

Switching Actuator S1-R (Series 2)

Zigbee and Bluetooth – with Power and Energy Metering



Item No.: 1151

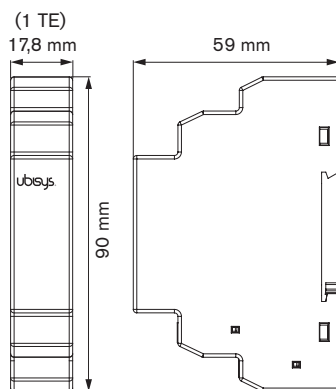


Specifications

The Switching Actuator S1-R is a radio controlled universal switch actuator with integrated power and energy metering. It is compatible to standard fuse boxes and fully integrates into the rest of the building technology. Due to the use of radio technology, it is not only suitable for new buildings, but also for existing buildings. The Switching Actuator S1-R offers full functionality when combined with other components of the ubisys Smart Home product line or other Zigbee systems and allows for example:

- Zero-Spark output: The S1-R features the latest ubisys Zero-Spark technology, which completely eliminates ignition sparks when switching the electrical load on and off. This protects the electrical consumer and the switching contacts of the S1-R and avoids bulky external RC snubbers
- Control via smartphone and tablet using the ubisys app, or as usual via buttons or switches
- Zigbee router integrated
- Integration in scenes and group control
- Integration in scheduled actions and automations
- Interoperable with many Smart Home systems of other manufacturers
- Power and energy metering
- Zigbee Direct (Bluetooth): Simplified commissioning and control via smartphone and tablet – without gateway or hub
- Zigbee Green Power: Can be connected directly to maintenance-free Green Power switches

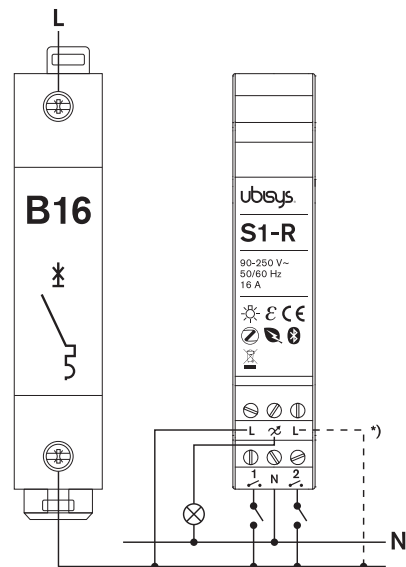
Dimensions



Installation

The Switching Actuator S1-R meets the requirements of DIN 43880 and is designed for installation in fuseboxes, mounted on DIN rails according to EN50022.

Leads:

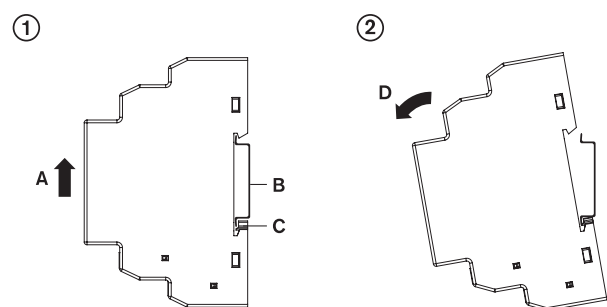


*) The S1-R has two terminals for the operating voltage (L), which are internally connected. It is not necessary to connect both.

The Switching Actuator S1-R retains its switch position when disconnected from power. The switch position is undefined upon delivery; i. e. the switching output can be conductively connected to the phase L!

Deinstallation

The S1-R has a spring mechanism (C). To avoid damaging it when removing, please proceed as follows:
First push the S1-R upwards (A) and then remove it from the DIN rail (B) with a tilting movement (D).



Zigbee Initial Commissioning via Gateway or Hub

1. Connect the unit to a power source (according to the leads).
2. Open a Zigbee network: when using the ubisys gateway, tap **Configuration -> Basic Configuration -> Open for new devices** in the ubisys app (if you are using third-party gateways or apps, follow the corresponding procedure).
3. The Zigbee network is open and the device joins.
4. The device appears in the component list: **Configuration -> Basic Configuration -> Components**.

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Zigbee Direct (Bluetooth) Initial Commissioning – without Gateway or Hub

Zigbee Direct allows for integration and control of Zigbee devices directly via Bluetooth. With Zigbee Direct, users can seamlessly interact with their Zigbee networks via smartphone, tablet or other Bluetooth-enabled devices:

1. Connect the unit to a power source (according to the leads).
2. When using the ubisys iOS app, tap on **Settings** -> **Facilities** -> **Pen top right** -> **New Facility** -> **Create via Bluetooth**.
3. Select the S1-R from the list of available components.
Note: The last four digits of the serial number are displayed.
4. Confirm the creation of a new system with this device.
5. Under **Configuration** -> **Basic configuration** -> **Components** the virtual gateway will be displayed together with the S1-R.

Note:

Zigbee Direct supports many commissioning options and is an open standard. Zigbee Direct also allows further settings, such as the configuration of inputs, links, groups and scenes, in third-party systems that do not provide these functions themselves. It is also possible to update the firmware this way. Just one Zigbee Direct device in the network is sufficient to set up and control all the other Zigbee devices.

Factory Reset via Power-Cycle Sequencing

To reset the device to factory settings without directly accessing the device itself (only the power supply), follow this on/off sequence:

1. Power on for **at least 15 seconds**.
2. Power off for **at least 15 seconds**.
3. Power on for **at least 0.5 seconds** but no more than **2 seconds**.
4. Repeat steps 2.-3. three more times (**four times in total**). The final power-on must last at least 30 seconds until the device resets and restarts (see step 5.).



5. The device will automatically reboot to the original factory settings.

Configuration

Upon delivery the factory settings of the Switching Actuator S1-R has the first switch input assigned to the corresponding switching output. This way it initially can be operated autonomously without a radio network. The second input is not configured by default.

For integration into the Smart Home radio network, the Switching Actuator S1-R has to be configured first. Direct access to the power switch S1-R is not necessary for configuration. This means that the network configuration can also be done after successful electrical installation. It is best to write down the 16 digit serial number of the Switching Actuator S1-R in the construction plan during installation. This allows you to locate the device at a later point.

When connected to power, the Switching Actuator S1-R automatically logs on to the gateway and can be configured via the ubisys app. More information about adding and configuring ubisys Smart Home components can be found in the app manual.

Technical Information

Rated voltage	90-250 V~, 50/60 Hz
Max. switching capacity	16 A
Power consumption	~0.1 W
Radio technology	Zigbee 3.0 in 2.4 GHz ISM Band, IEEE 802.15.4 channels 11-26, 10dBm transmitting power, Bluetooth 5.3 (Low Energy). The RF max output power is less than 13dBm. Radio frequency range: Bluetooth (BLE): 2402-2480 MHz, IEEE 802.15.4 (Zigbee): 2405-2480 MHz
Environment temperature	-20°C - +45°C

Certifications and Environmental Contribution



CAUTION!

- Danger of electrocution. Mounting/installation of the device to the power grid has to be performed with caution, by a qualified electrician. There is a risk of electric shock. Electrical shock can result in death.
- 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 mains voltage tester or multimeter. When you are sure that there is no voltage, you can proceed to connecting the wires.
- Even unconnected ports can carry threatening voltages.
- Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage present at the device terminals.
- Do not use the device if it shows any sign of damage or defect.
- 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. Opening the unit or other devices voids the warranty.
- Use the device only with a power grid and appliances that comply with all applicable regulations. A short circuit in the power grid, output circuit, or input circuits may damage the device!
- No SELV/PELV circuits may be connected to the terminals of the inputs and outputs, including the extension inputs.
- Do not connect the device to appliances exceeding the given max load!
- Connect the device only in the way shown in these instructions. Any other method could cause damage and/or injury.
- The device is intended for indoor use only.
- Keep the device away from liquids and moisture. Do not use the device in places with high humidity.
- The device can control electric circuits and appliances wirelessly. Proceed with caution! Irresponsible use of the device may lead to malfunction, danger to your life, or violation of the law.
- The device has to be secured by a cable protection switch in accordance with EN60898-1 (tripping characteristic B or C, max. 16 A rated current, min. 6 kA interrupting rating, energy limiting class 3).

ATTENTION!

Do not use buttons or switches with built-in LED or glow-lamp!

RECOMMENDATION

Connect the device using solid single-core wires or stranded wires with ferrules.

NOTE

The Switching Actuator S1-R retains its switch position even after loss of the operating voltage. Switch position is undefined upon delivery. The switching output can carry threatening voltages at any time.

NOTE

The information in this document refers to the „Series 2“ of the S1-R with Zigbee and Bluetooth.

Conformity

This device complies with the applicable directives and standards of the EU. There is no restriction to use this product across the EU countries. Hereby, we ubisys technologies GmbH declare that this switching actuator is in compliance with the essential requirements and other relevant provisions of directive 2014/53/EU. The declaration of conformity may be consulted at <https://www.ubisys.de/downloads/ubisys-s1-technical-reference.pdf>.

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Designed and engineered in Germany.
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