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SELF ELECTRONICS HZK218C

Electronic IR Sensor Switch HZK218B User Manual

Model: HZK218C | Brand: SELF ELECTRONICS

INTRODUCTION

The SELF ELECTRONICS HZK218B is an electronic relay equipped with an infrared (IR) sensor, specifically designed for automated lighting control in cabinets and similar enclosures. This device intelligently switches connected equipment on or off based on the opening or closing of a door, providing convenience and energy efficiency. It supports various loads up to 250W and can be integrated into both mains voltage and low voltage LED systems.



Main view of the HZK218B Electronic IR Sensor Switch with its integrated infrared sensor.

SAFETY INFORMATION

Please read all safety instructions carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect power at the circuit breaker before installing or servicing the device.
- Installation should be performed by a qualified electrician in accordance with all local and national electrical codes.
- Do not exceed the maximum load capacity of 250W.
- Ensure proper insulation and wiring connections to prevent short circuits.
- Keep the device away from water and excessive moisture.
- Do not attempt to disassemble or modify the device.

PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- 1 x HZK218B Electronic IR Sensor Switch with integrated sensor and cable
- Mounting screws (as shown in image)



Incluye
tornillos para montaje

Including
mounting screws

The HZK218B relay and sensor, along with the included mounting screws for installation.

SETUP AND INSTALLATION

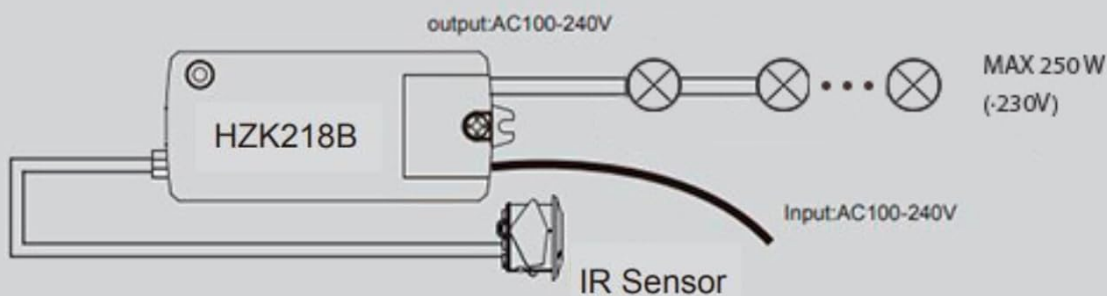
Follow these steps for proper installation of your HZK218B sensor switch.

1. Wiring Connections

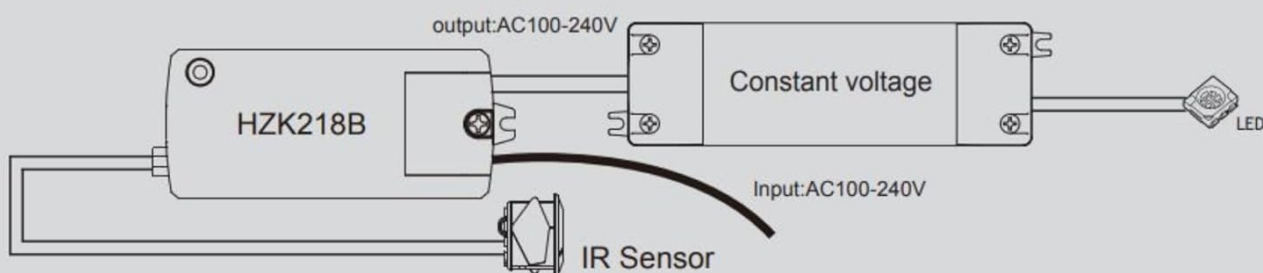
The HZK218B can be wired for either mains voltage loads or low voltage LED systems. Refer to the diagram below for correct connections.

INSTALACIÓN / INSTALLATION / INSTALLAZIONE / INSTALLATION

A TENSIÓN DE RED / AT MAINS VOLTAGE / A TENSIONE DI RETE /
À LA TENSION DU RÉSEAU / BEI NETZSPANNUNG



A BAJA TENSIÓN / AT LOW VOLTAGE / A BASSA TENSIONE /
À BASSE TENSION / BEI NIEDRIGER SPANNUNG



Wiring diagrams for the HZK218B, illustrating connections for both mains voltage (top) and low voltage (bottom) applications.

- Mains Voltage Connection (AC 100-240V):** Connect the input wires to your AC power source and the output wires to your lighting fixture (e.g., incandescent, halogen, or LED lamps designed for mains voltage). Ensure the total load does not exceed 250W.
- Low Voltage LED Connection:** Connect the input wires to your AC power source. The output of the HZK218B should then connect to the primary side of a constant voltage LED driver/charger. The LED strip or fixture connects to the secondary side of the LED driver.
- Use the screw terminals for secure connections.

2. Sensor Placement and Detection

The IR sensor detects objects within its range. For optimal performance in cabinets, position the sensor where it can detect the door opening and closing effectively.



ON-OFF

Detección máxima 10 cm
Max. detection 10 cm
Rilevamento massimo 10 cm.
Détection maximale 10 cm
Maximale Erkennung 10 cm

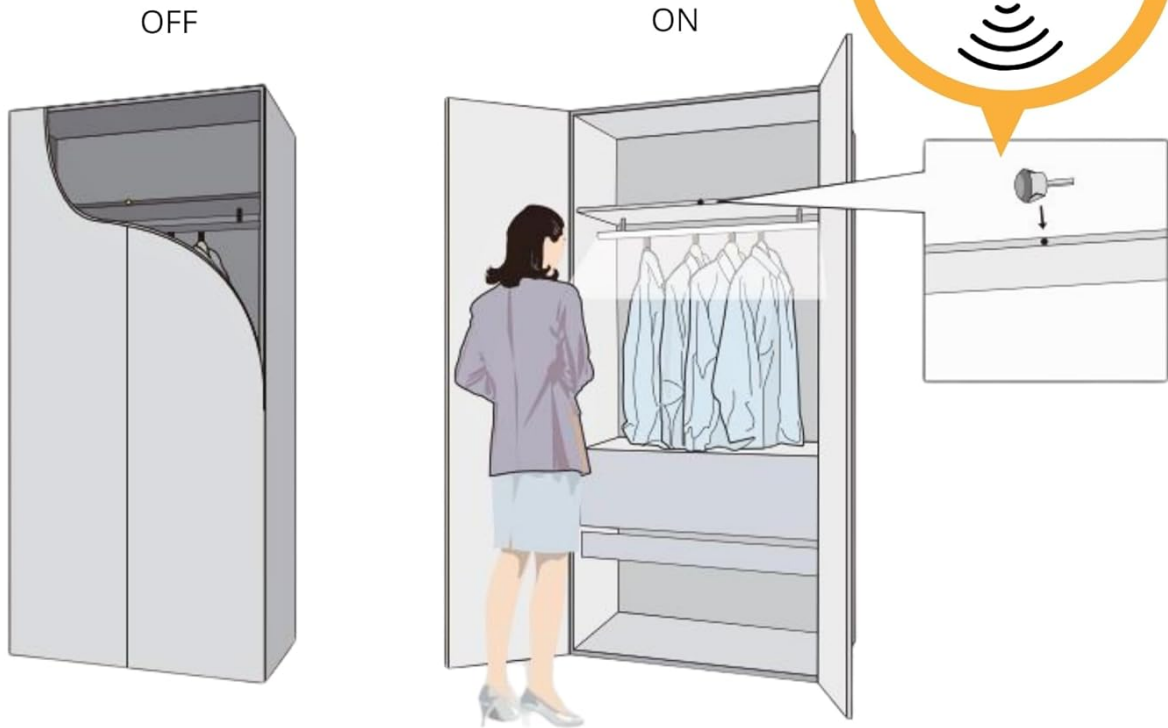


Diagram illustrating the sensor's ON/OFF operation based on cabinet door position, with a maximum detection range of 10 cm.

- The sensor has a maximum detection range of 10 cm.
- For reliable operation, a detection range of **less than 5 cm is recommended**. This ensures the sensor accurately responds to the door's movement without false triggers.
- Mount the sensor flush with the cabinet surface or in a small drilled hole, ensuring its lens is unobstructed.

RELÉ ELECTRÓNICO CON SENSOR INFRARROJO IR PARA ARMARIOS

ELECTRONIC RELAY WITH IR INFRARED SENSOR FOR CABINETS

RELAIS ÉLECTRONIQUE AVEC CAPTEUR INFRAROUGE IR POUR ARMOIRES /
RELÈ ELETTRONICO CON SENSORE IR AD INFRAROSSI PER ARMADI /
ELEKTRONISCHES RELAIS MIT IR-INFRAROTSENSOR FÜR SCHRÄNKE



Rango de detección:
recomendable menos de 5cm
Detection range:
less than 5cm is recommended
Campo di rilevamento:
si consiglia un raggio inferiore a 5 cm
Plage de détection:
moins de 5 cm est recommandé
Erfassungsbereich:
weniger als 5 cm wird empfohlen

Detailed view of the HZK218B relay and sensor, emphasizing the recommended detection range of less than 5 cm for optimal performance.

3. Mounting the Relay

The relay unit can be mounted using the provided screws. Choose a secure location inside the cabinet or near the lighting fixture, ensuring it is protected from physical damage and moisture.

- Use the mounting screws to fix the relay securely.
- Ensure adequate ventilation around the relay if installed in an enclosed space.

OPERATING INSTRUCTIONS

The HZK218B operates automatically based on the detection of the cabinet door.

- When the cabinet door is **closed**, the IR sensor detects the door, and the connected light will be **OFF**.
- When the cabinet door is **opened**, the IR sensor no longer detects the door (as it moves out of range), and the connected light will automatically turn **ON**.

- The light will remain ON as long as the door is open and the sensor is unobstructed.



Illustration of the sensor's function in a cabinet, demonstrating automatic light activation upon door opening.

MAINTENANCE

The HZK218B Electronic IR Sensor Switch requires minimal maintenance.

- **Cleaning:** Periodically wipe the sensor lens with a soft, dry cloth to ensure it remains free of dust and debris, which could affect its detection capabilities. Do not use abrasive cleaners or solvents.
- **Inspection:** Occasionally check the wiring connections to ensure they remain secure.
- No user-serviceable parts inside. Do not open the relay housing.

TROUBLESHOOTING

If you encounter issues with your HZK218B, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Light does not turn ON when door opens.	<ul style="list-style-type: none"> No power to the relay. Incorrect wiring. Sensor obstructed or out of range. Light bulb/fixture faulty. Load exceeds 250W. 	<ul style="list-style-type: none"> Check circuit breaker and power supply. Verify wiring against the installation diagram. Ensure sensor lens is clean and door is within 5cm detection range. Test the light fixture directly. Reduce the connected load.
Light does not turn OFF when door closes.	<ul style="list-style-type: none"> Sensor not detecting the closed door. Sensor faulty. 	<ul style="list-style-type: none"> Ensure the door completely covers the sensor's detection area when closed. Adjust sensor position if necessary. Clean the sensor lens. If problem persists, the sensor may be faulty and require replacement.
Intermittent operation.	<ul style="list-style-type: none"> Loose wiring connections. Sensor interference. 	<ul style="list-style-type: none"> Check and tighten all wiring connections. Ensure no reflective surfaces or strong light sources are interfering with the sensor.

SPECIFICATIONS

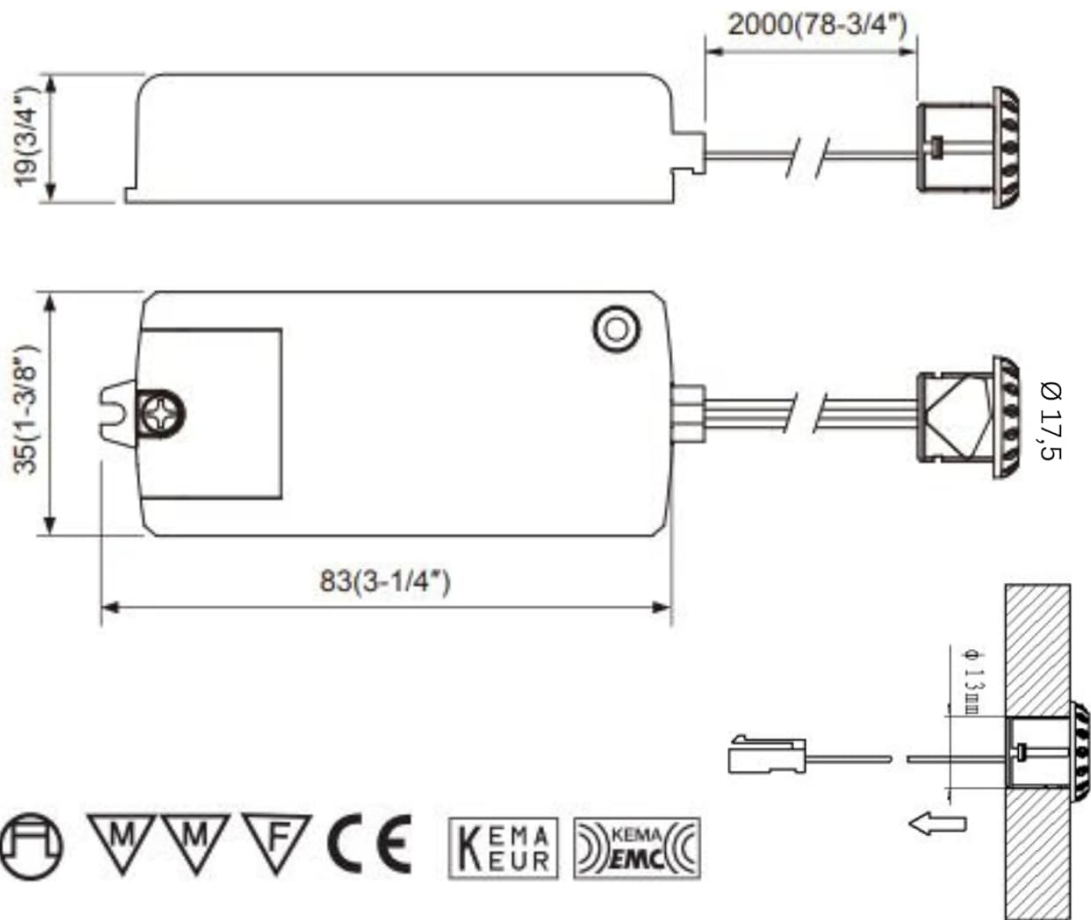
Technical specifications for the HZK218B Electronic IR Sensor Switch:

Feature	Detail
Model Number	HZK218C
Brand	SELF ELECTRONICS
Input Voltage	100-240VAC, 50/60Hz
Max. Lighting Load	250W
Rated Current	1A
Detection Type	Infrared (IR) Sensor
Max. Detection Range	10 cm (Recommended: < 5 cm)
Operating Mode	Automatic
Connector Type	Screw Terminals

Feature	Detail
Contact Material	Copper
Contact Type	Normally Open
Mounting Type	Screw Mount
Product Dimensions (L x W x H)	8.3 x 3.5 x 1.9 cm (3-1/4" x 1-3/8" x 3/4")
Weight	70 grams
Certifications	Certified (CE, KEMA EUR, EMC)

DIMENSIONES SIZES

mm/inches



Technical drawing displaying the dimensions of the HZK218B Electronic IR Sensor Switch in both millimeters and inches.

WARRANTY AND SUPPORT

While specific warranty details are not provided in the product information, SELF ELECTRONICS products are generally known for their reliability and certification.

For technical support, warranty claims, or further assistance, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.

Manufacturer: SELF ELECTRONICS CO LTD

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This manual is for informational purposes only. Specifications are subject to change without notice.