DIRECT Series Lighting Control Module

DR-4DM5A

4 Channel 5A SCR Dimmer Module

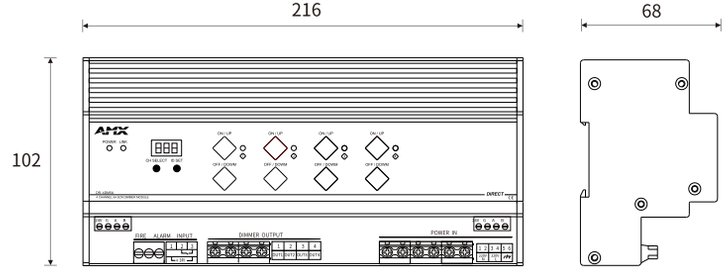
DR-4DM5A adopts the DIN rail mounting mode, including four silicon controlled rectifier (SCR)/thyristor dimming circuits. Each circuit can independently control the dimming of 1100W device, with manual keys. It visually indicates the dimming status of each circuit. The nixie tube accurately displays the dimming value of each dimming circuit. It is used to control the dimming and switching functions of halogen lamps, incandescent lamps, fluorescent lamps and LED lamps.

Features

- Adopt the front-porch SCR phase-cut for dimming and provide 4-channel 5A front-porch dimming.
- The total power of 4 channels is 3600 W (LED lamp capacitive load is 2520 W). Each circuit can independently control 1100 W (LED lamp capacitive load is 770 W) dimming lamps.
- Provide relay protection, temperature protection, over-temperature automatic shutdown output functions.
- Immediately return the real-time dimming status of each circuit to the monitoring center after executing the scene command.
- Provide one built-in fire control interface, with one passive normally-open terminal and one active 24V terminal.
- Provide local and remote programming and testing functions within the LAN.
- Provide manual keys as well as circuit and running status indicators, making it convenient for local debugging.
- Support online refresh of programs, with DR-Link bus disconnection fault alarm.
- Support RS485 and DR-LINK bus communication, and cascade up to 61 units.

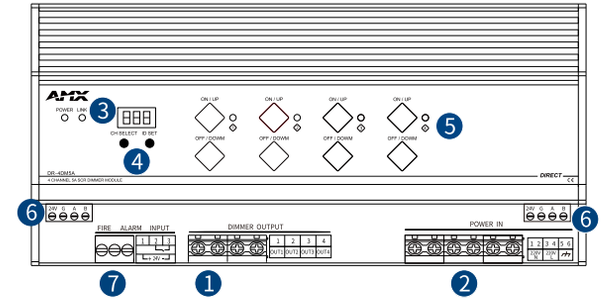
Technical Specifications

Operating voltage	24 V DC±5%
Maximum power consumption	≤2.28 W
Output circuit	4 front-porch chopping SCRs
Input voltage	220 V AC±10% (50 Hz)
Rated current	The maximum current is 5 A for each channel, and the maximum total current for 4 channels is 16 A (that is, 3600 W (the LED lamp capacitive load is 2520 W)).
Load type	LED indicators, incandescent lamps, halogen lamps, fluorescent lamps, front-porch phase-controlled electronic transformers
Bus interface	2×DR-Link buses
Fire control interface	1×fire control interface
Operating temperature/humidity	-5°C to 45°C/≤90% RH
Storage temperature/humidity	-20°C to 60°C/≤93% RH
External dimensions (L × W × H)	216 mm × 102 mm × 68 mm
Shell material	Metal
Mounting mode	Standard 35 mm DIN rail mounting
Net weight	≤1185 g/PCS



Unit: mm

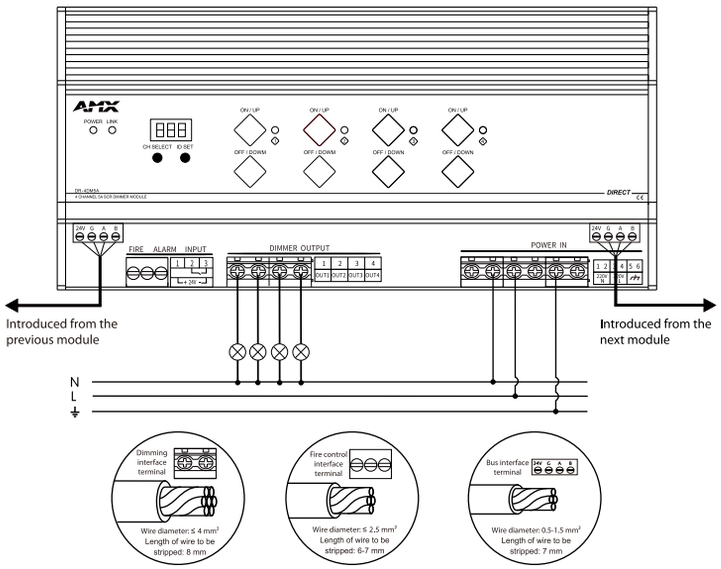
Product Structure



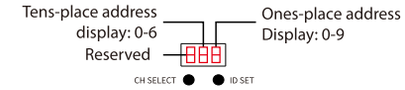
1. Dimming output terminal: 1-4 circuits. The aperture supports the connection to φ4 mm^2 wires.
2. Dimming input terminal: 220 V AC input with ground terminal. The aperture supports the connection to φ4 mm^2 wires.
3. LED indicator and nixie tube:
   - POWER: Power indicator
   - LINK: Interconnection indicator. When this indicator is steady on, the interconnection is normal. When this indicator slowly blinks, the interconnection is abnormal.
   - Nixie tube: Used for address display, address setting display, and dimming status display.
4. Function keys:
   - CH SELECT key: It is used to query the dimming channel status. Press to switch dimming channels.
   - ID SET key: The address range is 01-63.
   - Note: For the function key setting method, see "dimming brightness status description" and "address setting description" in the section "Wiring Diagram of a Single Product".
5. Brightness adjustment and status indicator:
   - ON/UP key: If you press the button, the brightness will automatically increase to 100%; if you press and hold the button, the brightness will gradually increase according to the pressing duration.
   - OFF/DOWN key: If you press the button, the brightness will automatically decrease to 0%; if you press and hold the button, the brightness will gradually decrease according to the pressing duration.
   - Status indicator: When the brightness value is 0, the indicator will be off. When the brightness value is ≥ 1, the indicator will be on.
6. Bus interfaces: 24V, G, A, and B. When cascading with other bus interfaces, do not connect them wrongly.
7. Fire control interface: passive terminal, active terminal.

   For usage method, see "fire control interface description" in the section "Wiring Diagram of a Single Product".

Wiring Diagram of a Single Product

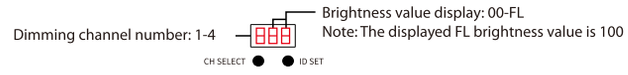


Address setting description



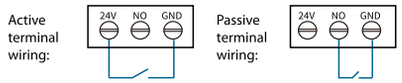
For example, to set the module address to 25, perform the following steps:
Step 1: Press and hold the ID SET key. The ones-place address blinks. Press the key to adjust the value to 5.
Step 2: Press and hold the ID SET key again. The tens-place address blinks. Press the key to adjust the value to 2.
Step 3: Press and hold the ID SET key to exit the setting. If you do not press and hold the ID SET key, the nixie tube blinks for 10s and then the system exits the setting.
Note: The address range can be set to 01-63 (decimal).

Dimming brightness status description



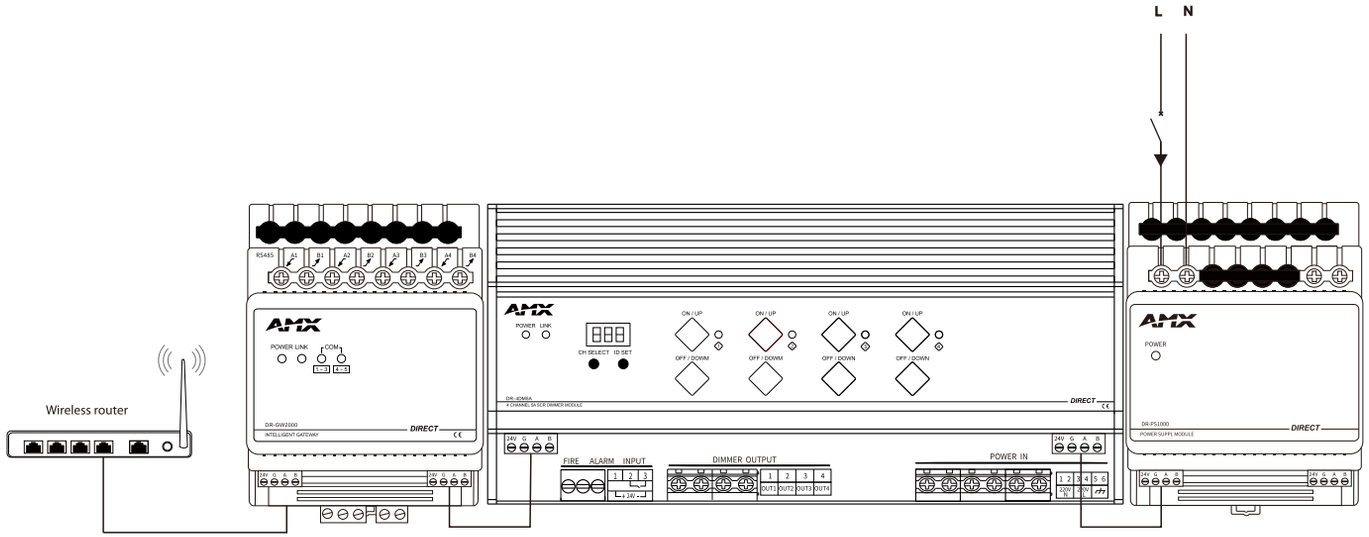
Press the CH SELECT key to switch channels and check the dimming brightness status.

Fire control interface description



Active signals are input through the DC 24 V interface. Channels 1-4 are open.
Passive signals are input through the normally open interface. NO and GND are short-circuited. Channels 1-4 are open.
(When fire control mode is cancelled, channels 1-4 will be closed);
Note: In the fire control mode, the software and manual keys cannot be used to operate the device.

Wiring Diagram of Multiple Products



Safety Use and Maintenance

- Read all instructions carefully before using the product.
- Keep the environment well ventilated.
- During use, pay attention to moisture-proof, shock-proof and dust-proof.
- It is strictly forbidden to expose the product to rain, other liquids or corrosive gases.
- If the product is damp or the liquid enters the product, it should be dried in a timely manner.
- When the product fails, please contact professional maintenance personnel or HARMAN.

Contact Method

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