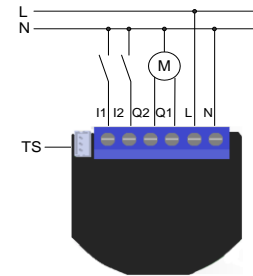
### Note

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

- Shutter

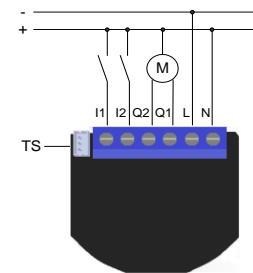
### Electrical diagram 230VAC



#### Notes for the diagram:

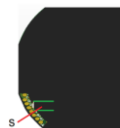
<b>N</b>	Neutral led
<b>L</b>	Live lead
<b>Q1</b>	Output for motor UP (open)
<b>Q2</b>	Output for motor DOWN (close)
<b>I2</b>	Input for switch/push button DOWN (close)
<b>I1</b>	Input for switch/push button UP (open)
<b>TS</b>	Terminal for digital temperature sensor (only for NETIChome compatible digital temperature sensor, which must be ordered separately).

### Electrical diagram 24VDC



#### Notes for the diagram:

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



**S** Service button (used to add or remove module from the NETIChome system).

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 wireless network)

- Connect module to power supply,
- bring module within maximum 1 meter (3 feet) of the NETIC,
- enable add/remove mode on NETIC,
- 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 wireless network)

- Connect module to power supply
- bring module within maximum 1 meter (3 feet) of the NETIC,
- enable add/remove mode on NETIC,
- 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.

### Association

Association enables Shutter module to transfer commands inside wireless network directly (without NETIC) to other NETIChome modules.

#### Associated Groups:

Group 1: multilevel (triggered at changes of value of the Shutter)

Group 2: default reporting group (reserved for the NETIC)

### Automatic calibration

Automatic calibration is a process during which the Shutter learns the position of the limit switches.

#### Shutter positioning calibration

There are two procedures of calibration.

- **Calibration through NETIC UI**

1) Include the module into the wireless network, according to module

include instructions.

- 2) Set the parameter 78 (Forced Shutter calibration) value to 1.
- 3) Shutter performs the calibration process, completing full cycle - up, down and up again.
- 4) Set the parameter 78 (Forced Shutter calibration) value to 0.

- **Calibration through the switch keys (I1, I2)**

- 1) Include the module into the wireless network, according to module include instructions.
- 2) Quick press the switch key connected to I1 input and wait until the shutter reach upper limit switch
- 3) Quick press the switch key connected to I2 input and wait until the shutter reach lower limit switch
- 4) Quick press the switch key connected to I1 input and wait until the shutter reach upper limit switch

### Manual operation

Shutter allows for connecting push buttons (monostable) or switches (bistable) to I1 and I2 terminals.

Clicking up button (<2s) connected to I1, initiates up movement.

Clicking down button (<2s) connected to I2, initiates down movement.

If the blind is moving, each click, of any button, will stop the movement.

Keep pressed button (>2s) connected to I1, initiates up movement until the button is released.

Keep pressed button (>2s) connected to I2, initiates down movement until the button is released.

### Configuration parameters

#### Parameter no. 10 - Activate/deactivate functions ALL ON / ALL OFF

Available configuration parameters:

- default value 255
- 255 - ALL ON active, ALL OFF active.
- 0 - ALL ON is not active ALL OFF is not active
- 1 - ALL ON is not active ALL OFF active
- 2 - ALL ON is not active ALL OFF is not active

On/Off module responds to commands ALL ON / ALL OFF that may be sent by the NETIC or by other controller belonging to the system.

#### Parameter no. 40 - Power reporting in Watts on power change for Q1 or Q2

Set value means percentage, set value from 0 – 100 = 0% - 100%

Available configuration parameters (data type is 1 Byte DEC):

- default value 1
- 0 – Reporting Disabled
- 1 – 100 = 1% - 100% Reporting enabled. Power report is send (push) only when actual power (in Watts) in real time changes for more than set percentage comparing to previous actual power in Watts, step is 1%.

**NOTE:** if power changed is less than 1W, the report is not send (pushed), independent of percentage set.

**Parameter no. 42 – Power reporting in Watts by time interval for Q1 or Q2**

Set value means time interval (0 – 65535) in seconds, when power report is send.

Available configuration parameters (data type is 2 Byte DEC):

- default value 300 (power report in Watts is send each 300s)
- 0 – Reporting Disabled
- 1 – 65535 = 1 second – 65535 seconds. Reporting enabled, power report is send with time interval set by entered value.

**Parameter no. 45 - Self-measurement**

A Shutter may include power and energy used by module itself in reports sent to the NETIC.

Available configuration parameters (data type is 1 Byte DEC):

- 0 – default value
- 0 - Self-measurement disabled
- 1 - Self-measurement enable

**Parameter no. 74 – Motor moving up/down time**

This parameter defines shutter motor moving time of complete opening or complete closing.

- Available configuration parameters (data type is 2 Byte DEC):
- Default value 0
- 0 – moving time disabled (working with limit switches)
- 1 – 65535 = 0,1seconds – 6553,5seconds

After that time motor is stoped (relay goes to off state)

**NOTE:**

Important is that the reference position to manually set moving time is always shutter lower position!

Set parameter 74 to 0 and move the shutter (using up/down push buttons or NETIC UI) to desired lower position. On this shutter position, set parameter 74 to time for complete opening or complete closing. At this point shutter can be moved up (open) for set time, but can't be moved down because this position is already set as lower shutter position.

To change shutter lower position below already set (manual recalibration), parameter 74 must be set to 0 and repeat the procedure described above.

In case Shutter has limit switches, but anyhow you would like to limit opening/closing position by time, you can still do it. In case you put time that is longer that opening/closing real time limited by limit switches, Shutter will stop at limit switch, but the module relay will switch off after define time, not by shutter limit switch. Take in consideration that in this condition, the positioning with slider through UI will not show correct shutter position.

**Parameter no. 75 - Motor operation detection**

Power threshold to be interpreted when motor reach the limit switch.

- Default value: 10 (10W).
- Available configuration parameters (data type is 1 Byte DEC):
- Available settings: 0 - 255 (1-255 W)
- The value 0 means reaching a limit switch will not be detected

**Parameter no. 78 - Forced Shutter calibration**

By modifying the parameters setting from 0 to 1 a Shutter enters the calibration mode.

- Default value: 0
- Available configuration parameters (data type is 1 Byte DEC):
- 1 - Start calibration process

**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
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)

\*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**

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 once, 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.



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**Partner**



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