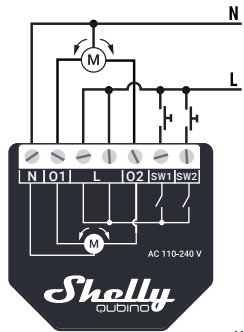Z-WAVE PLUS

Shelly QUBINO

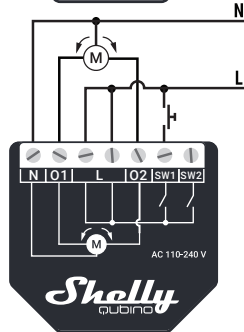# Wave Shutter
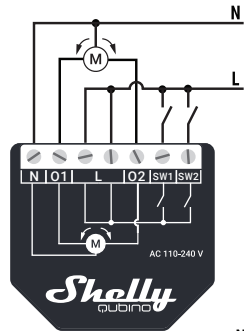

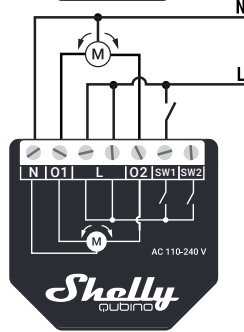Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

LEGEND

Device terminals:
• **N**: Neutral terminal
• **L**: Live (110-240 V AC) terminals
• **O1**: Output terminal for motor UP (open)
• **O2**: Output terminal for motor DOWN (close)
• **SW1**: Input terminal for switch/push-button UP (open)
• **SW2**: Input terminal for switch/push-button DOWN (close)
Wires:
• **N**: Neutral wire
• **L**: Live wire (110-240 V AC)
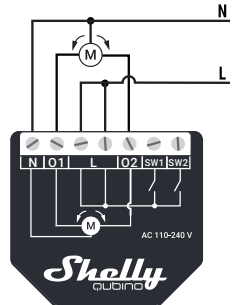**Button:**
• **S**: S button (Fig. 6)

USER AND SAFETY GUIDE

Z-Wave® shutter control with power measurement

READ BEFORE USE

This document contains important technical and safety information about the Device, its safe use and installation.

⚠ *CAUTION! Before beginning the installation, please read carefully and entirely this guide and any other documents accompanying the device. Failure to follow the installation procedures could lead to malfunction, danger to your health and life, violation of law or refusal of legal and/or commercial guarantee (if any). Shelly Europe Ltd.*
is not responsible for any loss or damage in case of incorrect installation or improper operation of this Device due to failure of following the user and safety instructions in this guide.

TERMINOLOGY

Gateway – A Z-Wave® gateway, also referred to as a Z-Wave® controller, Z-Wave® main controller, Z-Wave® primary controller, or Z-Wave® hub, etc., is a device that serves as a central hub for a Z-Wave® smart home network. The term "**gateway**" is used in this document.

S button - The Z-Wave® Service button, which is located on Z-Wave® devices and is used for various functions such as inclusion (adding), exclusion (removing), and resetting the device to its factory default settings. The term "**S button**" is used in this document.

Device – In this document, the term "**Device**" is used to refer to the Shelly Qubino device that is a subject of this guide.

ABOUT SHELLY QUBINO

Shelly Qubino is a line of innovative microprocessor-managed devices, which allow remote control of electric circuits with a smartphone, tablet, PC, or home automation system. They work on Z-Wave® wireless communication protocol, using a gateway, which is required for a configuration of devices. When the gateway is connected to the internet, you can control Shelly Qubino devices remotely from anywhere. Shelly Qubino devices can be operated in any Z-Wave® network with other Z-Wave® certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. Devices are designed to work with older generations of Z-Wave® devices and gateways.

ABOUT THE DEVICE

The Device enables remote control of motorized blinds, roller shutters, venetian blinds, awnings, etc. It measures power consumption of the connected device. It is recommended to use only motors with electronic or mechanical limit switches. The motor limit switches must be set correctly before connecting the Device to the motor.

INSTALLATION INSTRUCTIONS

The Device can control a bi-directional AC motor. It can be retrofitted into standard electrical wall boxes, behind the switches or other places with limited space.

⚠ **CAUTION!** Danger of electrocution. Mounting/installation of the Device to the power grid has to be performed with caution, by a qualified electrician.
⚠ **CAUTION!** Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage present at the Device terminals.
⚠ **CAUTION!** Use the Device only with a power grid and appliances that comply with all applicable regulations. A short circuit in the power grid or any appliance connected to the Device may damage it.
⚠ **CAUTION!** Do not connect the Device to appliances exceeding the given max. load!
⚠ **CAUTION!** Do not shorten the antenna.
⚠ **RECOMMENDATION:** Place the antenna as far away as possible from metal elements as they can cause signal interference.
⚠ **CAUTION!** Connect the Device only in the way shown in these instructions. Any other method could cause damage and/or injury.
⚠ **CAUTION!** Do not install the Device where it can get wet.
⚠ **CAUTION!** Do not use the Device if it has been damaged!
⚠ **CAUTION!** Do not attempt to service or repair the Device yourself!
⚠ **RECOMMENDATION:** Connect the Device using solid single-core wires with increased insulation heat resistance not less than PVC T105°C (221°F).

⚠ **CAUTION!** Before starting the mounting/installation of the Device, check that the breakers are turned off and there is no voltage on their terminals. This can be done with a phase tester or multimeter. When you are sure that there is no voltage, you can proceed to connecting the wires.

If you want to use the Device with a push-button, refer to the Fig. 1 and Fig. 2. For a switch, refer to the Fig. 3 and Fig. 4.

Connect both **L** terminals to the **Live** wire and the **N** terminal to the **Neutral** wire. Connect the common motor terminal/wire to the **Neutral** wire. Connect motor direction terminals/wires to the **O1** and **O2** terminals.* Connect the first switch/push-button to the **SW1** terminal and the **Live** wire. Connect the second switch/push-button to the **SW2** terminal and the **Live** wire.
*The Device outputs can be reconfigured to match the required rotation direction.

⚠ **CAUTION!** Use only one phase AC circuit. Do not use mixed AC and DC circuits.
⚠ **CAUTION!** Do not allow children to play with the push-buttons/ switches connected to the Device. Keep the devices for remote control of Shelly Qubino (mobile phones, tablets, PCs) away from children.
⚠ **RECOMMENDATION:** For inductive appliances that cause voltage spikes during switching on/off, such as electrical motors, fans, vacuum cleaners and similar ones, RC snubber (0.1 µF / 100 Ω / 1/2 W / 600 V AC) should be connected parallel to the appliance.
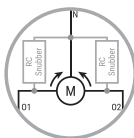
AUTOMATIC CALIBRATION

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

Note! For the correct position operation, the Device must perform a calibration procedure.
Note! The motor must be equipped with electronic or mechanical limit switches and the limit positions must be set correctly before calibration!
Note! The calibration is successful when the Device performs a complete cycle of movement: up, down, up, down to 50%.
Note! If the calibration is not executed, check that the limit switches are correctly set and that the wiring is done according to the instructions in the User Guide.

Automatic calibration with the push-button SW1:

Note! Calibration with the push-button SW1 is not time-limited and can be started anytime.

1. Move blind to the top (upper) position.
2. Press SW1 4 times in 3 seconds.
3. The Device will start calibration and complete 3 cycles: down, up, down to 50%.
4. Check the LED status to see if the calibration has been successful.

Automatic calibration with the S button:

Note! Calibration with the S button is not time-limited and can be started anytime.

1. Enter the Setting mode by pressing the S button for less than 0,5s (short press).
2. Keep pressing the S button until the calibration is selected, indicated by the yellow LED colour.
3. Start calibration by pressing the S button for more than 2 seconds.
4. The Device will start calibration and complete 3 cycles: down, up, down to 50%.
5. Check the LED status to see if the calibration has been successful.

VENETIAN MODE

NOTE: For more information about Venetian mode and this Device in general refer to the Extended User Guide.

EXTENDED USER GUIDE

For more detailed installation instructions, use cases, and comprehensive guidance on adding/removing the Device to/from a Z-Wave network, factory reset, LED signalization, Z-Wave command classes, parameters, and much more, refer to the extended user guide at:

https://shelly.link/WaveShutter-KB-ANZ

SPECIFICATIONS

Power supply	110–240 V AC, 50/60 Hz
Power consumption	< 0.3 W
Power measurement (W)	Yes
Max. switching voltage AC	240 V
Max. switching current AC	10 A per channel
Overheating protection	Yes
Overload protection	Yes
Distance	up to 40 m indoors (131 ft.) (depends on local condition)
Z-Wave® repeater	Yes
CPU	Z-Wave® S800
Z-Wave® frequencies band(s)	919,8 MHz
Maximum radio frequency power transmitted in frequency bend(s)	< 25 mW
Size (H x W x D)	37 mm x 42 mm x 16 mm ± 0.5 mm / 1.46 in x 1.65 in x 0.63 in ± 0.02 in
Weight	29 g / 1.02 oz.
Mounting	Wall console
Screw terminals max. torque	0.4 Nm / 3.5 lbin
Conductor cross section	0.5 to 1.5 mm² / 20 to 16 AWG
Conductor stripped length	5 to 6 mm / 0.20 to 0.24 in
Shell material	Plastic
Color	Black
Ambient temperature	-20°C to 40°C / -5°F to 105°F
Humidity	30% to 70% RH
Max. altitude	2000 m / 6562 ft.

OPERATIONAL INSTRUCTIONS

If the inputs are configured as push-buttons:
• Pressing the push-button when the blind is static, moves the blind in the corresponding direction until the endpoint is reached.
• Pressing the push-button for the same direction while the blind is moving stops the blind.
• Pressing the push-button for the opposite direction, while the blind is moving, reverses the blind movement until the endpoint is reached.

If the inputs are configured as switches:
• Turning the switch on moves the blind in the corresponding direction until the endpoint is reached.
• Turning the switch off stops the blind movement.
• If both switches are turned on, the Device respects the last engaged switch. Turning off the last engaged switch stops the blind's movement, even if the other switch is still on. To move the blind in the opposite direction, the other switch has to be turned off and on again.

SUPPORTED LOAD TYPES

Inductive with RC Snubber

IMPORTANT DISCLAIMER

Z-Wave® wireless communication may not always be 100% reliable. This Device should not be used in situations which life and/or valuables are solely dependent on its functioning. If the Device is not recognized by your gateway or appears incorrectly, you may need to change the Device type manually and ensure that your gateway supports Z-Wave Plus® multi-channel devices.

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RoHS COMPLIANT