

KAS[®]
KEYLESS ACCESS SECURITY



Energy Saving Device

with Data Identification

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Energy Saving Devices ESD-950

Energy Saving Devices (ESD) are located inside the room to activate room lighting, power and air conditioning (A/C) circuits. ESDs are activated by inserting the room keycard into the ESD socket.

KAS Energy Saving Devices have two main features. These features are becoming an industry requirement in new buildings to significantly reduce power consumption.

1. Data Identification (DI) enabled

Only room cards can activate the switch.
Not external mifare cards or transit cards

2. Dry contact relay for A/C control

Independently control and switch off the Air Conditioning (A/C) to the room when windows and/or doors are open.



Save up to 40% on your energy costs with KAS energy saving devices.

Reed Switches - Micro Switches

Reed Switches (RS) are installed on windows and/or doors. When the reed switches are closed, the A/C system will run normally. If a reed switch is opened, it will break the circuit and cut the power to the A/C unit while the lights and power will remain on. If the doors/windows then again are re-closed, the A/C unit will automatically power back on.

Door reed switch
(Used for main entrance door)



ESR300 Reed Switch - Plug in
Installed at the top of door frame
3 wire version for NO/NC switching option

Window reed switch
(Used for sliding doors/windows)



ESR100 - Window reed switch
Installed along window frame

ESD Series Specifications

Supplied by KAS:

- ESD Device
- Mounting C-Clip
- Fixing screws
- Reed switches (as per quotation)

Features:

- Activated by KAS Mifare guest keycards
- Data Identification encryption for extra security (as per quotation)
- Bright LED indication when no card is present (to assist finding the ESD reader in the dark)
- Up to 40% increased energy savings compared to non-Mifare activated ESD
- Data Identification Encryption: Mifare Zone 1 (other zones available upon special order)
- Default egress time delay: 15 seconds (adjustable to 30 seconds)
- Australian SAA certified ✓



Specifications:

- Mains Power Relay - Nominal of 10A Continuous (Peak max of 16A)
- Lighting - If wired directly from the ESD Incandescent/Halogen LED max. load 8A
- Power - ESD acts as switching device and must be connected through an electrical contactor - Rating specification as defined by the contactor (not supplied by KAS)
- Reader Dimensions: W86mm x H86mm x D46mm
- Operating Temp: -10C to 60C
- Operating humidity: 10% to 95% RH
- Voltage: 220-240V AC 50Hz



Data Identification:

ESD only activated with encrypted KAS Mifare room keycards.

- Regular Mifare cards cannot activate switch.
- Regular cards, foreign, plastic or business cards cannot activate switch.
- Only KAS encrypted room cards can activate the switch.

To program the supplied ESD into Data Identification mode, insert the Programming Card into the ESD. The card will only be available for the supplied number of ESDs. Discard the Programming Card after programming is complete.



This is an optional purchasable item.

SKU: ESD955

Dry Contact Relay for A/C Control:

The second Dry Contact relay is used to control the Air Conditioner (A/C) system and is capable for being wired for either Normally Open (NO) or Normally Closed (NC) system A/C units (3 wires).

The optional Reed Switch is also capable for either NO or NC in air conditioning units (3 wires).

The second relay allows the A/C system to be independently controlled by both of the following two actions:

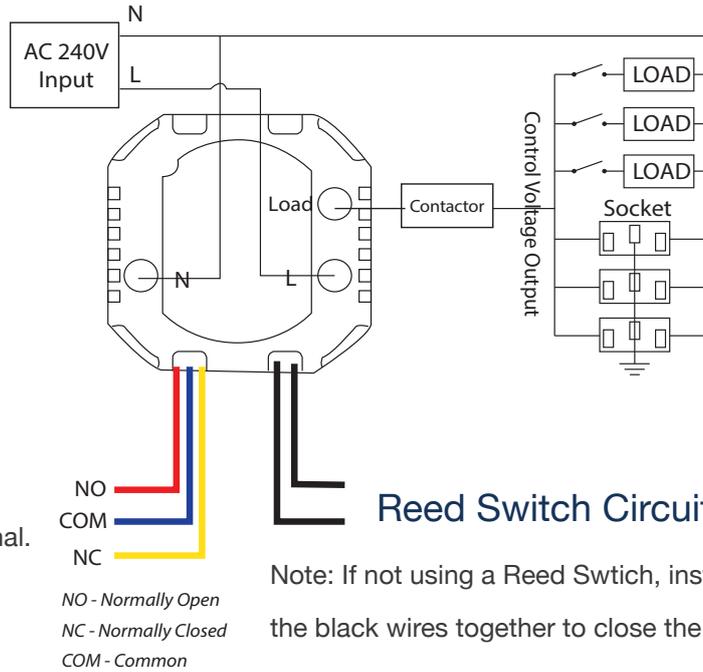
- 1) KAS keycard being inserted into the ESD, and
- 2) With the room door and/or windows remaining closed.

The ESD uses 'dry contact relays' wired directly to the A/C unit to turn the A/C unit On and Off in a manner similar to the function of the A/C remote control. This can assist to prolong the life of the compressor (and other internal components) compared to being switched On and Off by the 240V power switch.

This feature is now often required by most modern A/C manufacturers to retain their product warranty.

Wiring Diagram

L - LIVE 240V AC (Active feed)
 N - NEUTRAL 240V AC (Neutral feed)
 LOAD - 240V AC (Active feed) to sub-board contactor

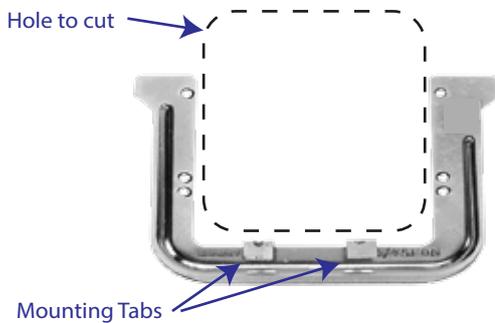


A/C Dry Contact

Independent dry contact input signal.
 NO and NC contacts available.
 Normal state is card out of device.

Installation Fixture

Mounting C-Clip



HOLE DIMENSIONS APPROX: 54 mm x 54 mm
 SUITABLE WALL BOARD: 10 mm-13 mm thickness

C-Clip supplied with every device

SKU: ESC100

Application

To securely mount the Energy Saving Device to a Gyprock or Plaster board wall.

Instructions

- 1) Locate the required position normally inside the entrance door.
- 2) Trace internal C-Clip shape on the wall and mark screw holes
- 3) Turn C-Clip upside down, line up the 2 screw holes and trace the internal C-Clip shape again to form a square
- 4) Cut out the square with a gyprock saw and cut out slots for the 2 screw holes.
- 5) Insert C-Clip through the hole holding onto the 2 tabs that are coming off the bottom of the C-Clip facing the installer and fix the mounting tabs onto the plaster/gyprock wall.
- 6) Wire the ESD, and use screws fix onto the plaster wall using the screw holes on the C-Clip.

Pre-wiring Requirements

The following items are the pre-wiring requirements for each room. Please supply this information to your electrical contractor during the wiring planning phase and well prior to the electrical installation phase.

For any additional information please contact KAS Technical Support.

1. 240V AC power supply cable to power the ESD. The normal location for the ESD is normally just inside the main entrance door close to the light switches.
2. 1 x Twin 240V electrical cable from the ESD location to the sub-board contactor (relay) for lights/power control.
3. 1 x Twin cable running from the ESD location to the A/C unit (Cat-5 or Cat-6 cable suitable).
4. 1 x Twin figure 8 speaker wire running from ESD location to desired reed switch locations (connected in series).

Electrician to supply:

- 240V AC Contactors - that must be supplied to all power points, cooktops and non-lighting appliances to retain product warranty. Note: Lighting may be wired directly from the ESD for Incandescent and Halogen lighting up to a maximum continuous load of 8A
- Any additional dry contact activated relays that may be required at the A/C unit
- Cabling to all locations

KAS supply:

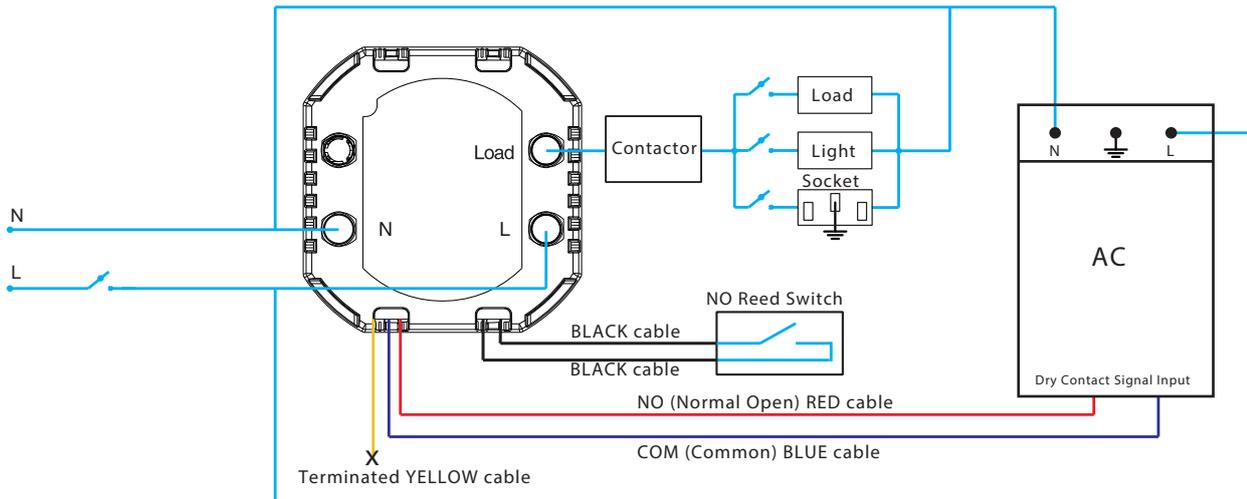
- Energy Saving Devices
- Mounting C-Clips
- Fixing Screws
- Reed switches (as per quotation)
- Optional: Data Identification Programming Card (as per quotation)



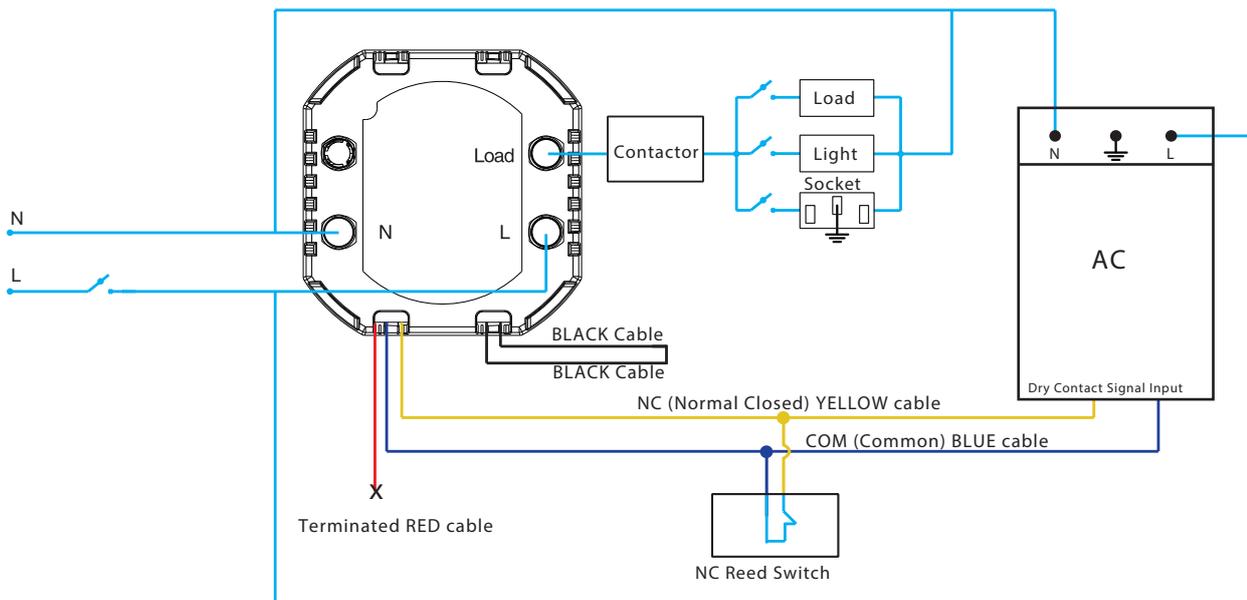
WARNING

This product uses 240V AC power. This product must only be installed, removed or modified by a licensed electrical contractor.

For A/C systems with NO circuit switch



For A/C systems with NC circuit switch



Note: If you wish to use the second dry contact relay without using any Reed Switches, then you need to join the back wires together.