

SR-9101-400-TRIAC-PM ZIGBEE 3.0 AC- Phasenabschnittsdimmer inkl. Leistungsmessung



Eigenschaften / Features

ZigBee AC Phasenabschnittsdimmer basierend auf dem neuesten ZigBee 3.0-Protokoll

100-240VAC breite Eingangs- und Ausgangsspannung

Unterstützt ohmsche Lasten, kapazitive Lasten oder induktive Lasten

1-Kanal-Ausgang, bis zu 400W

Eingang und Ausgang mit Schraubklemmen, sicher und zuverlässig

Sowohl leading edge-Version als auch trailing edge-Versionen sind zur Auswahl verfügbar, Werkseinstellung

Ermöglicht die Steuerung von EIN/AUS und Lichtintensität der angeschlossenen Lichtquelle

ZigBee-Endgerät, das die Touchlink-Inbetriebnahme unterstützt

Kann direkt mit einer kompatiblen ZigBee-Fernbedienung über Touchlink ohne Koordinator gekoppelt werden

Unterstützt die Selbstbildung eines ZigBee-Netzwerks ohne Koordinator und das Hinzufügen anderer Geräte zum Netzwerk

Unterstützt den Find-and-Bind-Modus, um eine ZigBee-Fernbedienung zu verbinden

Unterstützt ZigBee Green Power und kann max. Kompatibel mit universellen ZigBee-Gateway-Produkten

Mini-Größe, einfach in eine Standard-Wanddose zu installieren

Funkfrequenz: 2,4GHz

Wasserdichtigkeitsgrad: IP20

5 Jahre Garantie

ZigBee AC phase cut dimmer based on latest ZigBee 3.0 protocol

100-240VAC wide input and output voltage

Supports resistive loads, capacitive loads or inductive loads

1 channel output, up to 400W

Input and output with screw terminals, safe and reliable

Both leading edge version and trailing edge versions are available for choosing, preset by factory setting

Enables to control ON/OFF and light intensity of connected light source

ZigBee end device that supports Touchlink commissioning

Can directly pair to a compatible ZigBee remote via Touchlink without coordinator

Supports self-forming zigbee network without coordinator and add other devices to the network

Supports find and bind mode to bind a ZigBee remote

Supports zigbee green power and can bind max. 20 zigbee green power switches

Compatible with universal ZigBee gateway products

Mini Size, easy to be installed into a standard wall box





Radio frequency : 2.4GHz

Waterproof grade: IP20

5 years warranty

Technische Daten / Technical Data

Input Voltage	Output Voltage	Output Current	Size(LxWxH)
100-240VAC	100-240VAC	1.8A max	45.5x45x20.3mm

Compatible Load Types			
Load Symbol	Load Type	Maximum Load	Remarks
	Dimmable LED lamps	200W @ 230V 100W @ 110V	Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power factor result when connected to dimmer.
	Dimmable LED drivers	200W @ 230V 100W @ 110V	Maximum permitted number of drivers is 200W divided by driver nameplate power rating.
	Incandescent lighting, HV Halogen lamps	400W @ 230V 200W @ 110V	
	Low voltage halogen lighting with electronic transformers	200W @ 230V 100W @ 110V	

Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

ZigBee Clusters the device supports are as follows:

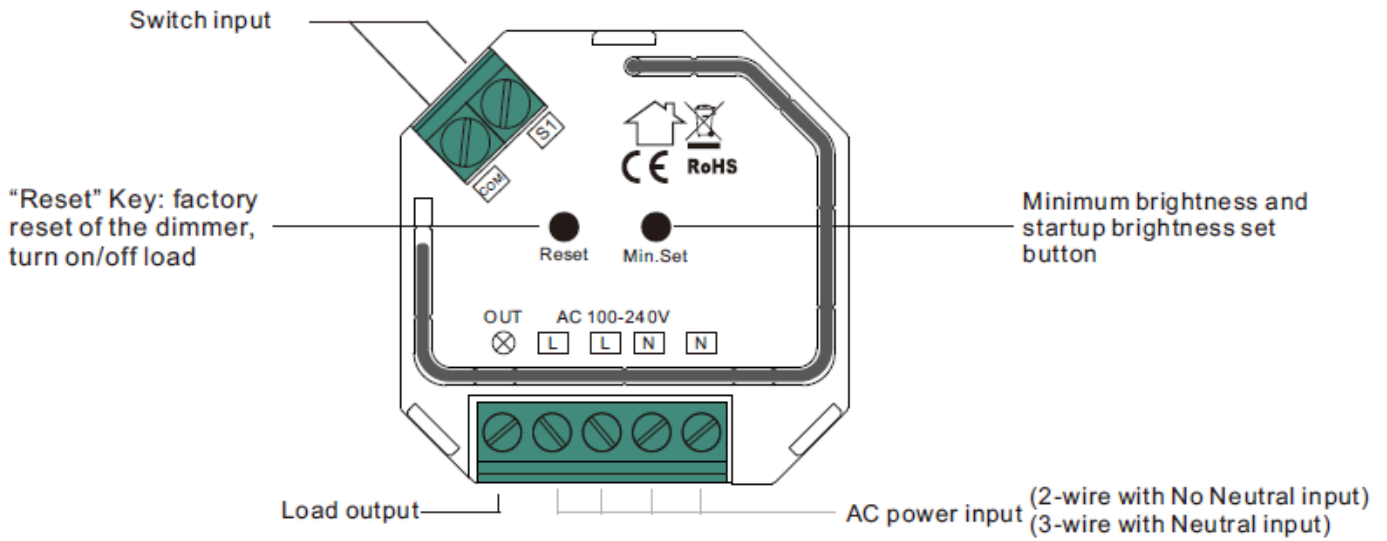
Input Clusters

- 0x0000: Basic • 0x0003: Identify • 0x0004: Groups • 0x0005: Scenes • 0x0006: On/off
- 0x0702: Simple Metering • 0x0008: Level Control • 0x0b04: Electrical Measurement • 0x0b05: Diagnostics

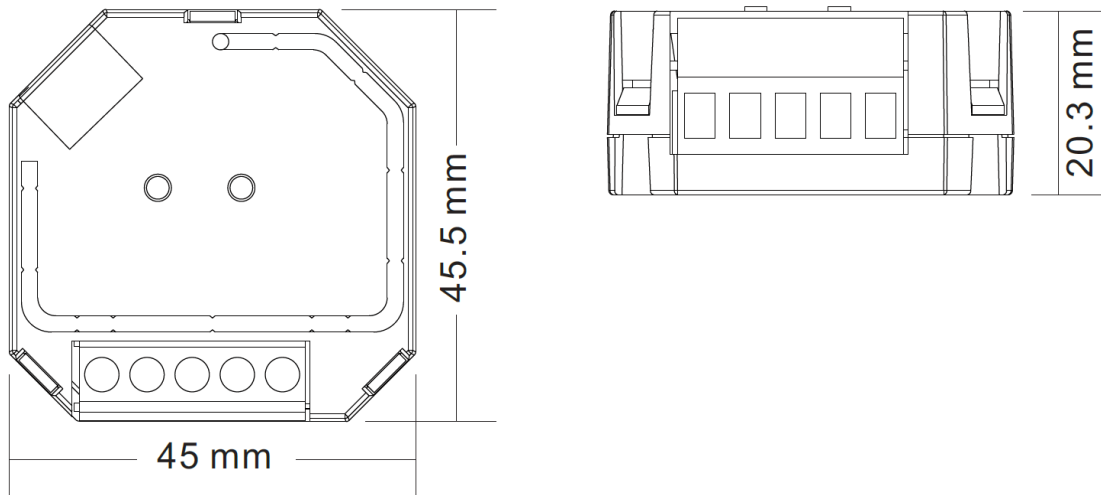
Output Clusters

- 0x0019: OTA

Funktion / Function



Abmessungen / Dimension



Features

- Kann in einem Zweileiteranschluss ohne Nullleiter oder in einem Dreileiteranschluss mit Nullleiter betrieben werden
 - Fortschrittliche Mikroprozessorsteuerung
 - Implementierter Algorithmus zur intelligenten Erkennung von Lichtquellen
 - Aktive Leistungs- und Energiemessfunktion
 - Softstartfunktion
 - Innovative Funktion zur Einstellung des Mindestdimmwerts und der Starthelligkeit
 - Funktioniert mit verschiedenen Schaltertypen - Taster, Kippschalter, Dreiwegschalter usw.
 - Aktives Element: elektronischer Halbleiterschalter
 - Einbau in Schaltdosen, deren Abmessungen den Einbau gemäß den geltenden Vorschriften zulassen
 - Der Bypass ist eine Erweiterungseinheit
-
- Can operate under two-wire connection with no neutral lead or three-wire connection with neutral lead
 - Advanced microprocessor control
 - Implemented algorithm of smart light source detection
 - Active power and energy metering functionality
 - Soft start function
 - Innovative minimum dimming level and startup brightness setting function
 - Works with various types of switches – momentary, toggle, three-way, etc.
 - Active element: semiconductor electronic switch
 - To be installed in wall switch boxes of dimensions allowing for installation, conforming to provisions of applicable regulations
 - The Bypass is an extension unit

Als Dimmer

- Herkömmliche Glühlampen und HV-Halogenlichtquellen
 - ELV-Halogenlampen und dimmbare LED-Lampen (mit elektronischen Transformatoren)
 - MLV-Halogenlampen (mit ferromagnetischen Transformatoren)
 - Dimmbare LED-Glühbirnen
 - Dimmbare Kompakt-Leuchtstoffröhren CFL
 - Unterstützte dimmbare Lichtquellen (Leistungsfaktor > 0,5) mit einer Mindestleistung von 3VA unter Verwendung des Bypasses (je nach Art der Last)
-
- Conventional incandescent and HV halogen light sources
 - ELV halogen lamps and dimmable LED bulbs (with electronic transformers)
 - MLV halogen lamps (with ferromagnetic transformers)
 - Dimmable LED bulbs
 - Dimmable compact fluorescent CFL tube lamps
 - Supported dimmable light sources (power factor > 0.5) with minimal power of 3VA using the Bypass (depending on the type of load)

Features

Der Dimmmodus „abfallende Flanke“ oder „ansteigende Flanke“ kann werkseitig für die Steuerung der folgenden Lasttypen voreingestellt werden:

- "Nachlaufende Flanke" für ohmsche Lasten
- "Nachlaufende Flanke" für kapazitive Lasten
- "Voreilende Flanke" für induktive Lasten

Hinweis: Die werkseitige Voreinstellung ist "Nacheilende Flanke".

Trailing edge or leading edge dimming mode can be preset by factory setting to control following types of loads:

- "Trailing edge" for resistive loads
- "Trailing edge" for capacitive loads
- "Leading edge" for inductive loads

Note: factory default version is trailing edge.

Bedienung / Operation

1. Do wiring according to connection diagram correctly.

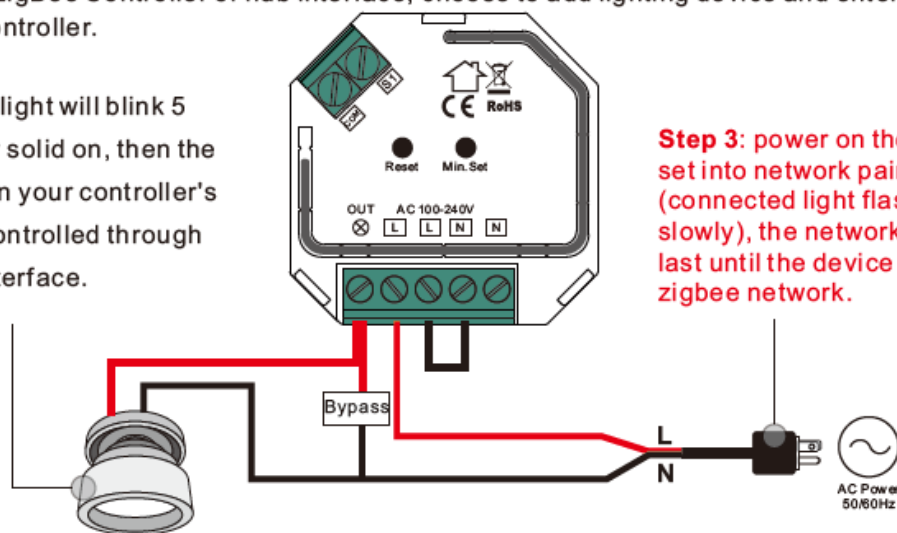
2. This ZigBee device is a wireless receiver that communicates with a variety of ZigBee compatible systems. This receiver receives and is controlled by wireless radio signals from the compatible ZigBee system.

3. Zigbee Network Pairing through Coordinator or Hub (Added to a Zigbee Network)

Step 1: Remove the device from previous zigbee network if it has already been added to, otherwise pairing will fail. Please refer to the part "Factory Reset Manually".

Step 2: From your ZigBee Controller or hub interface, choose to add lighting device and enter Pairing mode as instructed by the controller.

Step 4: Connected light will blink 5 times and then stay solid on, then the device will appear in your controller's menu and can be controlled through controller or hub interface.



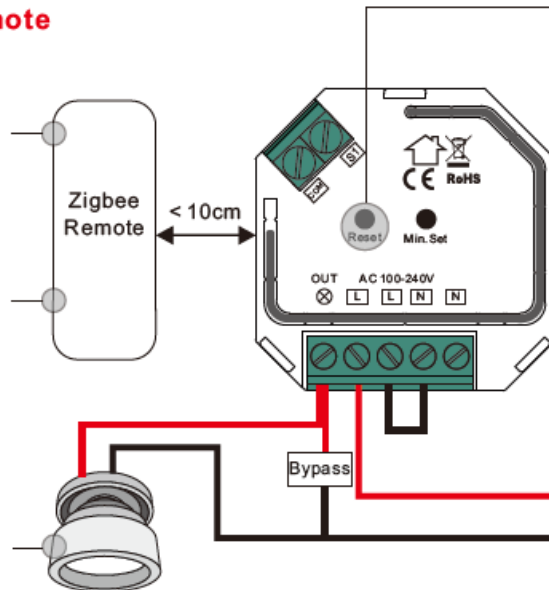
Bedienung / Operation

4. TouchLink to a Zigbee Remote

Step 2: Bring the remote or touch panel within 10cm of the lighting device.

Step 3: Set the remote or touch panel into Touchlink commissioning, please refer to corresponding remote or touch panel manual to learn how.

Step 4: There shall be indication on the remote for successful link and connected light will flash twice.

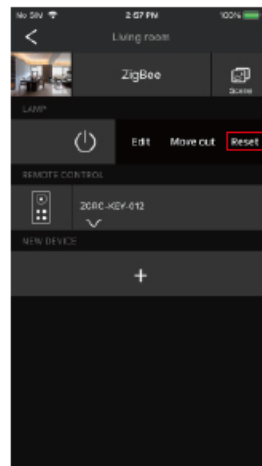


Step 1: Method 1: Short press "Reset" button 4 times (or re-power on the device 4 times) to start Touchlink commissioning immediately, 180S timeout, repeat the operation.

Method 2: Power on the device, whether the device is already added to a network or not, it will be set into Touchlink commissioning immediately, 180S timeout. Once timeout, re-power on the device to set it into touchlink commissioning again.

- Note:**
- 1) Directly TouchLink (both not added to a ZigBee network), each device can link with 1 remote.
 - 2) TouchLink after both added to a ZigBee network, each device can link with max. 30 remotes.
 - 3) To control by both gateway and remote, add remote and device to network first then TouchLink.
 - 4) After TouchLink, the device can be controlled by the linked remotes.

5. Removed from a Zigbee Network through Coordinator or Hub Interface

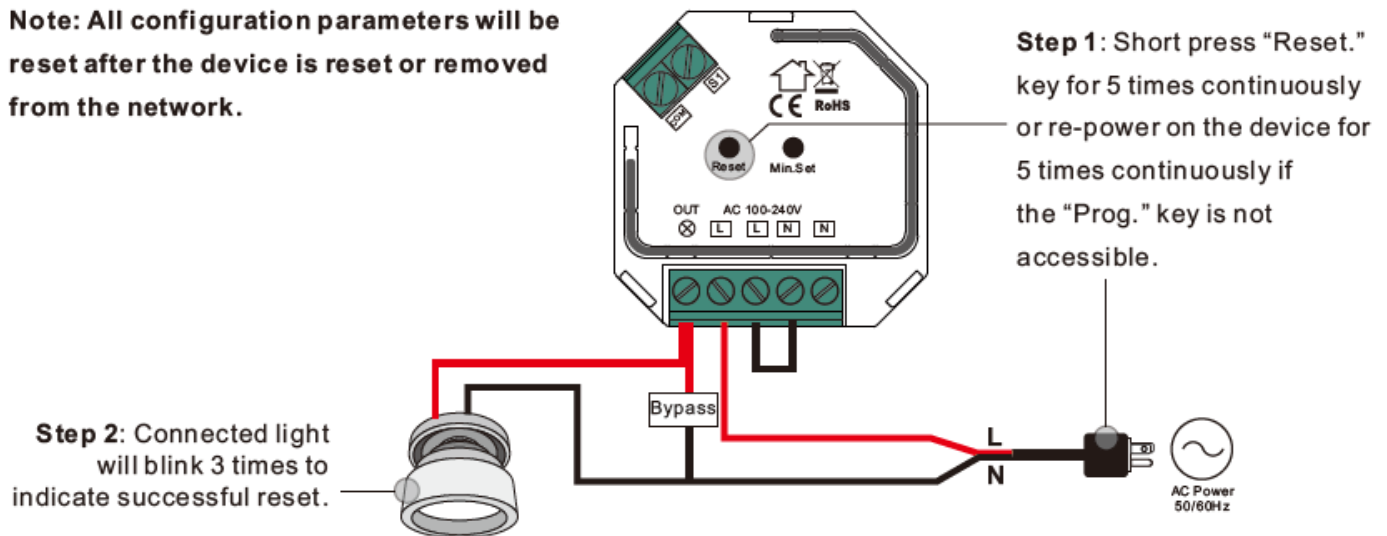


From your ZigBee controller or hub interface, choose to delete or reset the lighting device as instructed. The connected light blinks 3 times to indicate successful reset.

Bedienung / Operation

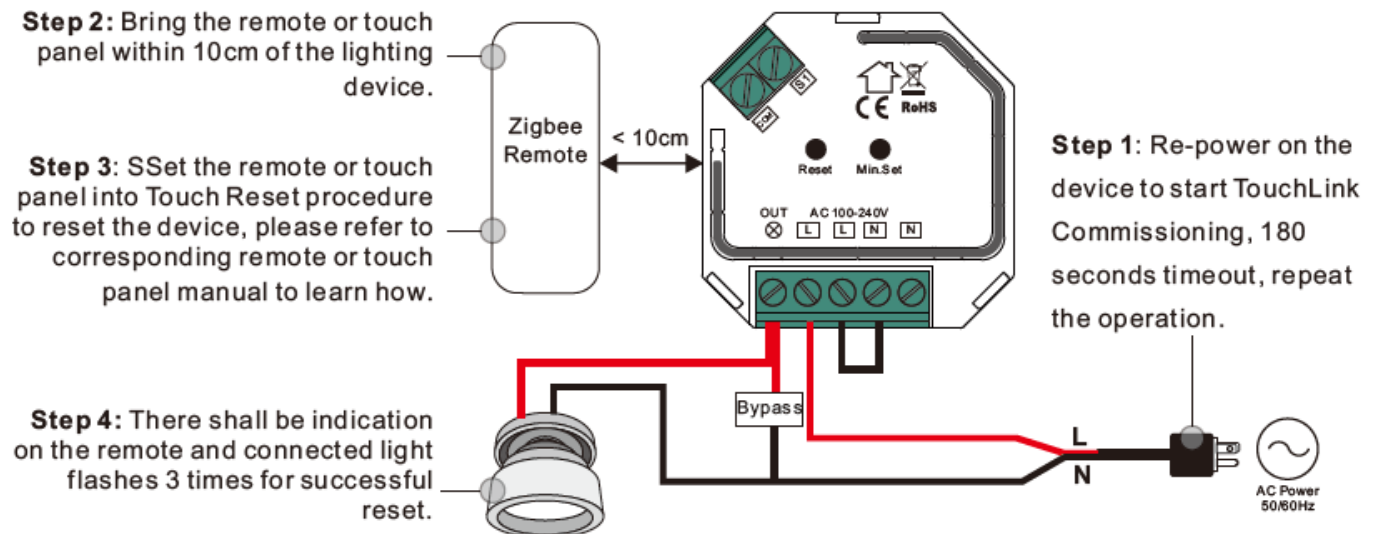
6. Factory Reset Manually

Note: All configuration parameters will be reset after the device is reset or removed from the network.



7. Factory Reset through a Zigbee Remote (Touch Reset)

Note: Make sure the device already added to a network, the remote added to the same one or not added to any network.



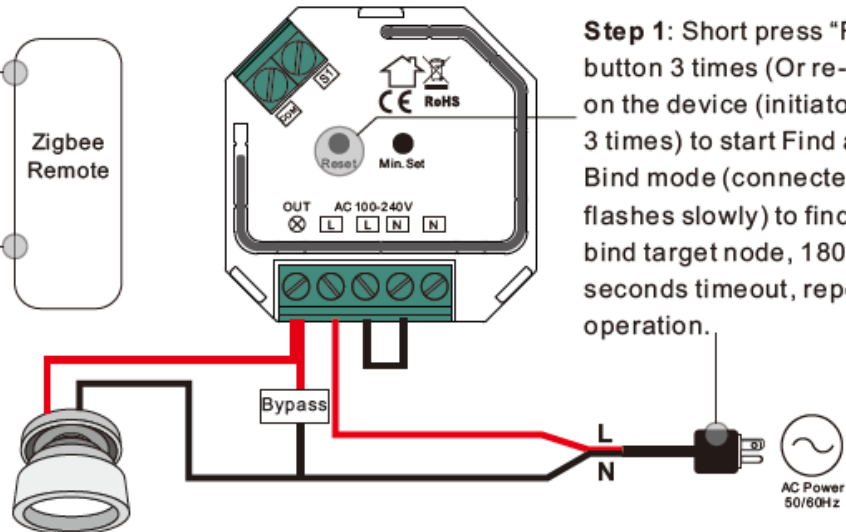
Bedienung / Operation

8. Find and Bind Mode

Note: Make sure the device and remote already added to the same zigbee network.

Step 2: Set the remote or touch panel (target node) into find and bind mode, and enable it to find and bind initiator, please refer to corresponding remote or touch panel manual.

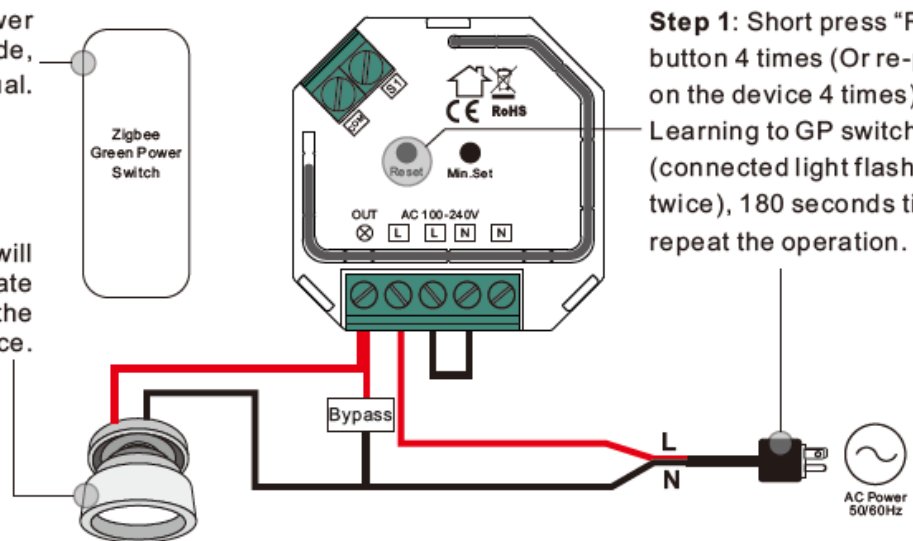
Step 3: There shall be indication on the remote or touch panel that it bind the device successfully and can control it then. to learn how.



9. Learning to a Zigbee Green Power Switch

Step 2: Set the green power switch into Learning mode, please refer to its manual.

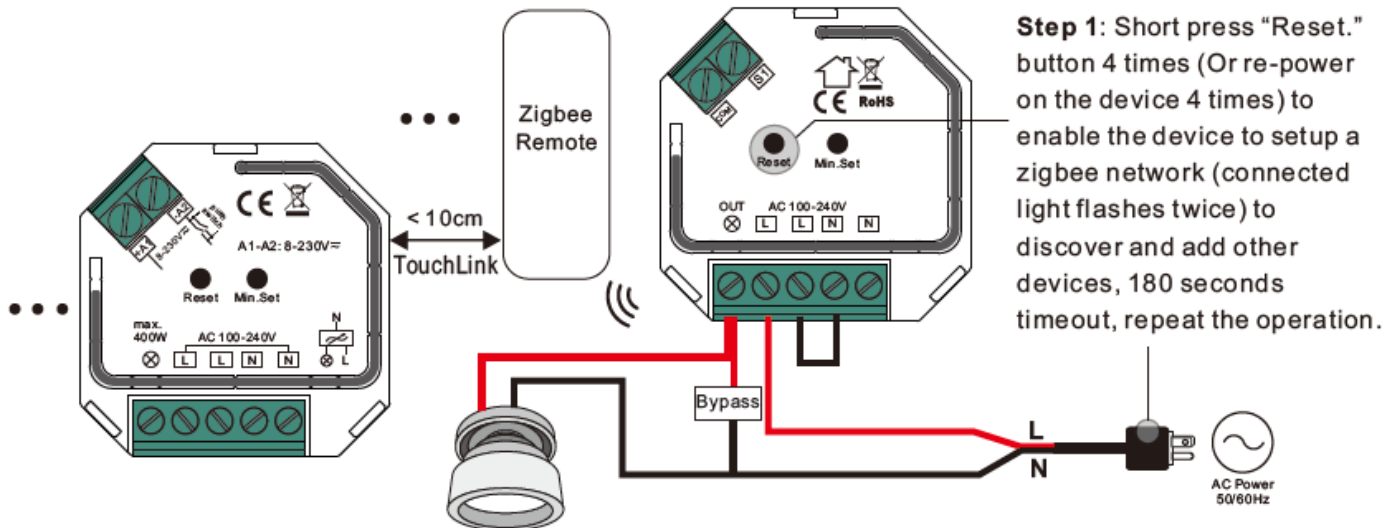
Step 3: Connected light will flash twice to indicate successful learning. Then the switch can control the device.



Note: Each device can learn to max. 20 zigbee green power remotes.

Bedienung / Operation

11. Setup a Zigbee Network & Add Other Devices to the Network (No Coordinator Required)



Step 2: Set another device or remote or touch panel into network pairing mode and pair to the network, refer to their manuals.

Step 3: Pair more devices and remotes to the network as you would like, refer to their manuals.

Step 4: Bind the added devices and remotes through Touchlink so that the devices can be controlled by the remotes, refer to their manuals.

Note: 1) Each added device can link and be controlled by max. 30 added remotes.

2) Each added remote can link and control max. 30 added devices.

12. OTA

The device supports firmware updating through OTA, and will acquire new firmware from zigbee controller or hub every 10 minutes automatically.

13. Minimum and Startup Brightness Setting Button

Press and hold down the button for 3 seconds to set minimum brightness: when current brightness value is 1%-50%, it will be set as minimum brightness. When current brightness value is 100%, previously set minimum brightness will be deleted. Once a minimum brightness is set, the connected load can not be dimmed below this level.

Short press the button twice to set startup brightness: when current brightness value is 1%-50%, it will be set as startup brightness. When current brightness value is 0%, previously set startup brightness will be deleted.

Note: startup brightness setting function is to avoid the phenomenon that some dimmable LED drivers can not be turned on after dimmed to a low level and turned off. Once setting a startup brightness, if the startup brightness is higher than dimmed level before turned off, the driver will first go to the startup brightness after turned on then drop down to the dimmed level. If the startup brightness is lower than the dimmed level before turned off, the driver will directly go to the dimmed level after turned on.

Bedienung / Operation

14. Controlled by a push switch:

Once connected with a push switch, click the push switch to switch ON/OFF, press and hold down it to increase/decrease light intensity.

Wiring Diagram

Notes for the diagrams:

L - terminal for live lead

N - terminal for neutral lead

Out - output terminal of the dimmer (controlling connected light source)

S1 - terminal for switch

COM - terminal for grounding to the switch connected to the dimmer




Supported Switch Types:

The switch types this device supports can be configured by factory setting:

1. Push Switch (factory default setting)

2. Toggle On/Off Switch (can be configured by factory setting upon request)

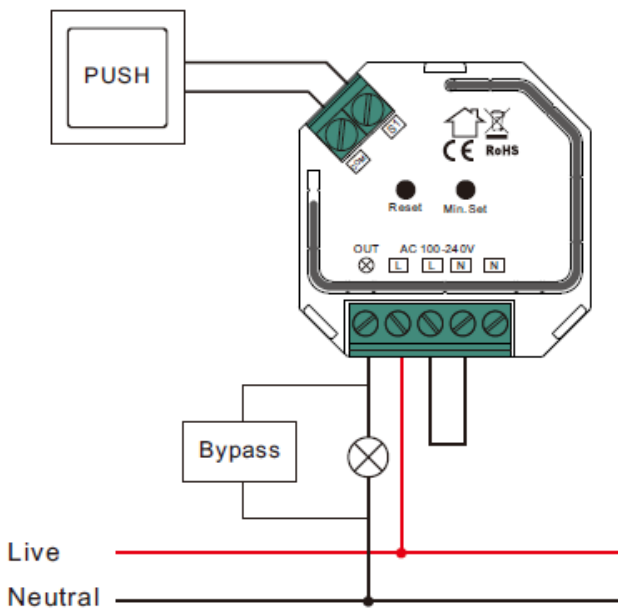
Compatible load types and recommended values of power for supported loads:

Supported load types		100-240V~	
	Resistive loads Conventional incandescent and halogen light sources	20-400W @ 230V 20-200W @ 110V	
	Capacitive loads Fluorescent tube lamp (compact / with electronic ballast), electronic transformer, LED	Using Bypass: 3-200W @ 230V 3-100W @ 110V	No Bypass Used: 20-200W @ 230V 20-100W @ 110V
	Inductive loads Ferromagnetic transformers	20-200W @ 230V 20-100W @ 110V	

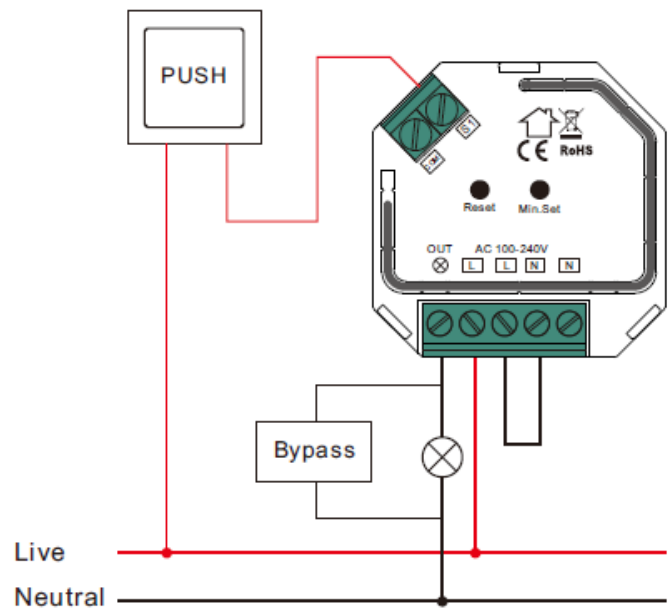
Bedienung / Operation

(1) 2-Wire Connection With No Neutral Lead

With PUSH LV



With PUSH

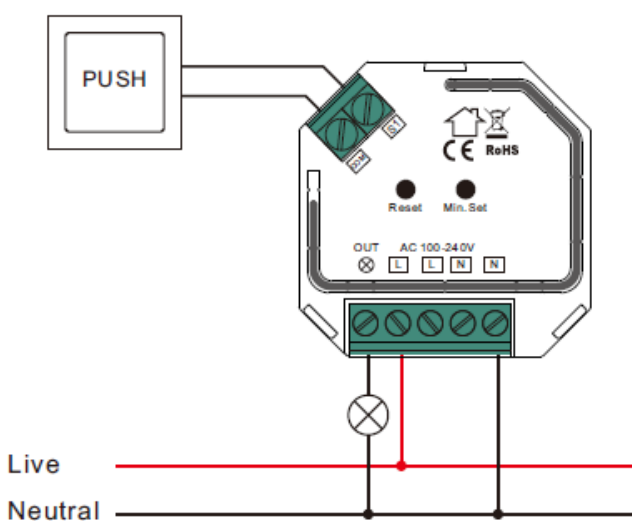


NOTE: Switch connected to the S1 terminal activates the basic functionality of the dimmer (turning the light on/off, dimming).

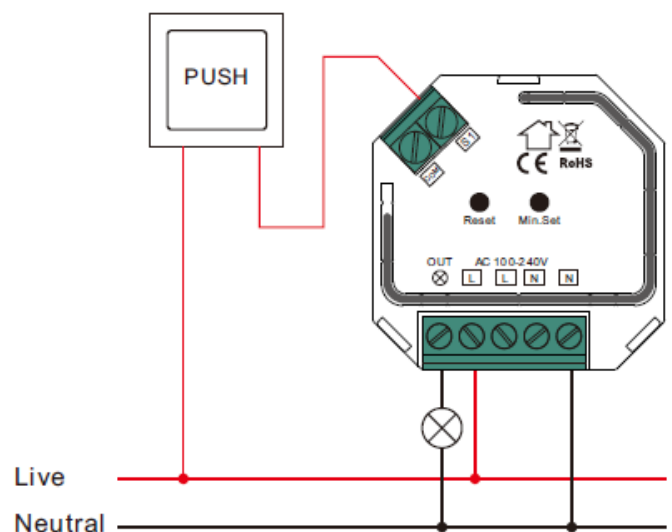
The Bypass is a device designed to work with the micro smart dimmer. It should be used in case of connecting LED bulbs or energy saving compact fluorescent lamps. The Bypass prevents flickering of the LED lights and glowing of the turned off compact fluorescent lamps. In the case of 2-wire connection, the Bypass allows to reduce minimum power of load required by the dimmer for correct operation. The Bypass provides powering of the dimmer in case of controlling the low loads of minimum power down to 3W (for $\cos\phi > 0.5$).

(2) 3-Wire Connection With Neutral Lead

With PUSH LV



With PUSH

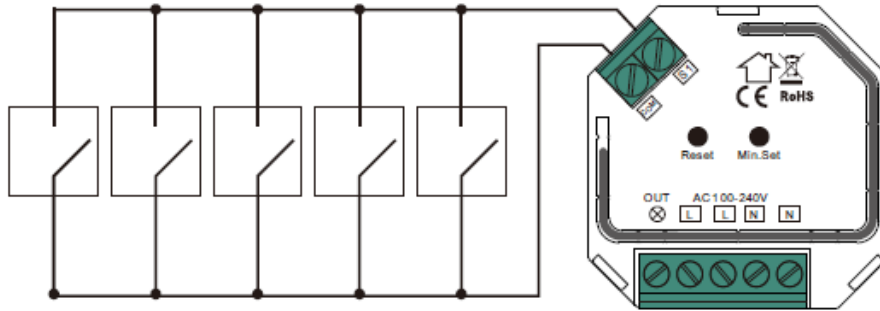


NOTE: Switch connected to the S1 terminal activates the basic functionality of the dimmer (turning the light on/off, dimming).

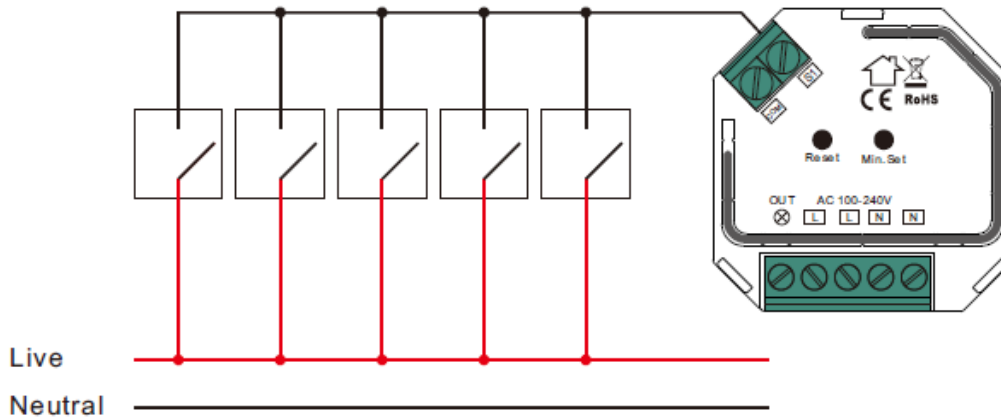
Bedienung / Operation

(3) Multiple Momentary or Push Switches Connection

With PUSH LV



With PUSH



This phase dimmer adopts leading edge dimming (forward phase control) or trailing edge dimming (reverse phase control), two versions are available for choosing, factory default version is trailing edge. Please make sure the connected loads support the control type you choose. Please refer to the user manual of the load or consult the supplier of the load.

Bedienung / Operation

Vom Gerät unterstützte ZigBee Cluster ZigBee clusters supported by the device

Input Clusters:

- 0 x 0000: Basic
- 0 x 0003: Identify
- 0 x 0004: Groups
- 0 x 0005: Scenes
- 0 x 0006: On/Off
- 0 x 0008: Level Control
- 0 x 0b05: Diagnostics

Output Clusters:

- 0 x 0019: OTA

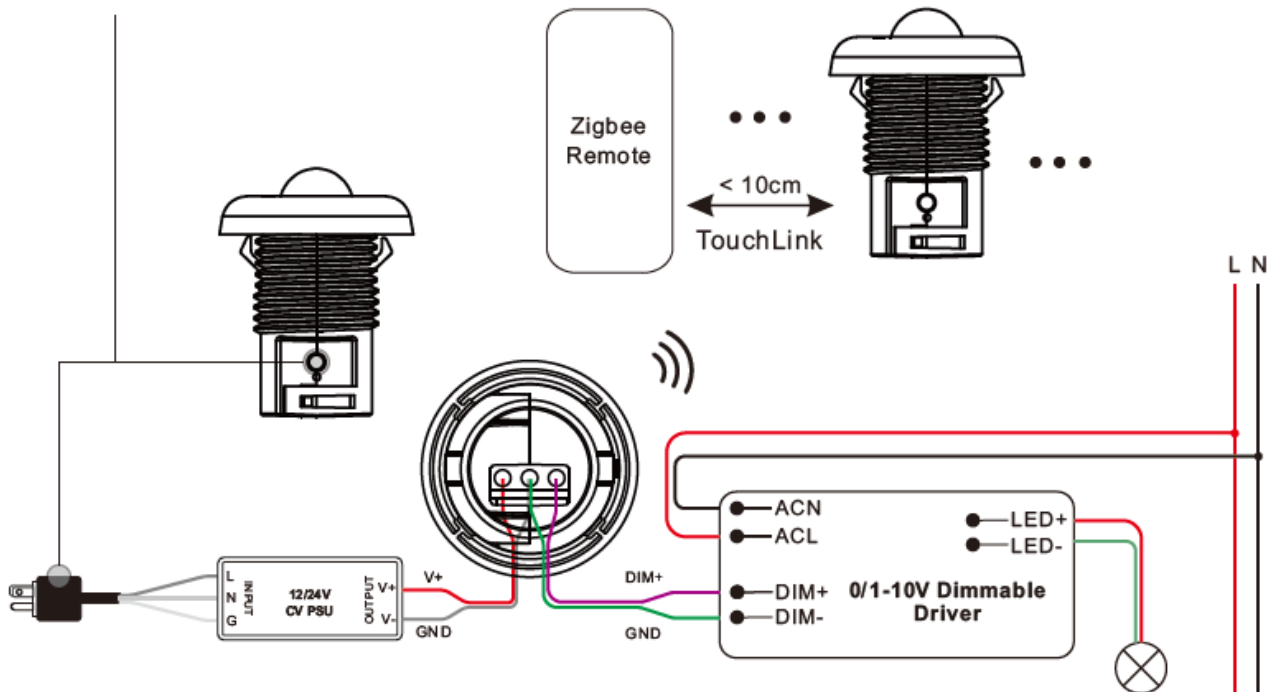
OTA Geräte unterstützen Firmware Updates über OTA und erlangen neue Firmware vom ZigBee Controller oder Hub alle 10 Minuten automatisch.

OTA devices support firmware updates via OTA and automatically receive new firmware from the ZigBee controller or hub every 10 minutes.

11. Ein Zigbee-Netzwerk einrichten und andere Geräte zum Netzwerk hinzufügen

Schritt 1: Drücken Sie 4 Mal kurz die "Prog."-Taste (oder schalten sie das Gerät 4 mal aus und wieder ein), damit das Gerät ein Zigbee-Netzwerk einrichten kann (verbundenes Licht blinkt zweimal), um andere Geräte zu erkennen und hinzuzufügen, 180 Sekunden Timeout, diesen Schritt wiederholen.

Step 1: Step 1: Short press "Prog." button 4 times (Or reset power of the device 4 times) to enable the device to setup a Zigbee network (connected light flashes twice) to discover and add other devices, 180 seconds timeout, repeat this step.



Schritt 2: Versetzen Sie ein anderes Lichtgerät oder einen drahtlosen Schalter in den Netzwerk-Kopplungsmodus und koppeln Sie es mit dem Netzwerk, siehe entsprechende Anleitung.

Schritt 3: Koppeln Sie weitere Beleuchtungsgeräte und Schalter mit dem Netzwerk, siehe entsprechende Anleitung

Schritt 4: Binden Sie die hinzugefügten Beleuchtungsgeräte und Schalter über Touchlink, so dass die Geräte über die Schalter gesteuert werden können. Siehe entsprechende Anleitung.

Step 2: Set another light device or wireless switch into network pairing mode and pair it, refer to corresponding manuals.

Step 3: Pair more light devices and switches to the network, refer to corresponding manuals.

Step 4: Bind the added light devices and switches through Touchlink so that the devices can be controlled by the switches, refer to corresponding manuals.

Hinweis:

- 1) Jedes hinzugefügte Lichtgerät kann mit maximal 30 hinzugefügten Schaltern gesteuert werden.
- 2) Jeder hinzugefügte Schalter kann maximal 30 hinzugefügte Lichtgeräte verbinden und steuern.

Note:

- 1) Each added light device can link and be controlled by max. 30 added switches.
- 2) Each added switch can link and control max. 30 added light devices.

12. OTA

Das Gerät unterstützt Firmware-Updates über OTA und bezieht neue Firmware vom Zigbee-Gateway oder Hub alle 10 Minuten automatisch.

12. OTA

The device supports firmware updating through OTA, and will acquire new firmware from zigbee gateway or hub every 10 minutes automatically.

13. Überprüfen ob das Gerät bereits zu einem Netzwerk hinzugefügt wurde oder nicht

Methode 1: Schalten Sie das Gerät ein. Wenn die LED-Anzeige leuchtet, wurde das Gerät noch nicht zu einem Netzwerk hinzugefügt, wenn die LED ausgeschaltet bleibt, wurde das Gerät bereits zu einem Netzwerk hinzugefügt.

Methode 2: Schalten Sie das Gerät ein. Wenn die angeschlossene LED ein- und ausgeblendet wird, wurde das Gerät noch nicht zum Netzwerk hinzugefügt. Wenn die angeschlossene LED dauerhaft leuchtet, wurde das Gerät bereits zu einem Netzwerk hinzugefügt.

13.How to Check Whether the Device already Added to a Network or not

Method 1: Power on the device, if LED indicator turns on, the device has not been added to a network, if LED indicator stays off, the device has already been added to a network.

Method 2: Switch the device on. If the connected dimmable 0-10 LED fades in and out, the device has not been added to the network. If the connected dimmable 0-10 LED is permanently lit, the device has already been added to a network.

14. Unterstützte Zigbee-Cluster

Das Gateway kann den Zigbee-Standardbefehl Simple Description request verwenden, um die von diesem Gerät unterstützten Cluster zu lesen.

14 Supported Zigbee clusters

The gateway can use the Zigbee standard command Simple Description request to read the clusters supported by this device.

Endpoint 1:

Input Clusters:

0x0000: Basic

0x0003: Identify

0x0004: Groups

0x0005: Scenes

0x0006: On/off

0x0100: zll commissioning

Output Clusters:

0x0019: OTA

0x0100: zll commissioning

Endpoint 2:

Input Clusters:

0x0000: Basic

0x0003: Identify

0x0400: illuminance measurement

Cluster	Attributes	Data type	Data description	Data default
0x0000	0x9000	0x20	How many times will the device search and join a Zigbee network, searching every 15 seconds. Valid value: 1~255 Default value is 2, which means searching 2 times, setting the value as 255 means always searching until the device is added to a network.	2
0x0000	0x9001	0x21	Light PWM Frequency Works after reset power of the device, the device that directly outputs PWM can be configured, DO NOT set the PWM frequency too high which will affect the dimming resolution.	3300
0x0000	0x9002	0xf1 (security key, 16bytes)	Install code For instance the returned value is 01 23 45 67 89 ab cd ef 01 23 45 67 89 ab cd ef App also displays 01 23 45 67 89 ab cd ef 01 23 45 67 89 ab cd ef	0x0123456789abcdef0123456789abcdef
0x0000	0x9003	0x21	Manufacturer id, Works after reset power of the device, Manufacturer id=0xffff means this attribute does not work, Manufacturer id is determined by SDK. Sunricher: 0x1224	0xffff
0x0000	0x8806	0x20	Dimming brightness curve, Works after reset power of the device, 0x00: linear, 0x0f: logarithmic with gamma value 1.5, 0x12: logarithmic with gamma value 1.8	0x00
0x0006	0x4003	0x30	Start up on off, Device status after power reset, this attribute is a Zigbee standard optional attribute, 0x00: off, 0x01: on, 0xff: status before power reset	0xff
0x0000	0x8903	0x21	Motion sensor daylight sensor lux threshold, 2 bytes, only when the detected lux is lower than the threshold, turning on the light is permitted, for instance 0x0000, this function does not work.	0x0000

0x0000	0x8904	0x20	<p>Motion sensor operation mode, 1 byte, 0x00: means auto mode, 0x01: means manual mode,</p> <p>Auto mode means that when a motion is detected, the device will output PWM according to the set brightness threshold, and delay time. PWM status needs to be reported to the gateway.</p> <p>Manual mode means that PWM output is controlled and determined by the gateway or the wireless switch, not associated with motion detection.</p>	0x00
0x0000	0x8905	0x20	<p>Motion sensor sensitivity setting, Works after reset power of the device, 1 byte, data range 0-15, 0 is the highest sensitivity, 15 is the lowest sensitivity.</p>	0x01
0x0000	0x8906	0x20	<p>Motion sensor microwave detection enabled or disabled, Works after reset power of the device, 1 byte, 0x00: disabled, 0x01: enabled</p>	0x01
0x0000	0x8907	0x20	<p>Configuration of whether to send ON/OFF command to the touchlink devices and binding devices, Works after reset power of the device, 0=do not send, 1=send</p>	0x01
0x0000	0x890c	0x20	<p>Configuration of whether to enable the brightness module, 0=disabled, 1=enabled</p>	0x01
0x0000	0x8902	0x21	<p>Light on time (the first delay time), Works after reset power of the device, When motion sensor mode is set as auto mode, and motion is detected, after the person leaves, light on time of the device, 2 bytes, unit is second, For instance 0x003c means 60 seconds.</p>	0x003c
0x0000	0x8908	0x21	<p>Configuration of the brightness value of PWM output when motion detected, this brightness value is controlled through PWM output working as PID closed loop control to achieve the constant light output. Value range is 0-1000LUX, 0LUX means this attribute is disabled, and PWM output when motion detected is not associated with the brightness value.</p>	0x0000
0x0000	0x8909	0x20	<p>Configuration of PWM output percentage when motion detected, Value Range is 0x00-0xfe, which means 0-100%, When configured PID closed loop control brightness LUX is 0, PWM output of the device is according to this value.</p>	0xfe

0x0000	0x890a	0x20	<p>After the light on time expires, the light status within the duration of 2nd delay time,</p> <p>Value range is 0x00-0xfe, which means 0-100%.</p>	0x00
0x0000	0x8901	0x21	<p>After the light on time expires, the duration of 2nd delay time,</p> <p>Value range is 0-65536S.</p>	0x003c
0x0000	0x890b	0x20	<p>After the 2nd delay time expires, the status of the light,</p> <p>Value range is 0x00-0xfe, which means 0-100%.</p>	0x00
0x0000	0x890D	0x21	<p>Linearity error ratio coefficient of LUX measurement: M</p> <p>Default value is 1000, which means 1000‰.</p> <p>When increase the value of M, LUX measurement value will be magnified linearly.</p> <p>When decrease the value of M, LUX measurement value will be minified linearly.</p> <p>For instance, modify M value as 1001, LUX measurement value will be magnified to 1.001 times.</p> <p>Modify M value as 500, LUX measurement value will be magnified to 0.5 times.</p>	0x03E8
0x0000	0x890E	0x29	<p>Fixed deviation of LUX measurement, this parameter data type is INT, i.e. 2 bytes signed shaping</p> <p>For instance, if we need to increase the measurement value by 100LUX, then this parameter value will be +100, i.e. 0x0064.</p> <p>If we need to decrease the measurement value by 100LUX, then this parameter value will be -100, i.e. 0xFF9C.</p>	0x0000

Hinweis:

Die Werte aller oben genannten proprietären Attribute können vom Zigbee-Gateway durch Schreiben von Attributen geändert werden.

Note:

The values of all above proprietary attributes can be modified by Zigbee gateway through the way of writing attributes.

Ändern Sie den Wert von Attributen über Bluetooth auf Ihrem Smartphone

Die Werte aller oben genannten proprietären Attribute können auch via, Bluetooth und unserem proprietäres Protokoll, über ein Smartphone geändert werden. Sie müssen eine APP "Sensor Tools" herunterladen und das Smartphone und das Gerät über BLE mit der APP verbinden. Die APP kann im APP Store und im Google Play Store heruntergeladen werden, indem Sie nach dem nach dem Stichwort "Smart Sensor Tools".

Bitte beachten Sie die folgenden Bedienschritte, um die Werte der Attribute zu ändern:

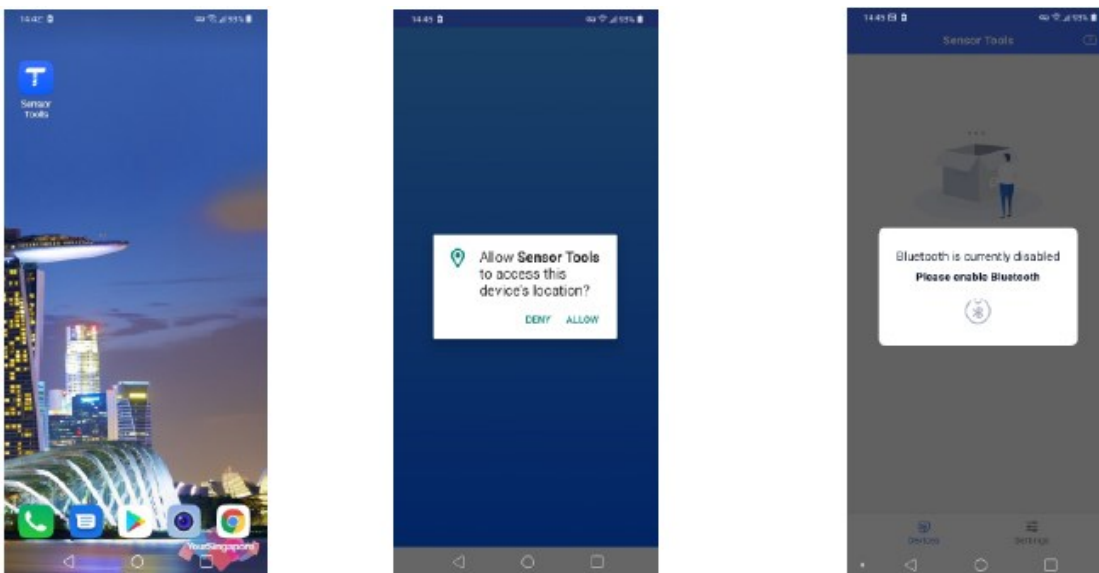
Modify Attributes' Value through Smart Phone Bluetooth

The values of all above proprietary attributes can also be modified by connecting a smart phone and the device through Bluetooth and our proprietary protocol.

You need to download a smart phone APP "Sensor Tools" and connect the smart phone and the device through BLE on the APP. The APP can be downloaded from APP Store and Google Play Store by searching the keyword "Smart Sensor Tools".

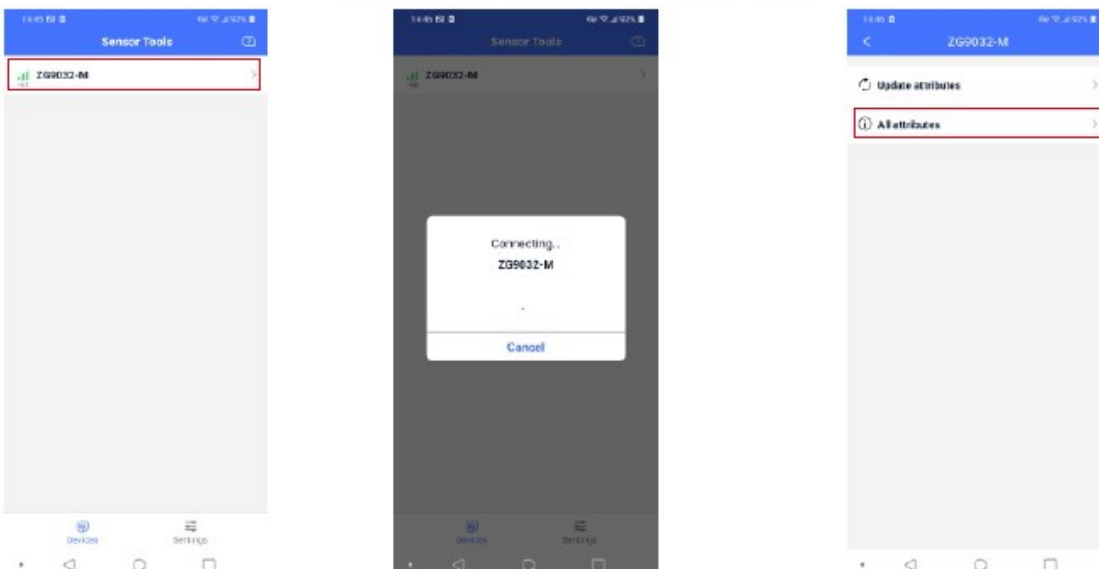
Please refer to the following operation steps to modify the attributes' value:

Step 1: Download the "Sensor Tools" APP and run it on the smart phone. Allow the APP to access Location and enable Bluetooth on the smart phone.

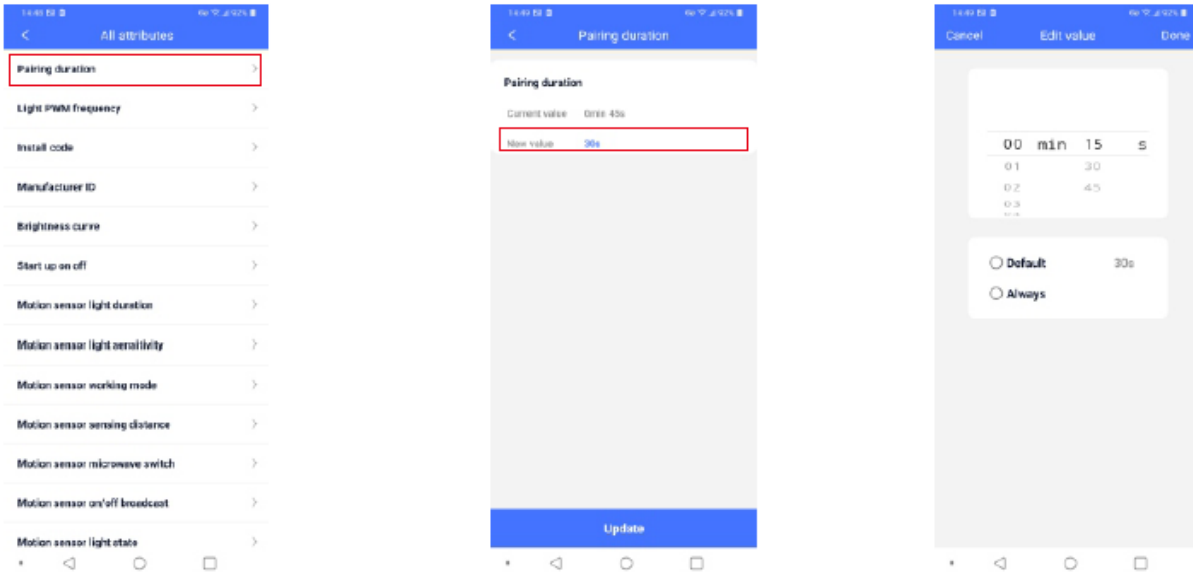


Step 2: Wire up the device and power on the device according to the wiring diagram.

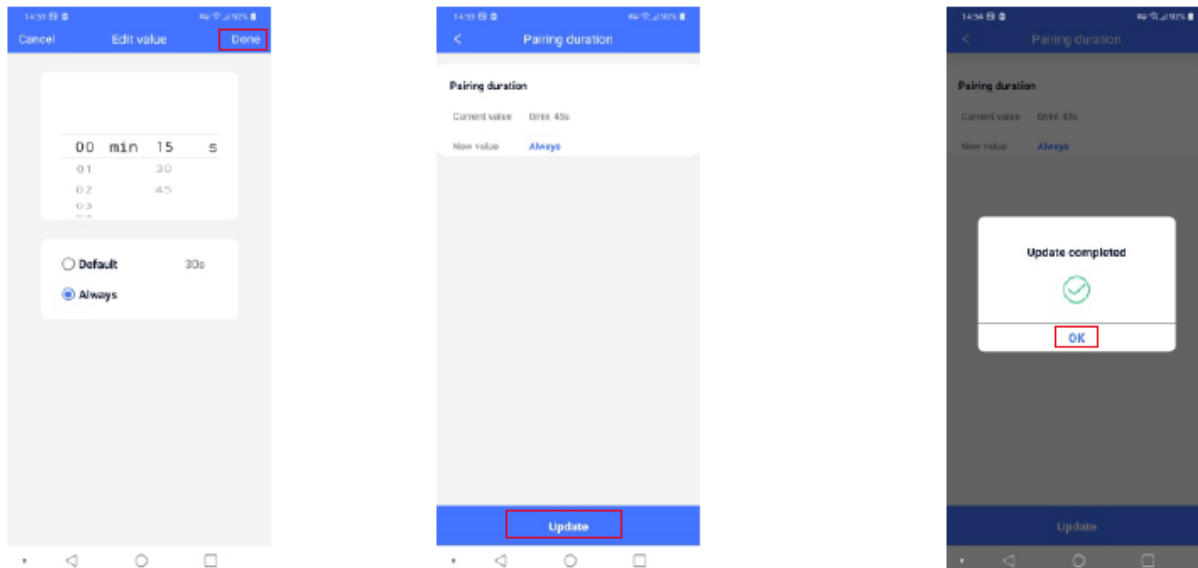
Step 3: The device will be discovered by the APP automatically, then tap the device name to connect it to the smart phone through APP. Once connected successfully, all attributes of the device can be accessed.



Step 4: Tap **"All attributes"** to access the list of all attributes. Then tap the name of an attribute to select it and enter modification interface, for instance **"Pairing duration"**. Then tap **"New value"** to enter value edit page.



Step 5: Once a new value is set, tap **"Done"** at the upper right corner. Then tap **"Update"** button to update to the new value. Then tap **"OK"**.



Step 6: Once an attribute is modified successfully, you can set another attribute following above steps. The modified values of some attributes work after power reset of the device, please refer to above detailed attributes' information in the table.

Alle verfügbaren Attribute wie folgt:

1. **Pairing-Dauer:** die Zeit, die der Pairing-Modus des Zigbee-Netzwerks dauert, Wertebereich: 15S - 63min 30S - Immer, Die Werkseinstellung ist 30S.
2. **Licht-PWM-Frequenz:** Wertebereich: 0-65535, die Werkseinstellung ist 3300.
3. **Installationscode:** Dieses Attribut kann nicht geändert werden.
4. **Herstellerkennzeichen:** Wertebereich: 0x0000-0xFFFF, Sunricher, Philips, Werkseinstellung ist 0xFFFF.
5. **Helligkeitskurve:** Wertebereich: Linear, Gamma-Logistik 1,5, Gamma-Logistik 1,8, Werkseinstellung ist Linear.
6. **Start up on off:** Wertebereich: Der letzte Zustand, Ein, Aus, die Werkseinstellung ist "Der letzte Zustand".
7. **Bewegungsmelder Lichtdauer:** Wertebereich: 0h 0min 0s - 18h 12min 15s, die Werkseinstellung ist 5s.
8. **Lichtempfindlichkeit des Bewegungssensors:** Wertebereich: 0 - 65535, Werkseinstellung ist 0.
9. **Arbeitsmodus des Bewegungssensors:** Wertebereich: Automatisch, Manuell, Werkseinstellung ist Automatisch.
10. **Erfassungsbereich des Bewegungssensors:** Wertebereich: 00-15, Werkseinstellung ist 01.
11. **Bewegungssensor-Mikrowellenschalter:** Wertebereich: Ein, Aus, Werkseinstellung ist Ein.
12. **Bewegungssensor ein/aus Sendung:** Wertebereich: Ein, Aus, Werkseinstellung ist Ein.
13. **Bewegungssensor Lichtstatus:** Wertebereich: Ein, Aus, Werkseinstellung ist Ein.
14. **Bewegungssensor IN PWM-Helligkeit:** Wertebereich: 0-1000, Werkseinstellung ist 0Lux.
15. **Bewegungssensor IN PWM-Ausgang:** Wertebereich: 0-254, werkseitige Voreinstellung ist 254.
16. **Bewegungssensor LEAVE PWM-Ausgang:** Wertebereich: 0%-100%, Werkseinstellung ist 0%.
17. **Bewegungssensor LEAVE Verzögerung:** Wertebereich: 0h 0min 0s - 18h 12min 15s, Werkseinstellung ist 0s.
18. **Bewegungssensor PWM-Ausgang nach Verzögerung:** Wertebereich: 0%-100%, die Werkseinstellung ist 0%.
19. **Koeffizient des linearen Fehlerverhältnisses der LUX-Messung: Wertebereich:** 100‰ - 10000‰, die Werkseinstellung ist 1000‰.
20. **Feste Abweichung der LUX-Messung:** Wertebereich: -32768~32767, Werkseinstellung ist 0Lux.

Hinweis: Bitte beachten Sie die obige Tabelle der proprietären Attribute im Abschnitt "proprietäre Attribute" für detaillierte Informationen zu den Attributen.

All Available Attributes as Follows:

1. **Pairing duration:** the time that Zigbee network pairing mode lasts, value range: 15S – 63min 30S – Always, factory default is 30S.
2. **Light PWM frequency:** value range: 0-65535, factory default is 3300.
3. **Install code:** This attribute can not be modified.
4. **Manufacture ID:** value range: 0x0000-0xFFFF, Sunricher, Philips, factory default is 0xFFFF.
5. **Brightness curve:** value range: Linear, Gamma logistics 1.5, Gamma logistics 1.8, factory default is Linear.
6. **Start up on off:** value range: The last state, On, Off, factory default is "The last state".
7. **Motion sensor light duration:** value range: 0h 0min 0s – 18h 12min 15s, factory default is 5s.
8. **Motion sensor light sensitivity:** value range: 0 – 65535, factory default is 0.
9. **Motion sensor working mode:** value range: Automatic, Manual, factory default is Automatic.
10. **Motion sensor sensing distance:** value range: 00-15, factory default is 01.
11. **Motion sensor microwave switch:** value range: On, Off, factory default is On.
12. **Motion sensor on/off broadcast:** value range: On, Off, factory default is On.
13. **Motion sensor light state:** value range: On, Off, factory default is On.
14. **Motion sensor IN PWM brightness:** value range: 0-1000, factory default is 0Lux.
15. **Motion sensor IN PWM output:** value range: 0-254, factory default is 254.
16. **Motion sensor LEAVE PWM output:** value range: 0%-100%, factory default is 0%.
17. **Motion sensor LEAVE delay:** value range: 0h 0min 0s – 18h 12min 15s, factory default is 0s.
18. **Motion sensor PWM output after delay:** value range: 0%-100%, factory default is 0%.
19. **Linear error ratio coefficient of LUX measurement:** value range: 100‰ - 10000‰, factory default is 1000‰.
20. **Fixed deviation of LUX measurement:** value range: -32768~32767, factory default is 0Lux.

Note: please refer to above proprietary attributes table in the part "proprietary attributes" for detailed attribute information.