

14330411

Wired Inline Switch - PIR

Technical Datasheet

Original Product

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I. Products Overview

What is Original Wired Switch?

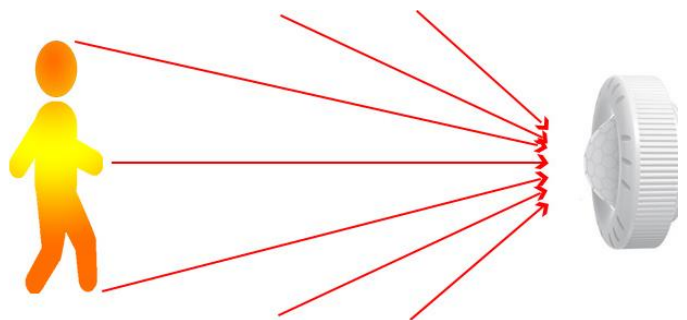
An Original wired switch is a control device directly connected to the lighting system via physical cables. Unlike wireless switches, it relies on electrical wiring to transmit commands for turning lights on/off, dimming brightness, or adjusting color temperature. It's ideal for environments where a reliable, hardwired connection is preferred.

What is Original Wired Inline Switch?

The Original Inline Switch is a wired switch installed between the power source (LED Driver or Distributor) and the LED light, acting as a bridge for individual control, providing a simple and effective way to turn the light on or off without affecting other lights in the system.

What is Original Wired Inline PIR Switch?

The Original Wired Inline PIR Switch is a motion-sensing switch that automatically turns lights on when it detects movement, such as when people approach, and off when there is no motion. It offers hands-free operation, easily integrates into existing wired lighting systems, and helps conserve energy by ensuring lights are only on when needed. Ideal for hallways, bathrooms, and kitchens.



Applications:

Recessed or surface-mounted under cabinets or outside cabinets.



II. Product Code

The descriptions in this document are applicable to the following products only:

Original Wired Inline PIR Switch (Kernel Series).

Item Code	Input Voltage	Drill Hole	Control Method	Dimension/mm
14330411	12V/24V DC	Surface-mounted, \varnothing 10mm hole for wiring	PIR. Two detectors. With day/night sensor.	65*13*9
14330802	12V/24V DC	Surface-mounted, \varnothing 10mm hole for wiring	PIR. Two detectors. Without day/night sensor.	65*13*9
14330902	12V/24V DC	Surface-mounted, \varnothing 10mm hole for wiring	PIR. Single detector. Without day/night sensor.	65*13*9

III. Features

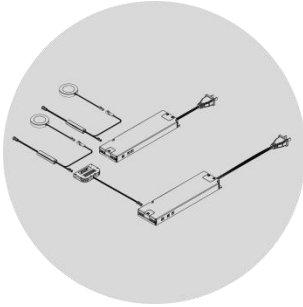
The Ariginal “Kernel” Wired Inline Switch unlocks endless connection possibilities, empowering users to explore and discover their own way of configurations.

A switch with infinite connection gameplays.

Its main features include:

❶ A Switch that bridges power and light.

Two connectors, one for power, one for lighting.



The Ariginal “Kernel” Series Wired Inline Switch features two distinct connectors: one connects to the power source, while the other links directly to your LED lights, like a bridge to joint the two electrical parts.

With the built-in sensor positioned between the two connectors, Kernel allows you to control each light individually, providing precise and customizable lighting management for any environment.

❷ Automatic smart control.

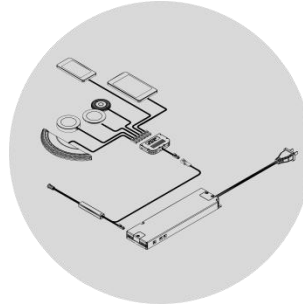
It works without noticing.



The PIR sensor offers automatic smart control, activating the lights as soon as it detects movement, such as when someone approaches, and turning them off when no motion is detected. It operates silently and effortlessly, providing hands-free lighting control without the need for

❸ There is always a new gameplay.

Get power from LED Driver, distributor or more.

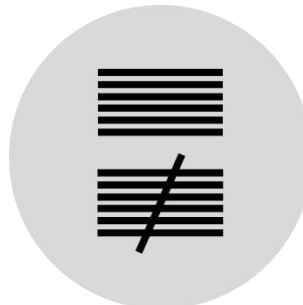


With the Ariginal Kernel Wired Inline Switch, you can tap into a world of possibilities. Its power connector effortlessly connects to a variety of sources—LED drivers, distributors, receivers, and beyond. This adaptability empowers you to configure your lighting system in innovative ways, ensuring your setup is as dynamic and versatile as your imagination.

Users can continually discover and develop new gameplay and innovative configurations for their lighting systems.

❹ Optional control logic.

Sync, or async, it's up to you.

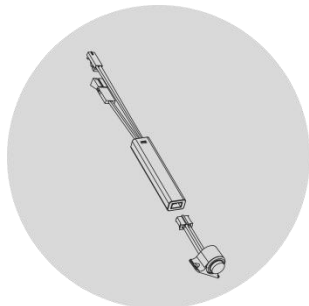


With the Ariginal Kernel Wired Inline Switch, you have the power to choose how your lighting operates. Opt for synchronized control, allowing all lights to turn on, off, or adjust brightness simultaneously with a single Kernel unit. Alternatively, use distributors to manage your lights

manual switches or constant attention. It's energy efficient, working in the background without you having to notice.

5 Detachable body and connectors.

Installation is markedly simplified.



“Kernel” features a detachable design for its processor body, detector, power connector, and LED connector. This modularity simplifies installation, allowing users to easily push wires through wood panels and other surfaces without hassle.

Each component can be easily detached and reconnected, exemplifying our vision to provide simple, intuitive lighting solutions that make your setup straightforward and user-friendly.

7 Aesthetics is brought to a higher level.

The detector is so small that it does the job without noticing.



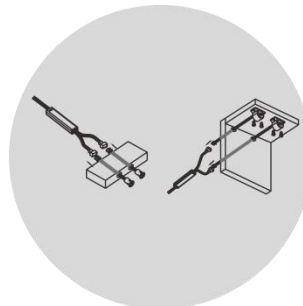
“Kernel” elevates your lighting aesthetics with its discreet design, thanks to its incredibly compact detector that seamlessly integrates into any environment without drawing attention.

This minimalist approach allows you to enjoy the

asynchronously, giving you the flexibility to control each light independently at different times.

6 Optional mounting type.

Recess or surface mounting, simultaneously supported.



The Original Kernel Wired Inline Switch provides flexible mounting options to suit your preferences.

Recessed mounting enhances aesthetics by allowing the switch to blend seamlessly into your space, creating a clean and unobtrusive look.

On the other hand, surface mounting is designed for ease of installation, made possible by an additional surface-mounting base included in the package.

Whether you prioritize style or simplicity, Kernel has you covered, allowing you to achieve the perfect balance in your lighting setup.

8 One detector or two detectors, optional.

Choose the model to fit your scene.



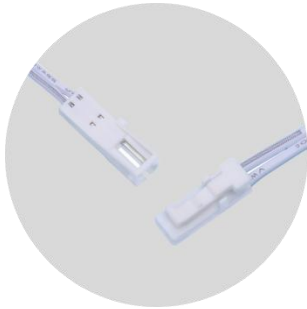
The Original “Kernel” PIR sensor offers the option to use one or two detectors, allowing you to place two detectors in different locations to control the same lights.

This flexibility ensures optimal motion detection

functionality of advanced lighting control while maintaining a clean, uncluttered look in your space, enhancing the elegance without compromise.

9 Plug and Play.

Disconnect and reconnect the power and light as many times as you like.



“Kernel” embraces a user-friendly design with its plug-and-play functionality. You can easily disconnect and reconnect the power and light whenever you need, allowing for effortless adjustments or maintenance without hassle.

The universal Dupont connector adopted by “Kernel” realizes seamless compatibility with third-party LED drivers and LED lights, extending your choices and reducing your inventory.

coverage across a larger area, providing efficient and convenient lighting control wherever it's needed.

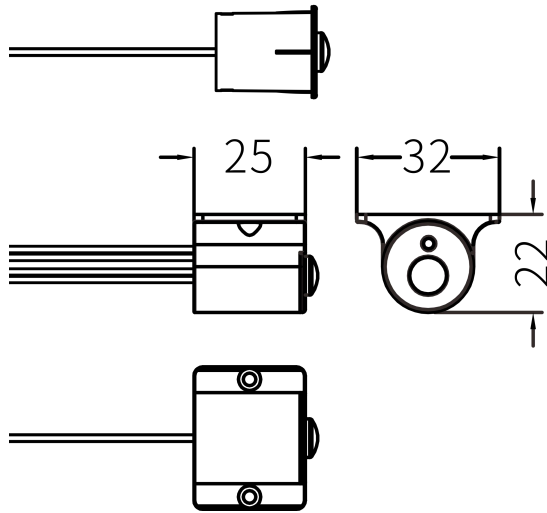
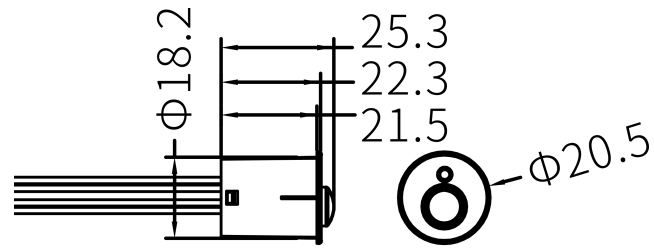
10 Works with both 12V and 24V.

One switch handles both 12V and 24V systems.



“Kernel” is designed for ultimate convenience, allowing you to use a single switch for both 12V and 24V lighting systems. This compatibility eliminates the need for multiple switches, so whether you're working with a 12V setup today or fitting with a 24V system in the future, you can rely on the same Kernel switch to provide consistent performance.

IV. Dimensions & Structures



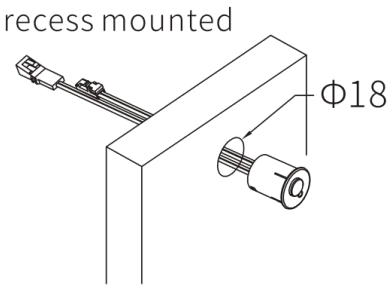
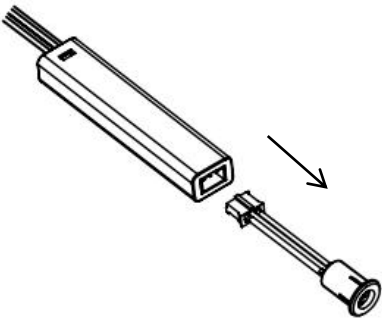
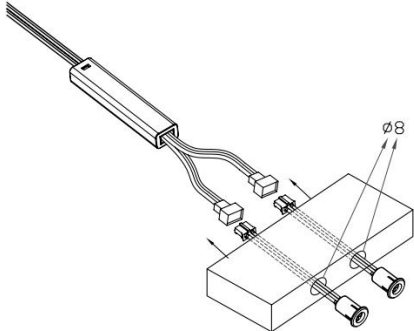
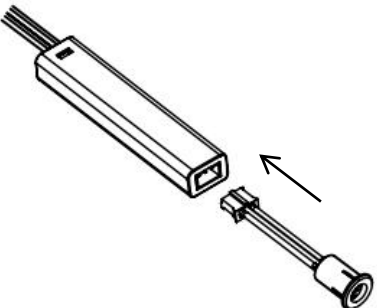
No.	Picture	Structure name
1	See above	Sensor detector
2	See above	Wire (detector to sensor body, detachable)
3	See above	DuPont male connector (connect LED driver)
4	See above	DuPont female connector (connect LED light)
5	See above	Wire (sensor body to power and light)
6	See above	Sensor body

V. Specifications

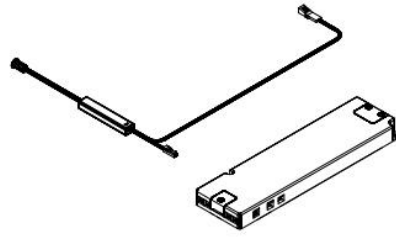
Parameter	Value
Input voltage:	12VDC/24VDC, both supported
Output voltage:	12VDC, 24VDC, both supported
Output current:	3A max.
Static working current:	6mA
Functions:	When people approach, it turns the lights on.
Detection distance:	1~3 meter
Detection angle:	100 degree
Time delay:	45±5 seconds
Installation:	Recessed/Surface-mounted, optional
Waterproof rating (IP)	IP20
Dimensions (sensor body):	65*13*9mm
Dimensions (sensor detector):	Φ20.5*25.3mm
Dimension (drilling hole)	Φ18mm for the detector; Φ18mm for the wiring.
Connection cable length (to detector)	1000mm
Connection cable length (to power)	1000mm
Connection cable length (to lamp)	1000mm
Connection cable assembling	Wire (detector to sensor body) is detachable; Wire (sensor body to power and light) is pre-assembled in factory.
Materials:	Plastic
Product color:	Customizable, black typ.
Operating temperature (C °)	-20~45 °C
Warranty period:	5 years

VI. Installation

How to install (recess) Original Wired Inline Dual-Door Switch?

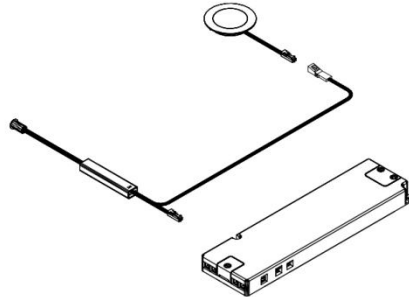
No.	Picture	Structure name
Step 1:	Drill the Hole 	Using a drill, create a hole through the back panel of the cabinet or wood panel where the wire will pass through. The hole should have a diameter of 18mm to accommodate the wire and sensor detector comfortably.
Step 2:	Detach the Wire (Detector to Sensor Body) 	Carefully detach the detachable wire that connects the sensor detector to the sensor body. This step makes it easier to pass the wire through the drilled hole and allows you to handle the wire more efficiently during installation.
Step 3:	Push the Wire and Detector Through the Panel 	From the front of the cabinet panel, push the wire and detector through the hole toward the back. Ensure that the detector is positioned on the front side of the panel, as this will detect the hand swipe. You can use a thin rod or push tool to help guide the wire through the hole if necessary.
Step 4:	Reattach the Detachable Wire 	Once the wire and detector are in place, reattach the detachable wire to connect the sensor detector to the sensor body. This should be done securely to ensure proper function and avoid any loose connections.

Step 5: Connect the DuPont Male Connector to the LED Driver



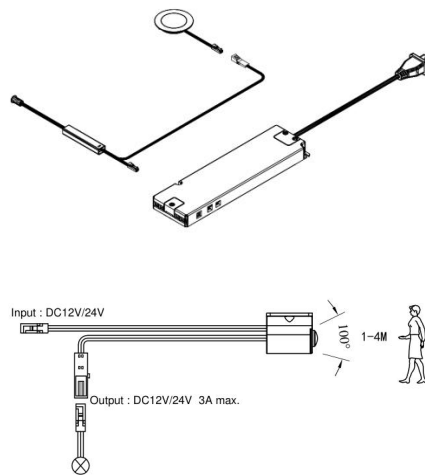
Now, take the DuPont male connector and connect it to the LED driver. This connection ensures that the switch will be able to control the power to the LED lights. Ensure that the connection is snug and secure.

Step 6: Connect the DuPont Female Connector to the LED Light



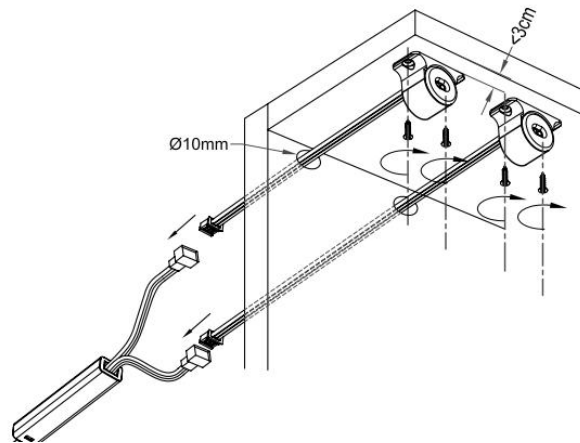
Next, take the DuPont female connector and plug it into the LED light. This completes the power circuit, allowing the PIR switch to control the light's on/off.

Step 7: Power Up and Test the Sensor



Finally, connect the power supply and turn on the system. Test the Ariginal Wired Inline PIR Switch by walking towards it. The lights will automatically turn on when you're within its sensing range (1 - 4m, 100 degrees) and will turn off after 45 seconds when you walk away. Ensure the sensor is working properly and that the light responds to your movements.

How to install (surface-mounting) Original Wired Inline Dual-Door Switch?



Step 1: Drill the Hole

Using a drill, create a hole through the back panel of the cabinet or wood panel where the wire will pass through. The hole should have a diameter of 10mm to accommodate the wire and sensor components comfortably.

Step 2: Screw the Mounting Base

Screw the mounting base onto the underside of the wood panel or desired mounting surface. Ensure the base is firmly attached and aligned. The distance between the detector to the edge of the panel should be less than 3cm.

Step 3: Detach the Wire (Detector to Sensor Body)

Detach the detachable wire that connects the sensor detector to the sensor body to make it easier to route the wires through the mounting bracket.

Step 4: Route the Cables Through the Mounting Bracket

Carefully route the cables through the mounting bracket. Ensure that the cables are not pinched or damaged during this step.

Step 5: Clip the Mounting Bracket into the Mounting Base

Clip the mounting bracket into the mounting base. They will automatically lock into place, securing the sensor in position.

Step 6: Reattach the Wire and Connect

Reattach the detachable wire between the sensor detector and sensor body. Then, connect the DuPont male connector to the LED driver and the DuPont female connector to the LED light.

Step 7: Power Up and Test

Once everything is connected, power up the system and test the sensor by approaching it to turn the light on and walking away to turn the lights off.

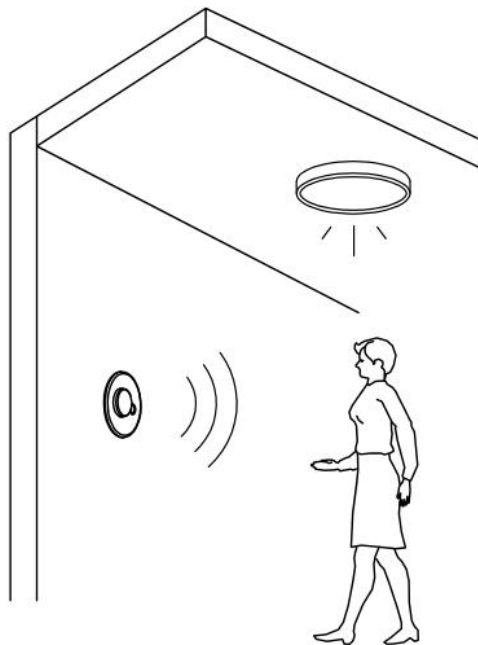
Additional Tips:

- Positioning the Sensor: Make sure the sensor detector is positioned in a location where it can easily detect hand movements, such as near the edge of the cabinet or furniture panel.

- **Wire Management:** Use cable clips or zip ties to neatly organize any excess wires behind the panel, ensuring that everything stays tidy and secure.
- **Testing Before Final Assembly:** It's always a good idea to test the connections and functionality of the switch before fully assembling or securing everything in place.
- **Installation Position:** Place the sensor where it can detect movement effectively. Avoid placing it behind objects or in corners where movement may not be detected.

VII. Usage

The Original Wired Inline PIR Switch uses motion sensing to automatically control the lights. This guide explains how to use the PIR sensor for optimal performance.



1. Activating the Lights:

- As you move into the sensor's detection range (1 – 4 meters, 100 degrees), the lights will automatically turn on.
- The sensor detects your movement and triggers the light without needing to manually switch it on.

2. Deactivating the Lights:

- After you walk away and no further motion is detected, the lights will turn off automatically after a set time delay (45 seconds by default).
- This ensures that the lights are only on when necessary, saving energy.

3. Adjusting the Time Delay:

- The time delay is preset, but can be customized to suit your needs. It determines how long the lights stay on after the last detected motion before they turn off.
- The typical delay is 45 seconds, but this may vary depending on the model or settings.

Maintenance and Care:

- Keep the sensor clean and free from dust or debris, which could affect its motion detection capabilities.
- Regularly check that the sensor is aligned properly to cover the area you want to monitor.

Troubleshooting:

- Light Doesn't Turn On: Ensure the sensor is within the correct range of the movement and that the area is not obstructed.
- Light Doesn't Turn Off: Check that the sensor is detecting no further motion. If the time delay setting is incorrect, adjust it to your preference.

Summary:

The Original Wired Inline PIR Switch provides hands-free, energy-efficient lighting control. It automatically turns the lights on when motion is detected and off after a set time delay when there is no further movement, offering seamless operation for a wide range of applications like hallways, bathrooms, and kitchens.

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