Relay Control Series:

Relay Module 4CH, 16A

RM0416A

Datasheet

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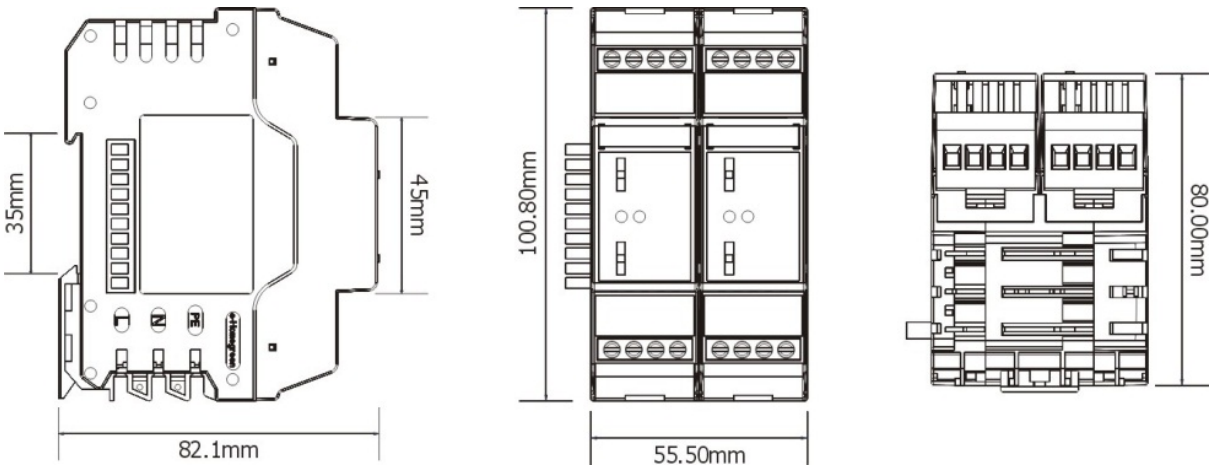
Description

The e-Homegreen RM0416A Relay Module is a green-BUS 4 channel output device with a maximum control load of 16A per channel. The relay can withstand high in-rush currents and is suitable for incandescent, high-intensity discharge lamps and fluorescent loads.

The module is provided with a status LED to indicate the load status and can be used to identify the module during system configuration. For ease of installation the modules are DIN rail mounted.

The module comes equipped with a tri-state switch that allows individual local control of connected circuits and devices for installation and testing. Each channel can be locally "locked" to disable control, making it safer for installation and maintenance than conventional automation systems.

Dimension



Device Features

- Provides 4 x 16A relay outputs.
- Utilizing green-Technology latching relays, each channel retains its current state in case of loss of mains or green-BUS power.
- Can be associated with 0-10V analog output modules for fluorescent dimming.
- Electrical phase independence for each Channel.
- Tri-state switch that allows individual local control. Each channel can be locally "locked" to disable control.
- Simple, sliding module connection ensures error-free green-BUS installation.
- Module's I/O can easily be swapped out via plug-in system for fast and cost-effective maintenance.
- Each channel incorporates current detection, overload and overheat protection.
- Each channel includes short circuit cut-out protection against installation wiring faults and incandescent lamp filament failure.
- No earth is required.
- LED indicates load status of each channel.
- Remembers last known state in the event of power loss.
- Incorporates Zone and Category grouping.
- Built-in Scene, Sequence and Timer engines supporting up to 32 Scenes, 8 Sequences and 16 Timers.
- Built-in Event engine supporting up to 32 Events with up to 8 triggers, 8 conditions and 128 actions.
- 32 Flags can be defined to be used as triggers and/or conditions for Event engine.
- Programmable onsite or offsite via e-Homegreen Configuration Client Software.
- Programmed variables are stored in nonvolatile memory and are retained in case of loss of mains or green-BUS power.
- Digital input for fire alarm integration.
- CE Approved.

Technical Specifications

Operation Voltage:	DC 24V±10% (BUS Powered)
Power Consumption:	Approximately 25mA standby
Working Temperature:	0ºC ~ +55ºC
Storage Temperature:	-10ºC ~ +55ºC
Working Humidity:	20% ~ 90%
Storage Humidity:	10% ~ 90%
Installation:	35mm DIN rail mounting, EN50022
Color:	Grey
Net Weight:	262g
Gross Weight:	327g
Module Dimension:	55.5x100.8x80mm (WxHxD)
Packing Dimension:	115x115x65mm (WxHxD)
Operation and Display:	Green LED, for displaying physical status
CE Mark:	In accordance with EMC and LVD
Protection Class:	IP20, EN60 529

Installation

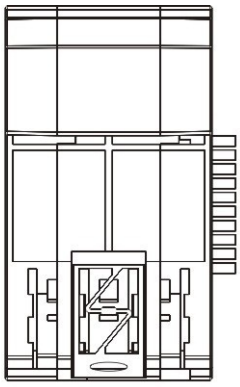


Figure 1

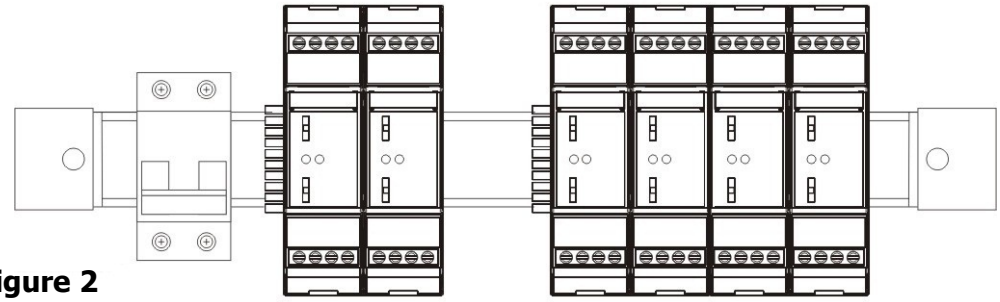


Figure 2

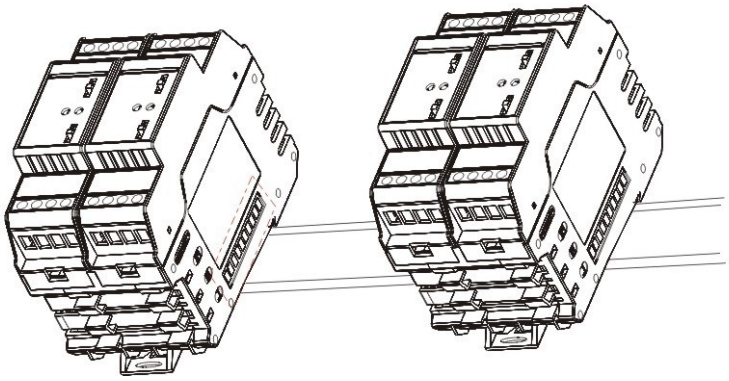


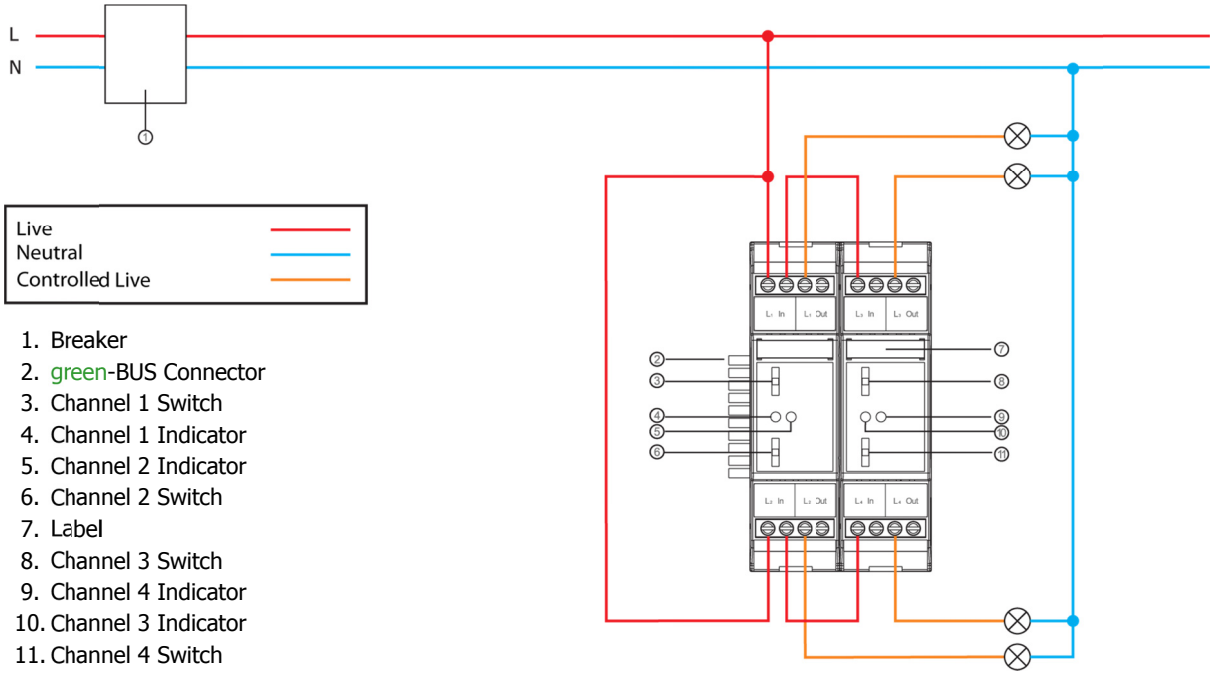
Figure 3

Step 1: Turn the module (see **Figure 1**) and mount it on the 35mm DIN rail. Hook the module, top first, onto the DIN rail then gently press the bottom of the module onto the rail and ensure that it latches on firmly (see **Figure 2**).

Step 2: Join the modules together by sliding them together along the DIN rail ensuring that the green-BUS plug (see **Figure 2**) fully locates into the next modules green-BUS socket (see **Figure 3**).

Step 3: Wire remaining terminals in accordance with wiring diagram (see **Figure 4**).

Wiring Diagram



1. Breaker
2. green-BUS Connector
3. Channel 1 Switch
4. Channel 1 Indicator
5. Channel 2 Indicator
6. Channel 2 Switch
7. Label
8. Channel 3 Switch
9. Channel 4 Indicator
10. Channel 3 Indicator
11. Channel 4 Switch

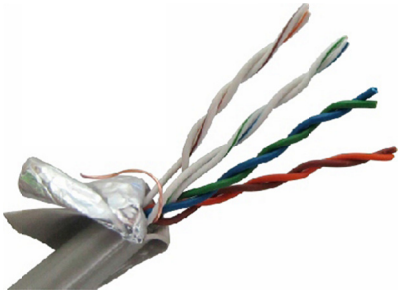
Figure 4: Wiring Diagram

Recommended Cables

- Module power input cable: 2.5mm² electrical copper wire
- Load output wire: 2.5mm² electrical copper wire
- green-BUS connection cable: CAT5e

Recommended Cable Configuration:

GND = Brown and White + Orange and White
Data - = Blue and White + Green and White
Data + = Blue + Green
24V = Brown + Orange



Safety Instructions

Please carefully read these instructions before use. Switch the power off before installing or dismounting.

Bus Connection:

System wiring must be operated strictly in accordance with the figure shown in the wiring diagram. When the power is on, the indicator flashes to indicate that the module is in the normal communication status; if no indicator is flashing, check that the modules are solidly joined together, otherwise it will result in over-current and possible damage to the modules.

Input Device Connection:

Use standard RS485 data cable with four twisted pairs. The data cable connected with an energized device is live. Do not cut or terminate live data cables.

Input Power:

Module load power must be connected via a suitable breaker.

Output Circuit:

Load on each circuit should not exceed the specified capacity.

Power Sources:

This device should only be operated from the green-BUS power supply.

Installation Location:

Please keep the system modules away from other equipment that may cause interference. A dry and well-ventilated location should be used. Modules should be protected from dust, water, and sand. Do not clean the modules surface with alcohol or other volatile liquids.

Maintenance:

Regularly inspect the conditions of all wires and test electrical circuitry. Replace any wires or modules that are damaged. Regularly clean the modules.

Problem Solving

If you cannot locate specific information, are having difficulties with your installation or if you have questions after reviewing this guide, please contact our Technical Support team by emailing:

support@e-homegreen.com

Reference Documents

The latest version of all documents related to the e-Homegreen range can be obtained from the e-Homegreen website:

www.e-homegreen.com

Additional Modules

If you require additional modules from the same series, you can find the entire series at:

www.e-homegreen.com/relays.php

If you require additional devices from the e-Homegreen range, you can view the entire catalogue at:

www.e-homegreen.com/products.php

Guarantee/Warranty Summary

Please go to www.e-homegreen.com/guarantee-warranty to view the full Guarantee and Warranty information.

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