

1. KCS-RFID-BK

1.1. RFID Key Card Switch (Energy Saver)



Model number:	KCS-RFID-BK
Mounting:	Flush-mounted installation (EU standard Ø60 mm wall box)
Packaging:	1 Pack = 1 device

1.2. General description

KCS-RFID-BK is a wall-mounted RFID key card switch designed for hotel rooms to control power supply based on guest presence. The device detects an inserted RFID card and activates an internal relay output, enabling electrical circuits such as lighting, sockets, and HVAC systems.

It is typically used as part of a GRMS (Guest Room Management System) to implement energy-saving strategies and automate room status detection. The device is adapted for EU installation standard (round Ø60 mm wall box).

1.3. Features

- **RFID card detection** – detects presence of guest via RFID card insertion.
- **Integrated relay output** – controls room power supply.
- **Energy saving functionality** – automatically switches off power when card is removed.
- **Wide voltage support** – compatible with 110–240V AC systems.
- **LED status indication** – visual feedback of operation state.
- **EU mounting standard (Ø60 mm)** – compatible with standard European round wall boxes.
- **Waterproof front panel** – suitable for hotel environments.
- **Simple installation** – flush mounting.

1.4. Specifications

Type:	RFID Key Card Switch (Energy Saver)
Model:	KCS-RFID-BK
Power supply:	AC 110–240 V
Frequency:	50/60 Hz
RFID frequency:	13.56 MHz
Card type:	MIFARE / compatible RFID cards
Output type:	Relay output
Max load:	up to 30–40 A
Protection class:	IP44–IP55
Material:	ABS / PC
Color:	Black
Installation:	EU round wall box (Ø60 mm)
Operating temperature:	0 to +50 °C

1.5. Integration Notes

Power control:

- Device switches room power via internal relay or external contactor.

GRMS integration:

- Can be used as presence signal (guest in room).
- Integrated into energy-saving logic (lighting, HVAC, sockets).

Installation recommendation:

- For higher loads, use external contactor controlled by the switch.

Card compatibility:

- Requires compatible RFID cards (13.56 MHz standard).

System behavior:

- Relay activates when card is inserted.
- Relay deactivates after card removal with optional delay.

1.6. Dimensions

Parameter	Value
Front panel	86 × 86 mm
Mounting	Flush (Ø60 mm EU box)
Depth	~35 mm



1.7. Wiring

Category	Purpose
Yellow	Door magnet load
Blue	Connect door magnet without polarity
Red	485 communication wire A
Black	485 communication wire B
N	Neutral (AC input)
L-OUT	Switched live output
L-IN	Live input (AC supply)

