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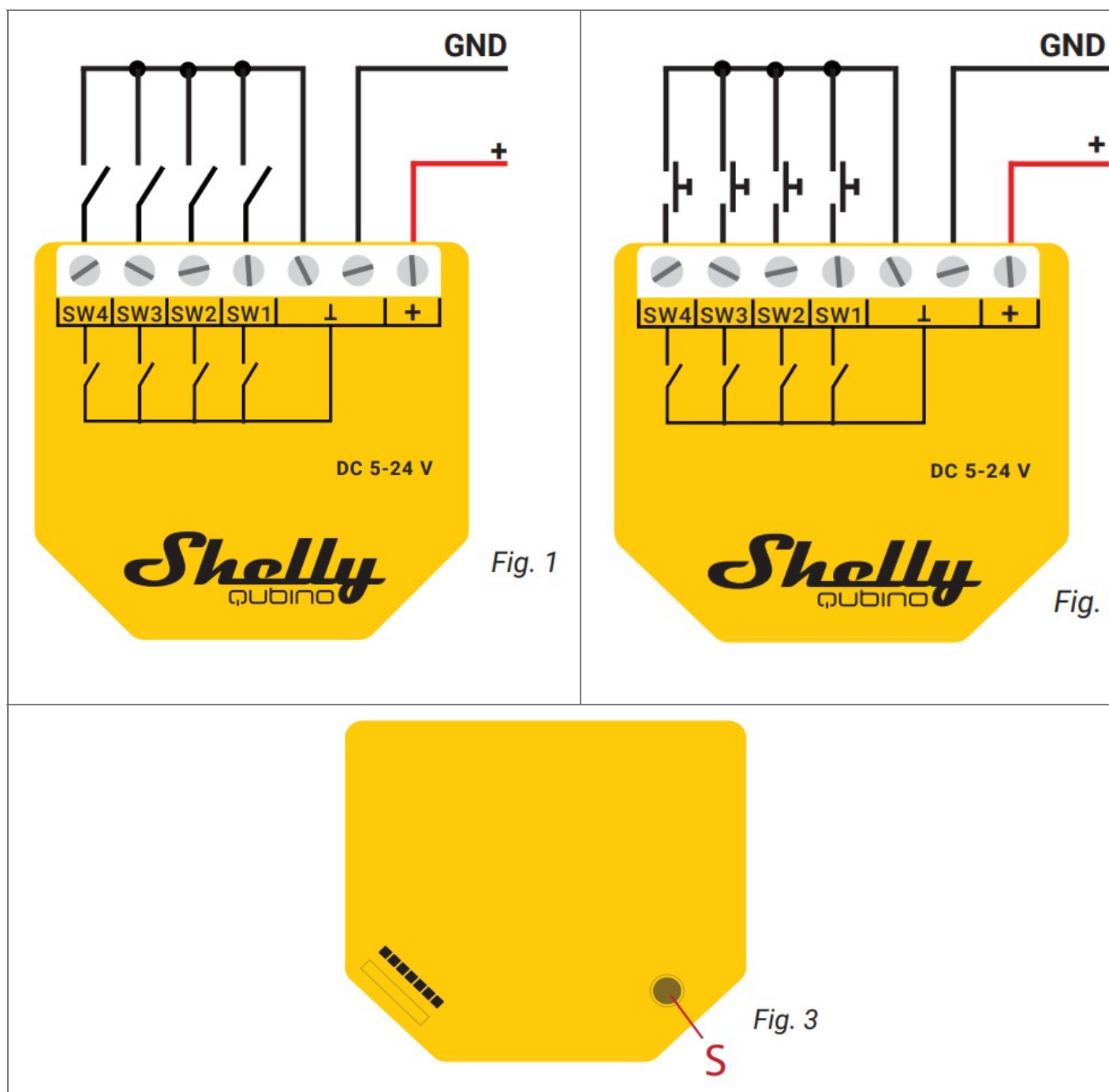
**Wave i4DC**

**User Guide**

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## **Wave i4DC Wireless Switch**



## LEGEND

### Device terminals:

- : Ground terminal
- +: Positive terminal
- SW1: Switch/push-button input terminal
- SW2: Switch/push-button input terminal
- SW3: Switch/push-button input terminal
- SW4: Switch/push-button input terminal

## **Wires:**

- GND: Ground wire
- +: Positive wire

## **Button:**

- S: S button (Fig. 3)

# **USER AND SAFETY GUIDE**

## **Z-Wave® 4 digital inputs controller**

### **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 Wave device that is a subject of this guide.

## ABOUT SHELLY WAVE

Shelly Wave 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 the Device. When the gateway is connected to the internet, you can control Shelly Wave devices remotely from anywhere. Shelly Wave 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 is a 4-digital inputs module (5-24 V DC) that controls other devices within the Z-Wave network. It enables manual activation or deactivation of scenes with a push-button.

## INSTALLATION INSTRUCTIONS

The Device can be retrofitted into a standard in-wall console, behind switches or other places with limited space.

For the installation instructions, refer to the wiring schemes (Fig. 1-2) in this user guide.

**⚠ WARNING!** Risk of electric shock. Make sure that after installing the device, its screw terminals are not accessible to users and protected by accidental short circuits!

**⚠ WARNING!** The operation of the service button must be managed by a professional installer. Risk of electric shock.

**⚠ CAUTION!** Danger of electrocution. Mounting/installation of the Device to the power grid has to be performed with caution, by a qualified electrician.

**⚠ WARNING!** Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage present at the Device terminals.

**⚠ CAUTION!** Do not open the Device. It does not contain any parts that can be maintained by the user. For safety and licensing reasons, unauthorized change and/or modification of the Device is not permitted.

⚠ **CAUTION!** Danger of electrocution. Make sure the voltage at the wires is not higher than 24 V DC. Use only stabilized voltage to power supply the Device.

⚠ **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 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!

⚠ **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.

⚠ **CAUTION!** Use only DC circuit. Do not use mixed AC and DC circuits.

⚠ **CAUTION!** Do not insert multiple wires in a single terminal.

⚠ **CAUTION!** Connect the Device using solid single-core cables or stranded cables with ferrules.

⚠ **CAUTION!** Do not allow children to play with the push-buttons/switches connected to the Device. Keep the devices for remote control of Shelly Wave (mobile phones, tablets, PCs) away from children.

## 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/Wavei4DC-KB-US>



## SPECIFICATIONS

Power supply AC	No
Power supply DC	5 – 24 V DC
Power consumption	< 0.3 W
Overload protection	No
Power measurement	No
Number of inputs	4
Distance	Up to 40 m indoors (131 ft.) (depends on local condition)
Z-Wave® repeater	Yes
CPU	Z-Wave® S800
Z-Wave® frequency bands	908.42MHz, 912MHz, 920MHz
Maximum radio frequency power transmitted in frequency band(s)	< 25 mW
Size (H x W x D)	37x42x16 ±0.5 mm / 1.46×1.65×0.63 ±0.02 in
Weight	17 g/ 0.6 oz
Mounting	Wall console
Screw terminals max. torque	0.4 Nm / 3.5 lbin

Conductor cross section	0.5 to 1.5 mm <sup>2</sup> / 20 to 16 AWG
Conductor stripped length	5 to 6 mm / 0.20 to 0.24 in
Shell material	Plastic
Color	Yellow
Ambient temperature	-20°C to 40°C / -5°F to 105°F
Humidity	30% to 70% RH

## OPERATIONAL INSTRUCTIONS

If the SW 1-4 are configured as a push-buttons (default), each single press, double press, hold and release of the push-button will trigger the predefined scene.

## IMPORTANT DISCLAIMER

Z-Wave® wireless communication may not always be 100% reliable. This Device should not be used in situations in 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.

## DISPOSAL & RECYCLING

This refers to the waste of electrical and electronic equipment.

It is applicable in the US and other countries to collect waste separately.



This symbol on the product or in the accompanying literature indicates that the product should not be disposed of in the daily waste. Wave i4 DC must be recycled to avoid possible damage to the environment or human health from uncontrolled waste disposal and to promote the reuse of materials and resources. It is your responsibility to dispose of the device separately from general household waste when it is already unusable.

## FCC NOTES

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification or change to this equipment. Such modifications or change could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**RF exposure statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

ORDERING CODE: **QNSN-0D24XUS**

**MANUFACTURER:**

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Web: <https://www.shelly.com>

Changes in the contact data are published by the Manufacturer at the official website:  
<https://www.shelly.com>



## Documents / Resources

	<a href="#">Shelly Wave i4DC Wireless Switch [pdf]</a> User Guide Wave i4DC, Wave i4DC Wireless Switch, Wireless Switch, Switch
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## References

- [User Manual](#)

Shelly, switch, Wave i4DC, Wave i4DC Wireless Switch, Wireless

Shelly Switch

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