

HD4

DALI High-Voltage Waterproof Controller



NFC)) CE RoHS IP67 DALI 2

The HD4 is a high-performance LED constant-voltage controller with IP67 waterproof rating. It receives standard DALI protocol signals and is compatible with all DALI systems on the market, specifically designed for precise control of LED lighting fixtures. Featuring 4 channels, it delivers a maximum output current of 6.4A and a maximum output power of 1536W, enabling stable operation of various LED constant-voltage fixtures.

DALI address, dimming curve, dimming range, dimming ramp time, color temperature range, power-on status, system failure status, and DALI templates can be quickly configured via the DALI master controller or NFC Lighting app. The DALI address can also be manually set via buttons and displayed on the digital display. Basic operations like quick switching, dimming, and color adjustment are supported through the button-operated digital display, balancing intuitive operation with deep customization.

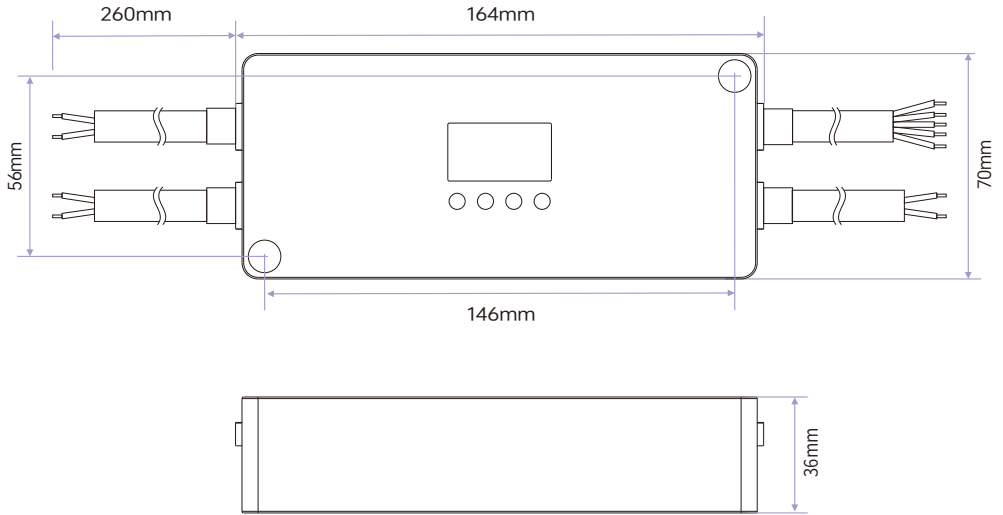
The HD4 flexibly enables dimming, color temperature adjustment, and full-color RGB/RGBW control to accommodate diverse lighting needs, integrating 8 DT6/DT8 device types: RGBW, RGB+W, XY+W, RGB, XY, 2*CT (synchronous control), 2*CT (asynchronous control), and 4*W. Device types can be switched via the NFC Lighting app. With IP67 waterproofing and stable performance, the HD4 is suitable for indoor and outdoor environments, reliably operating even in humid conditions. It delivers an efficient and flexible control solution for lighting systems.

Technical Specifications

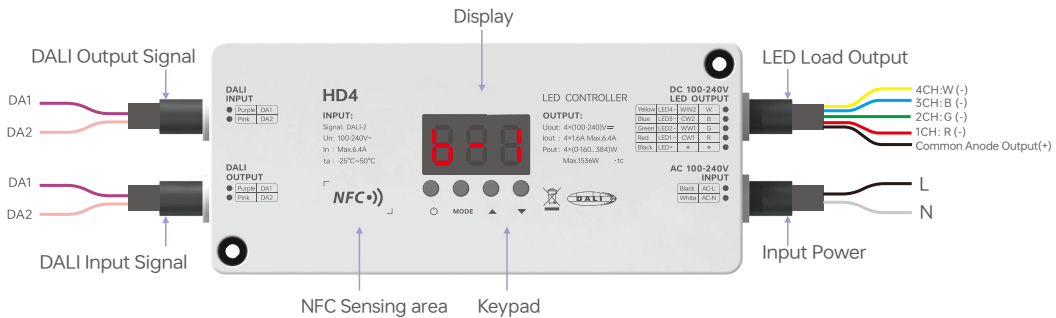
HD4

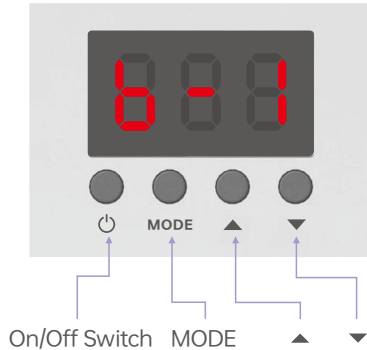
Input signal:	DALI-2	Operating temperature:	-25°C-50°C
Input Voltage:	100-240V~	Product Weight:	670g
Input current:	Max. 6.4A	Product dimensions:	L164×W70×H36mm
Output Voltage:	4×(100-240)V =	Package dimensions:	L230×W95×H47mm
Output Current:	4CH×1.6A Max. 6.4A	Waterproof rating:	IP67
Output Power:	4CH×(0-160...384)W Max. 1536W	Protect:	Short-circuit, over-temperature, and over-current protection
Surge:	4KV		

Product Dimensions



Parts Diagram





1.Button-controlled dimming

(1) Power Button:

Short press to turn the light on or off.

- When on: short press to turn off, display shows "OFF".
- When off: short press to turn on, display shows the last setting.

(2) MODE Button:

Functions depend on the current dimming mode (default RGBW, can be changed by NFC).

W: Brightness only; short press does nothing.

CT: Switch between Brightness and Color Temperature with a short press.

RGB / XY: Switch between Brightness and RGB with a short press.

(3) ▲/▼ Keys: When the fixture is on, a single short press cycles through settings. A long press continuously adjusts the current mode. No cycling.

2. Set button DALI address

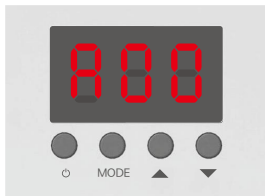
Press and hold the MODE button to enter DALI address settings (A00-A63).

You can press ▲ or ▼ briefly to set the DALI address, or press and hold ▲ or ▼ to set the DALI address quickly.

Notes:

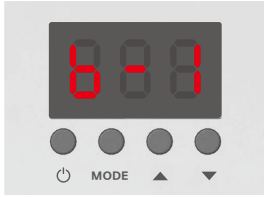
- Press and hold the MODE button or leave the screen idle for 15 seconds to save and exit DALI address settings.
- DALI addresses can be set from 00 to 63.
- By default, the controller has no assigned DALI address, and the display shows "AFF".

Default Display (DALI Address)



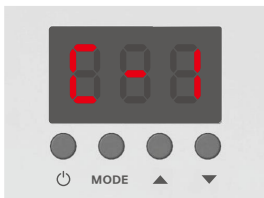
- After 2 minutes of inactivity, the device will automatically return to the default display screen (DALI address).

Brightness Mode



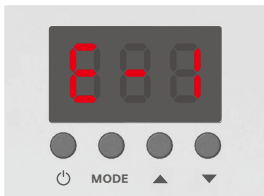
- b-1:5% brightness
- b-2:10% brightness
- b-3:25% brightness
- b-4:50% brightness
- b-5:75% brightness
- b-6:100% brightness (Default)
- b-P:hen in long-press adjustment mode or other adjustment methods, the display shows b-P.

CT Mode



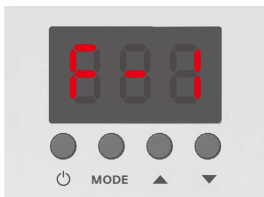
- C-1:2700K
- C-2:3000K
- C-3:4000K(Default)
- C-4:5000K
- C-5:6000K
- C-6:6500K
- C-P:When in long-press adjustment mode or other adjustment methods, the display shows C-P.

RGB Mode



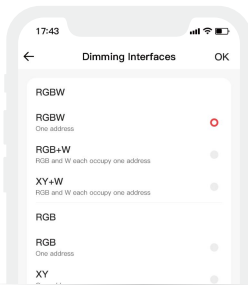
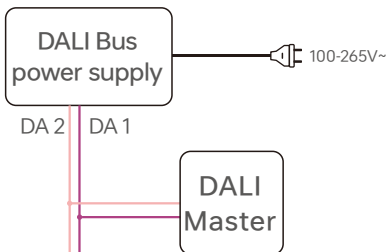
- E-1:Black
- E-2:Red
- E-3:Green
- E-4:Blue
- E-5:Yellow
- E-6:Purple
- E-7:Cyan
- E-8:White
- E-P:When in long-press adjustment mode or other adjustment methods, the display shows E-P.

W Mode

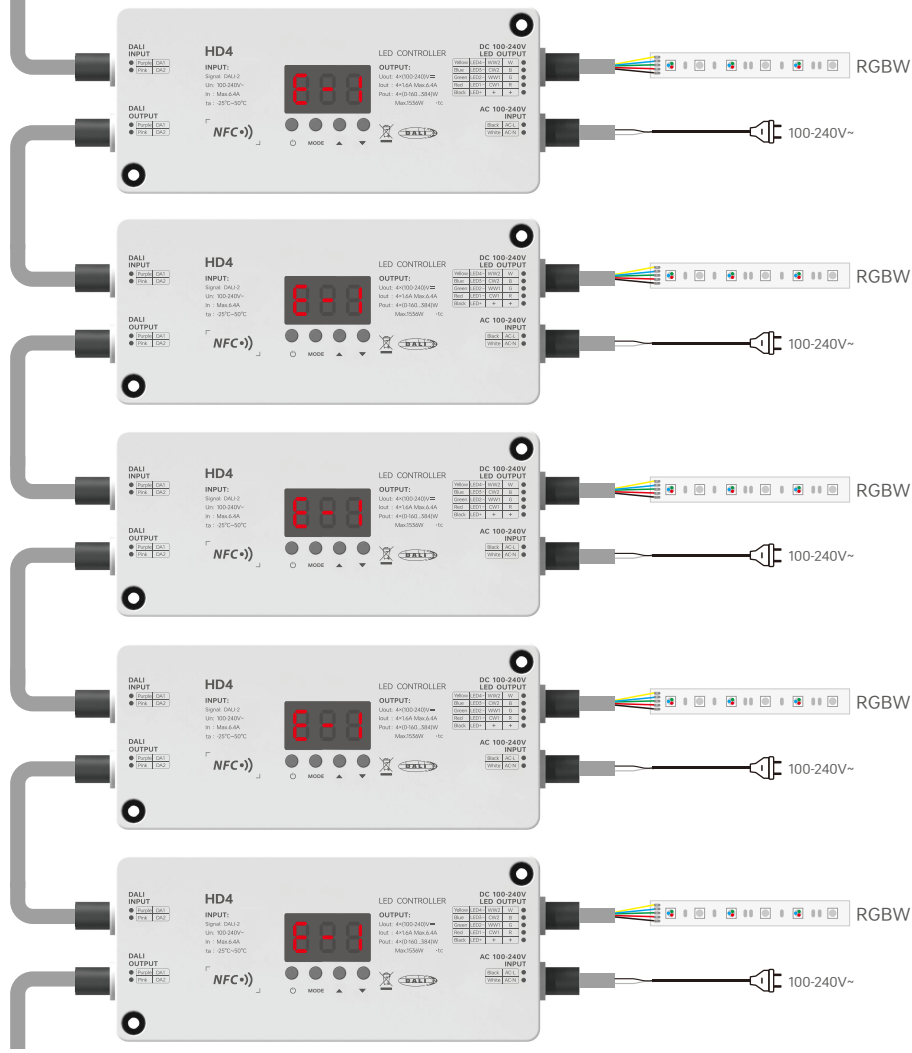


- F-1:5% Brightness
- F-2:10% Brightness
- F-3:25% Brightness
- F-4:50% Brightness
- F-5:75% Brightness
- F-6:100% Brightness(Default)
- F-P: When in long-press adjustment mode or other adjustment methods, the display shows F-P.

NFC Dimming Interface Connection Diagram

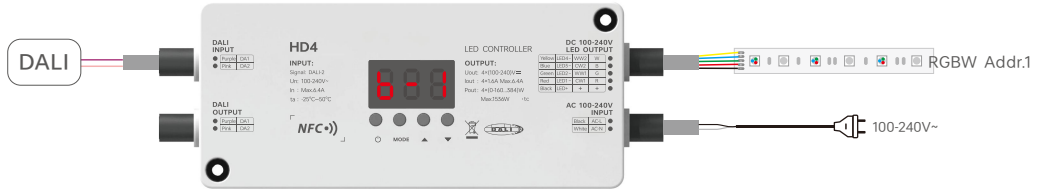


The dimming interface can be configured via the NFC Lighting App.



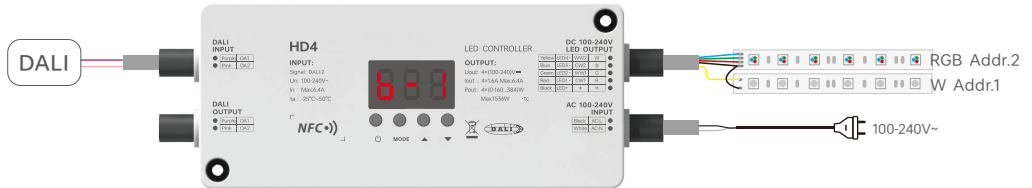
Connection Diagram

1. Dimming Interface: RGBW (Single Address)



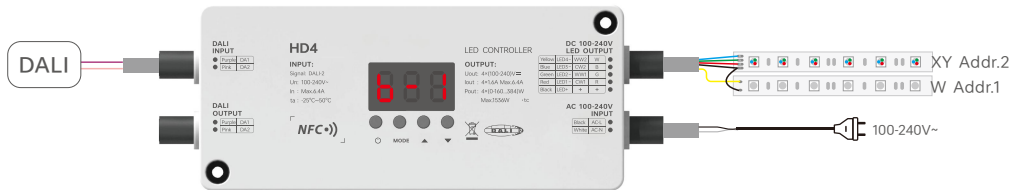
*Configure via the NFC Lighting App to connect one RGBW light, which occupies one address.

2. Dimming Interface: RGB+W (Multi-address)



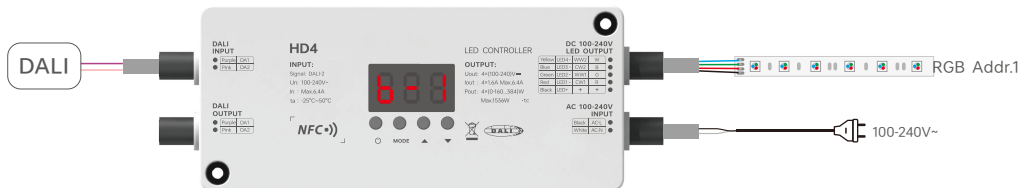
*Configure via the NFC Lighting App to connect one RGB light and one dimmable light, each controlled independently, occupying two addresses.

3. Dimming Interface: XY+W (Multi-Address)



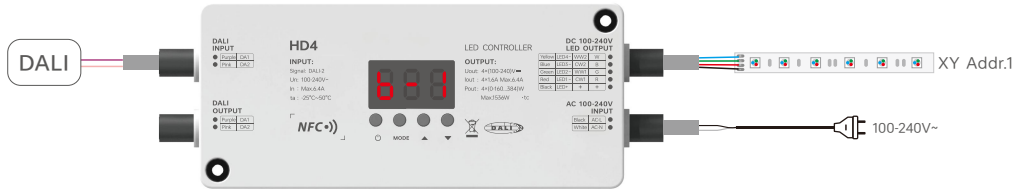
*Configure via the NFC Lighting app to connect one RGB light and one dimmable light, each controlled independently, occupying two addresses.

4. Dimming Interface: RGB (Single Address)



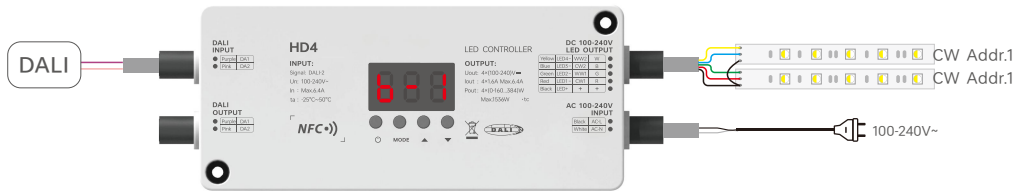
*Configure via the NFC Lighting app to connect one RGB light, which occupies one address.

5. Dimming Interface: XY (Single Address)



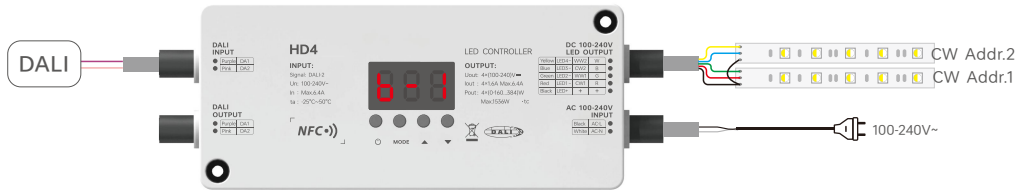
*Configure via the NFC Lighting app to connect one RGB light, which occupies one address.

6. Dimming Interface: 2x CT, DT8 Synchronization (Single Address)



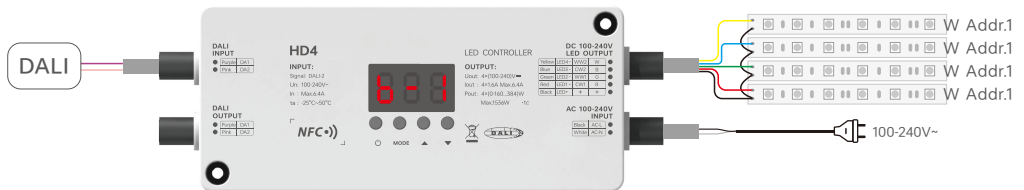
*Configure via the NFC Lighting app to connect two color temperature lights, occupying one address.

7. Dimming Interface: 2x CT, DT8 Asynchronous (Multi-Address)



*Configure via the NFC Lighting app to connect two color temperature lights, each with independent control, occupying one address.

8. Dimming Interface: 4*W (Single Address)



*Configure via the NFC Lighting app to connect one or more dimmable lights for synchronized control, occupying one address.

Use the NFC Lighting APP

Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iPhone 8 and later that are compatible with iOS 13 or higher).



NFC logo sensing area

*When setting device parameters,
the device must be powered off.

1. Read the LED driver

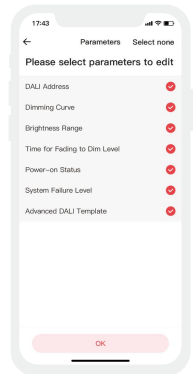
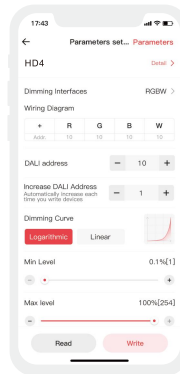
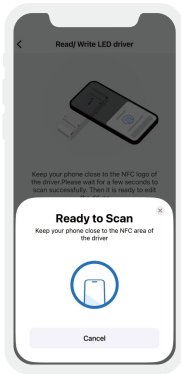
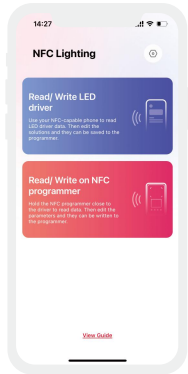
On the APP home page, click **[Read/Write LED driver]** , then keep the programmer's sensing area close to the NFC logo sensing area to read the driver parameters.

2. Edit parameters

Click **[Parameters]** to edit parameters such as DALI Address, Dimming Curve, Brightness Range, Time for Fading to Dim Level, Power-on Status, System Failure Level, and Advanced DALI Template.

3. Write to the driver

After completing the parameter settings, click **[Write]** in the upper right corner, and keep the programmer's sensing area close to the NFC logo sensing area, so the parameters can be written to the driver.



Transportation and Storage

1. Transportation

Products can be shipped via vehicles, boats and planes.

During transportation, products should be protected from rain and sun. Please avoid severe shock and vibration during the loading and unloading process.

2. Storage

The storage conditions should comply with the Class I Environmental Standards. The products that have been stored for more than six months are recommended to be re-inspected and can be used only after they have been qualified.

Warranty Agreement

- Warranty periods from the date of delivery: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

Following conditions are not within the guarantee range of free repairing or replacement services:

- Beyond warranty periods.
 - Any artificial damage caused by high voltage, overload, or improper operations.
 - Products with severe physical damage.
 - Damage caused by natural disasters and force majeure.
 - Warranty labels and barcodes have been damaged.
 - No any contract signed by our company.
1. Repair or replacement provided is the only remedy for customers. Our company is not liable for any incidental or consequential damage unless it is within the law.
 2. Our company has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.

Attention

- Product installation and commissioning should be done by a qualified professional.
- Our company products are and not lightningproof non-waterproof(special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will prolong the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

* This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.