DALI RELAY MODULE

DRM.1

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Product Description

Product Overview :-

Model Number: DRM.1

Description: The DALI Relay Module allows you to connect non-DALI devices(which do not have DALI input) to DALI Bus. It will act as a bridge between the DALI controller and non-DALI devices, allowing easy control of high power-devices and energy-efficient automation.

Application: Lighting control (ON/OFF switching), integration with building management system, scene control, emergency lighting control, regular household appliances.

Product Features :-

- Compatible with DALI-2 version.
- Compliant with DALI standard IEC 62386-208(Device Type 7-Switching Function).
- Can switch both AC and DC Loads.
- Provides ON/OFF state feedback to the DALI controller.
- Configurable relay positions(ON/OFF) in case of DALI line outage.
- Safety Feature - Relay State for Fault Conditions:
    1. **Power loss on DALI bus**: DALI Relay will set a switch to a state(ON/OFF) as defined in the "System Failure Level" configuration register.
    2. **Power loss on 24 VDC/250VAC**: When power restores, DALI Relay will set a switch to the state(ON/OFF) as defined in "Power On Level" configuration register.

Product Benefits :-

- Easily adds non-DALI devices to a DALI system.
- Designed for long-term operation in various environments.
- Potential- free, bi-stable relay make contact.
- Integrates with DALI scenes and groups.
- Energy efficiency by automatic switching based on schedules.

Technical Details

Technical Specification:-

Supply	via Dali Line
Coil Voltage	5VDC
Input Voltage	16V
Power consumption	1.92mW
Isolation	Electrically isolates DALI bus and load
Max. current consumption	12mA
Max. Switching Current	16A
Number of DALI Addresses	1
Mounting	Flush Mount
Type of contact(NO/NC)	1 normally closed
Dimmable	No
Dimensions	55mm x 48mm
Weight	53g
Material	ABS Material
Ambient operating temperature	-40°C to 85°C
Ambient operating humidity	5% to 85%
Warranty	5 years

LED Indication:-

ON	Load is ON
OFF	Load is OFF

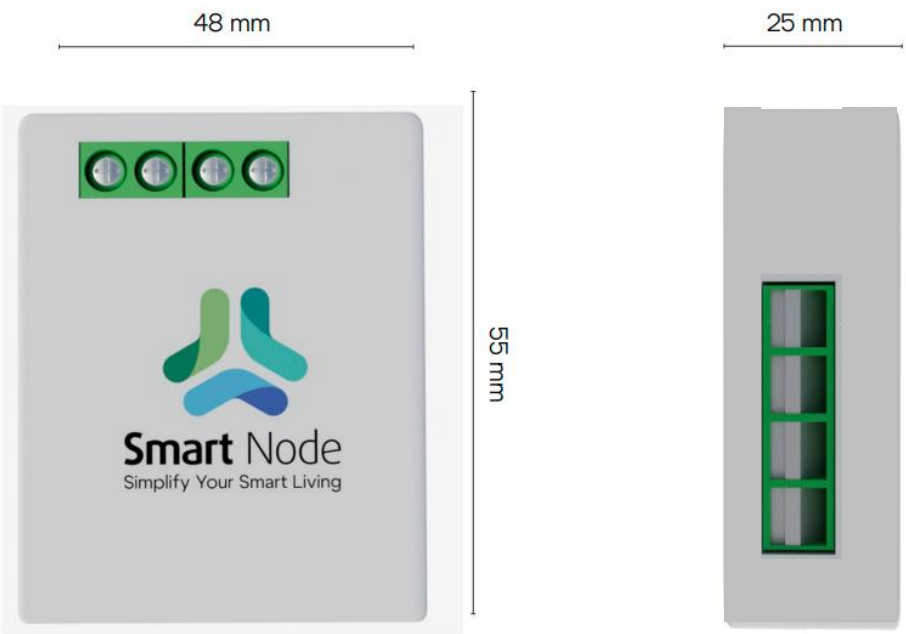
Installation

- Ensure the power supply and DALI bus are disconnected before installation.
- Mount the relay module securely in a flush mounting box or panel.
- Connect the D+ and D- bus wires to their corresponding D+ and D- terminals on the relay module.
- Connect the load wire to the L terminal and live wire to the P terminal.
- Ensure the load's voltage and current are within the relay's rated capacity.
- Verify all connections before powering up the system.
- Configure the module by doing DALI Commissioning from Application (assign address, scenes, and groups as needed).

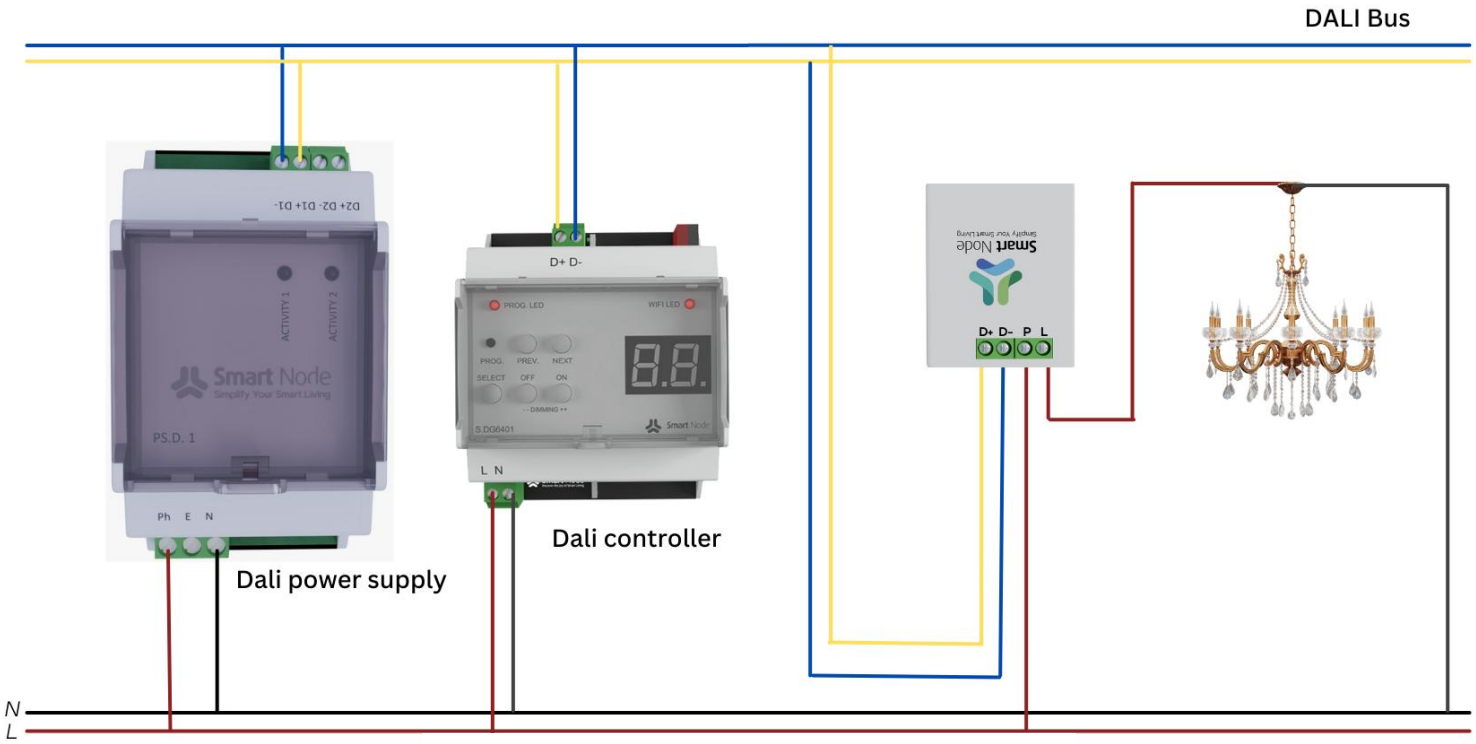
Safety & Warnings:-

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

Dimensions:-



Wiring Diagram:-



Maximum Number of Relay Modules Supported in DALI Bus:-

To ensure reliable operation within DALI standards, total current consumption on the bus **must not exceed 200 mA**.

Example Calculation:

Module	Max. Current	Connected Drivers (2mA each) in DALI Bus	Remaining current for Modules	Max. Modules
Relay Module	12mA	50 × 2 mA = 100 mA	200 mA − 100 mA = 100 mA	100 ÷ 12 = 8

In this case, maximum 8 relay module can be connected to the DALI bus without exceeding the standard bus current limit of 200 mA.