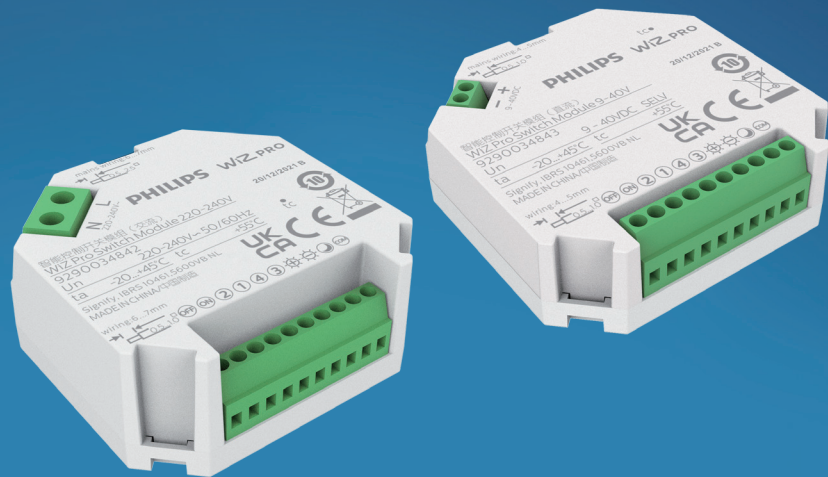


PHILIPS

Switch module

Connected by
WiZ Pro



Design-in Guide

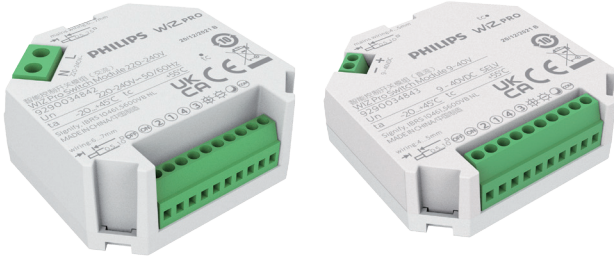
Philips WiZ Pro Switch Module

February 2022

Contents

Introduction to this guide	3
Information and support	3
Determine which documents contain what information	3
Warnings and instructions	4
Safety warnings and installation instructions	4
Philips Design-in support	4
Introduction to Philips WiZ Pro switch module	5
Introduction	5
Wireless Technology	5
Electric and RF design in	6
How to... Select an appropriate WiZ Pro switch module	6
Wiring and installation	6
RF design in	7
Antenna position	7
Switch housing	8
Design with SELV	8
Wireless control	8
Commissioning process	9

Introduction to this guide



Thank you for choosing the Philips WiZ Pro switch module. In this guide you will find the information required to design this switch module into a wall panel or related product as well as valuable hints and tips.

Information and support

If you require any further information or support please consult your local Philips office or visit our website: www.wizconnected.com

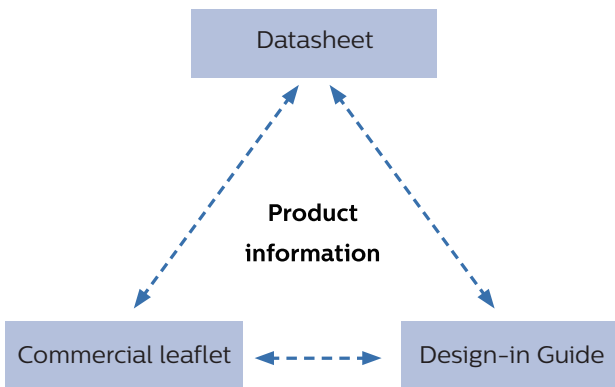
Determine which documents contain what information

In order to provide information in the best possible way, Philips' philosophy on product documentation is the following.

- **Commercial leaflet** contains product family information
- **Datasheet** contains the driver/accessory specification
- **Design-in guide** describes how to be designed-in the products

All these documents can be found on the page: www.lighting.philips.com.sg/oem-asia/support/technical-downloads

If you require any further information or support please consult your local Philips office.



Warnings and instructions



Warnings:

- Avoid touching live parts!
- Do not use switch modules with damaged housing and/or connectors!
- Do not use switch modules with damaged wiring!

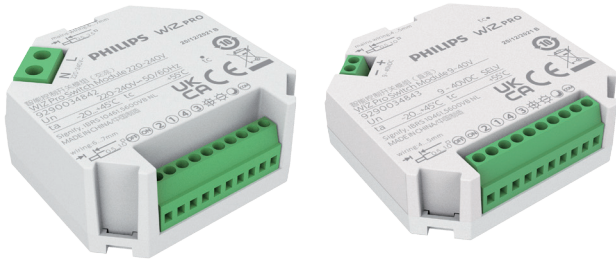
Safety warnings and installation instructions to be taken into account during design-in and manufacturing

- Do not use damaged or defective connectors or housings
- Do not use damaged products
- Disconnect the power supply before any maintenance operation or wiring operation
- Do not wire switch module when the mains voltage is connected. Refer to datasheet on the details of connection
- AC switch module (WiZ Pro Switch Module 220-240V, 929003484281) is intended to use with AC switch panel, which is double insulated for safety consideration
- AC switch module (WiZ Pro Switch Module 220-240V, 929003484281) must work with mains while DC switch module (WiZ Pro Switch Module 9-40V, 929003484381) must work with SELV DC power supply
- The Philips WiZ Pro switch modules are intended for indoor use and should not be exposed to the elements such as snow, water and ice. It is the installer's responsibility to prevent exposure
- Switch module relies upon the switch panel enclosure for protection against accidental contact with live parts

Philips Design-in support

Is available; please contact your Philips sales representative.

Introduction to Philips WiZ Pro switch module



Introduction

Philips WiZ Pro switch module is designed to operate with self-reset switch panel. It can provide features as accessory in WiZ Pro system such as light on/off, dim up/down, night light mode and 4 favorite scenes by connecting different pins. It enables simple, cost effective wireless lighting system for energy saving and comfort. Advanced design of the switch module helps to build a reliable, scalable and standardized connected lighting with different functionalities from simple wireless dimming to cloud based operations, enable the traditional switch to access WiZ Pro eco system.

Wireless Technology

Switch module is a remote controller unit for WiZ lights (and modules). The unit controls one or several lights by broadcasting a Wi-Fi action frame directly to the lights. No Wi-Fi router is needed for the unit to operate.

Electric and RF design in



How to... Select an appropriate WiZ Pro switch module

Selecting appropriate switch module mostly depends on the type of input power. There are two types of switch module based on input power variation, AC and DC. User could select the appropriate switch module type according to the power facility on site.

If there is any concern about this, please contact your Philips sales representative.

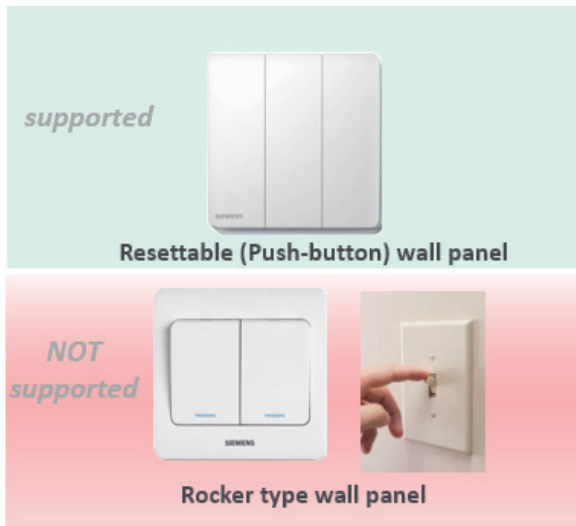


Wiring and installation

This switch module could be wired with the resettable wall switch panel (push-button type of switch panel, only activates when you press, then resets to its previous status after you release it).

There are 9 inputs on the switch modules, so it can be wired with a wall switch panel (multiple wall panels) where you have up to 9 positions.

Note: there is no output on the switch module to illuminate the power on/off indicator on some of the wall switch panels.



Every time when the resettable wall switch panel is being pressed by user, switch module will sense the change of status from the wall switch panel, and send pre-configured command (ON, OFF, Dim up, Dim Down, etc.) to the room to control all the WiZ lights in that room. The interval time between two presses should be more than 200ms.

Note 1: for the rocker type wall switch panel, since this type of panel will stay at the position after you release it, this will draw the current from switch module all the time and increase the power consumption, thus the switch module doesn't support setup with rocker type wall switch panels

Note 2: The cable length connected to switch module output connectors is recommended to be 20cm. Too long cable length might lead to malfunction of switch module.

Note 3: For wiring cable specification, please approach datasheets for details.

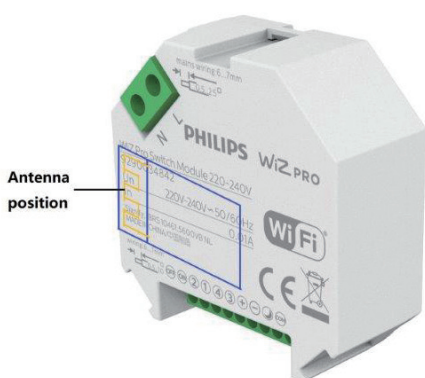
RF design in

This chapter describes the application of RF (radio frequency) aspects of the switch module.

To facilitate design-in of switch module, the critical RF application scenarios of the switch module are set out in this section. In Philips' product design phase all possible precautions have been taken to ensure Wi-Fi signal as good as possible. The switch module should be set in an expected position to ensure the optimum performance of the system. The typical control distance (between switch module and the WiZ light to be controlled) is 15 meters (line of sight), it may vary depending on many factors e.g. switch structure and field setup, please consider following hints for optimal RF performance.

Antenna position

The internal antenna position is illustrated as left image, keep the switch module antenna close to switch panel as much as possible. Note: it is also recommended to keep this clearance when there is metal structure (e.g. metal water pipes, metal wall-box) in the building.





Plastic housing



Metal housing

Switch housing

Inter switch RF signal should be considered for different housings:

- 1). Plastic housings. There is no impact for RF signal transportation, the plastic housings are transparent for RF signal.
- 2). Metal housings. Ensure there is 20mm gap between metal shielding and switch module antenna.

Besides housing design, the input wiring position is also a factor for signal transmission. For both plastic and metal housing, we recommend to put all the input cables behind the switch module to guarantee a good RF performance in front of switch module.

Design with SELV

The switch modules are of built-in control gears. They rely on the outlet box and switch panels installation for protection against accidental contact with live parts. DC switch module must be powered with SELV power supply and it is compatible with both mains rated or SELV DC rated switch panels.

Meanwhile, for AC switch module, it is compatible with only mains rated switch panels.

In particular, special attention should be paid when the switch module is installed within metal outlet box and/or with metal switch panel. Additional insulation protection should be necessary.

Wireless control

WiZ Pro switch module use Wi-Fi to control the luminaires. The control interfaces may be website, app...

In order to gain the full control and features of the controller, it must firstly connect the switch module to WiZ Pro system by pairing to WiZ app. There is a support page in the WiZ app so that user is able to find what they need. Also, you may learn more about WiZ from the website:

<http://www.wizconnected.com/en>

<https://www.wizconnected.com/en/pro/get-started/>

Commissioning process

Without Pairing

A non-paired WiZ light will simply bind to the first switch module control it receives a message from, installer just need to click ON button of wall panel 3 times in the period 3-10s after light is power on. Then light will only listen to that switch module.

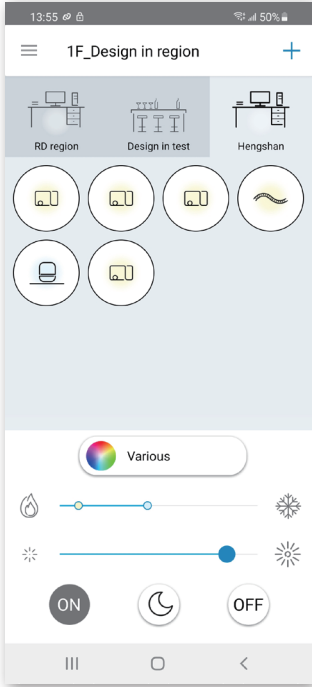
In case an installer wants to replace the switch module associated to a light by a new switch module, user need to WiZclick the light one time and other process is the same: click ON button of wall panel 3 times in the period 3-10s after light is power on. Then binding process could be done.

In case a installer wants to remove the switch module from the light it associates with, he/she needs to pair the light into app and then remove it from home. Then light will not listen to the accessory.

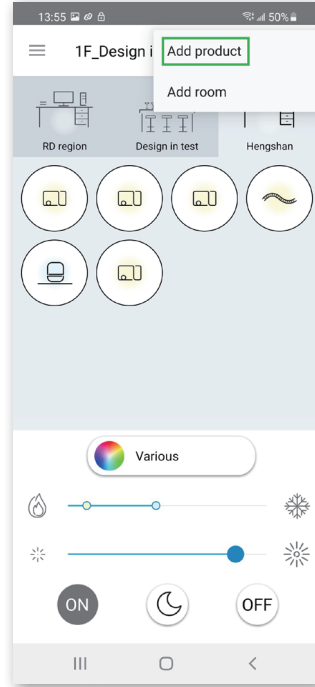
Note: the commissioning way of "Without Pairing" only provides limited customization of functions for the lights and will be erased once the lights are connected to the Cloud

With Pairing

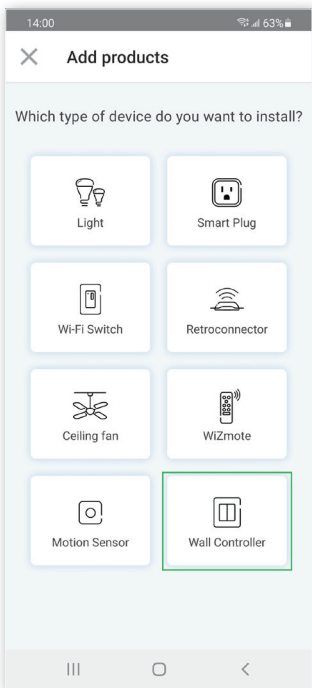
The WiZ Pro system is designed to provide advanced light control on lights that have been paired and configured using the WiZ app. That means that the switch module needs to be bound to the WiZ system as well. The switch module binding to paired lights is a simple process, done by using the same WiZ App. The user should follow the instructions on the app for binding the WiZ Wi-Fi switch module.



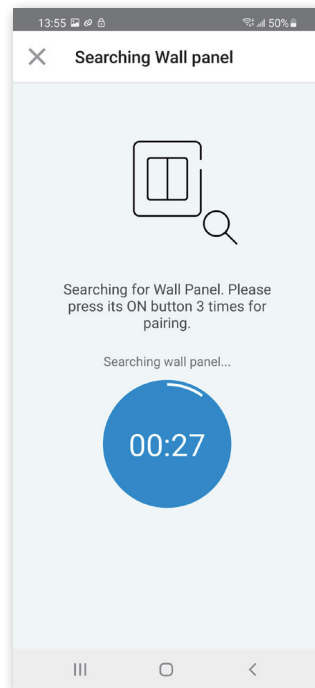
1. Select the room with the light(s) to control.



2. Tap "Add product".



3. Tap "Wall Controller".



4. Press ON button on Switch Panel during the counting down interface.



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17 February 2022
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