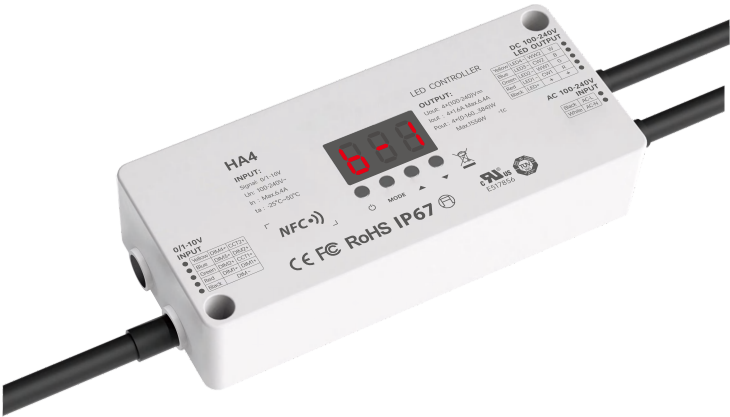# HA4

0/1-10V High-Voltage Waterproof Controller

NFC•))   CE   RoHS   IP67

HA4 is a high-performance 0/1-10V signal LED constant-voltage controller with IP67 waterproof rating, specifically designed for precise control of LED lighting fixtures. Supporting standard 0/1-10V dimming signal input, it features 4 signal input channels and 4 high-voltage PWM load output channels to effortlessly meet diverse control scenarios. With robust output performance—delivering up to 6.4A maximum output current and 1536W maximum output power—it reliably drives various LED constant-voltage fixtures.
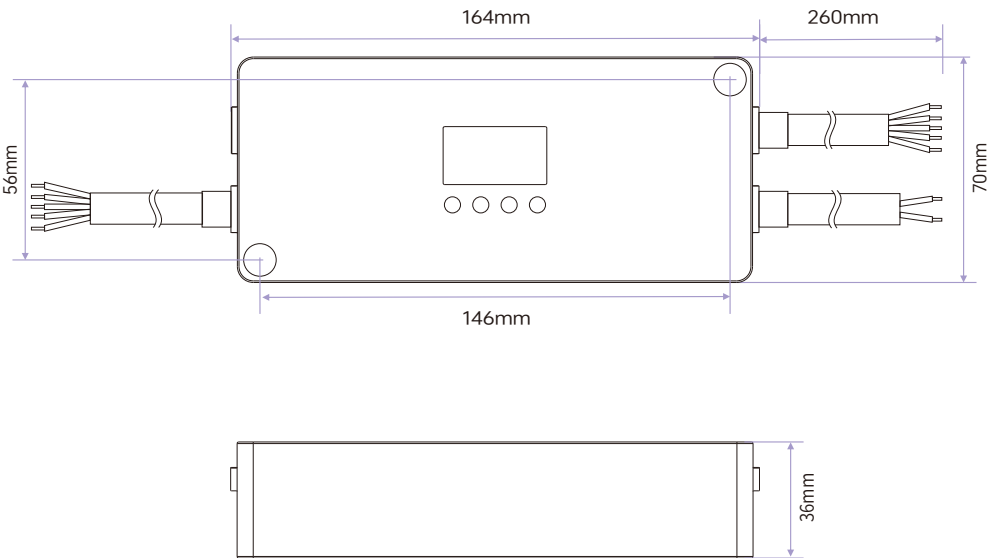
By connecting 0/1-10V dimmers to channels 1-4, it flexibly enables dimming, color temperature adjustment, and full-color RGB/RGBW control for diverse lighting requirements. For user convenience, it supports both quick on/off, dimming, and color adjustment via button-operated digital displays, as well as advanced customization through the NFC Lighting app. This app allows configuration of dimming modes, fade times, dimming curves, and dimming ranges, balancing intuitive operation with deep customization.

Boasting IP67 waterproof performance and stable operation, the HA4 is suitable for diverse indoor and outdoor environments. It reliably functions even in humid conditions, delivering an efficient and flexible control solution for lighting systems.
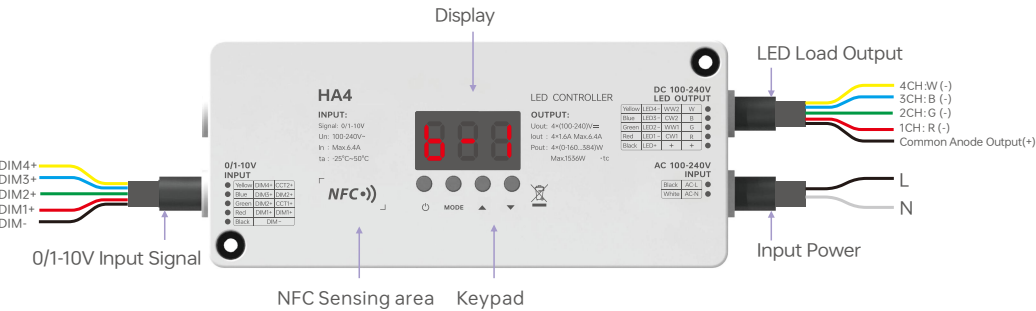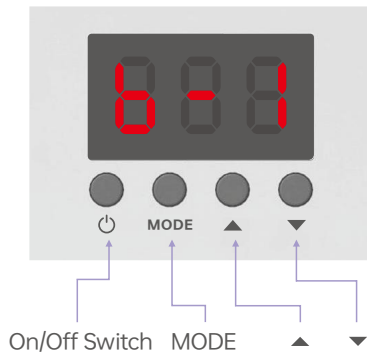
Technical Specifications

HA4

Input signal:	0/1-10	Operating temperature:	-25℃-50℃
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

164mm

260mm

56mm

70mm

146mm

36mm

Parts Diagram

Display

LED Load Output

HA4

INPUT:
Signal: 0/1-10V
Un: 100-240V~
In : Max.6.4A
ta : -25℃~50℃

LED CONTROLLER

OUTPUT:
Uout: 4×(100-240)V⎓
Iout : 4×1.6A Max.6.4A
Pout : 4×(0-160...384)W
Max.1536W   -tc

DC 100-240V
LED OUTPUT

Yellow	LED4	WW2	W
Blue	LED3	CW2	B
Green	LED2	WW1	G
Red	LED1	CW1	R
Black	LED+	+	+

4CH:W (-)
3CH: B (-)
2CH: G (-)
1CH: R (-)
Common Anode Output(+)

AC 100-240V
INPUT

| Black | AC-L |
| White | AC-N |

L
N

0/1-10V
INPUT

Yellow	DIM4+	CCT2+
Blue	DIM3+	DIM2+
Green	DIM2+	CCT1+
Red	DIM1+	DIM1+
Black	DIM -

DIM4+
DIM3+
DIM2+
DIM1+
DIM-

NFC•))

⏻   MODE   ▲   ▼

0/1-10V Input Signal

NFC Sensing area   Keypad

Input Power

2

On/Off Switch   MODE   ▲   ▼

Key Operation

(1) Power Key: Press once briefly to turn the light on or off.

(2) Switch Key: Performs different operations based on the current device's dimming interface.

  • W: Remains in brightness adjustment mode; no action occurs with a short press.

  • CT: Brightness (default)/Color Temperature, short press to toggle;

After 2 minutes of inactivity, it will automatically return to the default state.

(3) Decrease/Increase Button: When the light is on, a short press cycles through settings one at a time. A long press continuously adjusts the current mode. No cycling function.
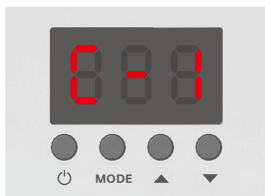
Digital Display Interface Diagram

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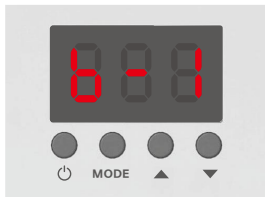
• b-1:5% Brightness
• b-2:10% Brightness
• b-3:25% Brightness
• b-4:50% Brightness
• b-5:75% Brightness
• b-6:100% Brightness(Default)
• b-P:When in long-press adjustment mode or other adjustment methods, the display shows b-P.
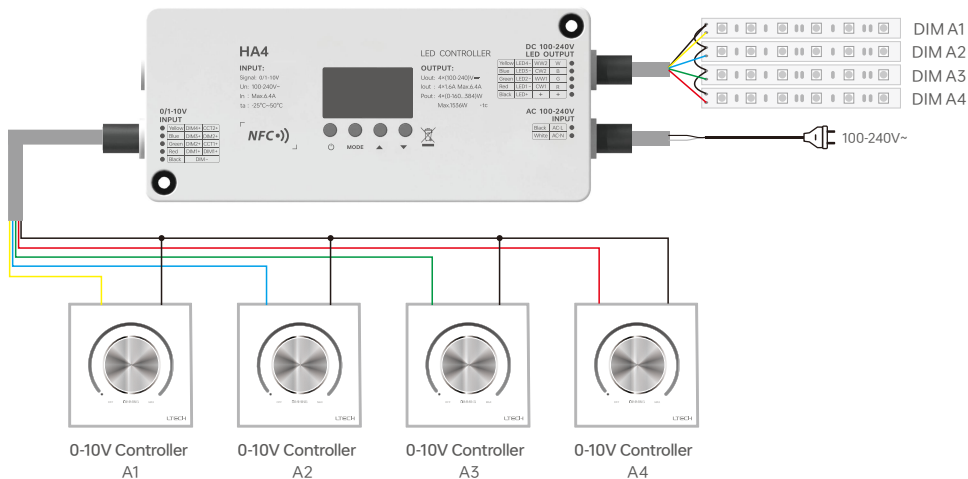
Color Temperature Adjustment

• 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.
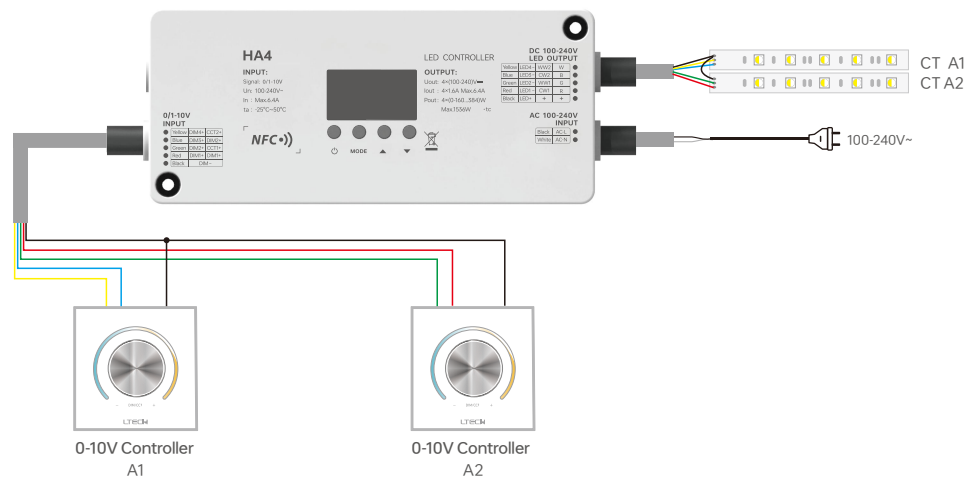
Connection Diagram

1.Connect four dimmable lights simultaneously, with each dimmer controlling one light.

Set the dimming mode to "Dimming" in the NFC Lighting app.

DIM A1
DIM A2
DIM A3
DIM A4

100-240V~

0-10V Controller A1

0-10V Controller A2

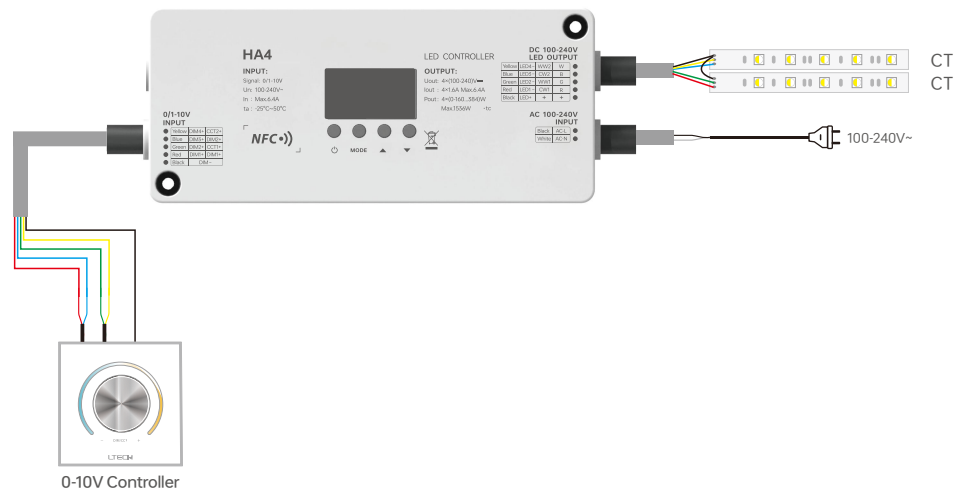0-10V Controller A3

0-10V Controller A4

2.Connect four dimmable lights simultaneously, with one dimmer controlling all four lights at once.

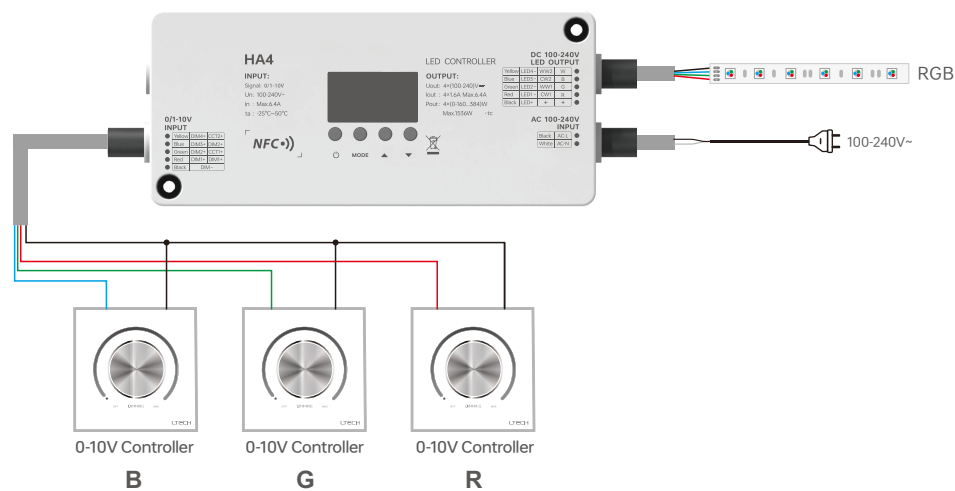Set the dimming mode to "Dimming" in the NFC Lighting app.

DIM
DIM
DIM
DIM

100-240V~
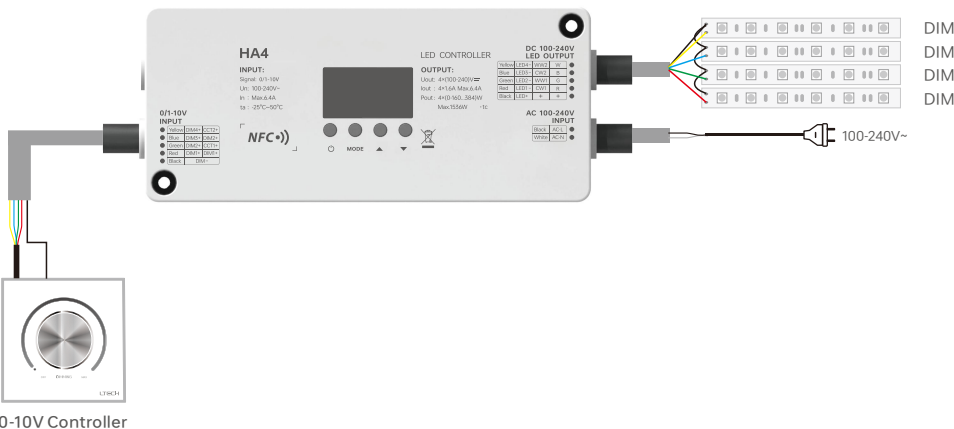
0-10V Controller

3.Connect two color temperature lights simultaneously, with each controller managing one light.

Set the dimming mode to "CT" in the NFC Lighting app.

HA4

INPUT:
Signal: 0/1-10V
Uin: 100-240V~
In : Max.6.4A
ta : -25℃~50℃

LED CONTROLLER

OUTPUT:
Uout: 4×(100-240V)/▬
Iout : 4×1.6A Max.6.4A
Pout: 4×(0-160...5840W
Max.1556W   +tc

0/1-10V
INPUT

Yellow	DIM4+	CCT2+
Blue	DIM3-	DIM3+
Green	DIM2+	CCT1+
Red	DIM1+	DIM1-
Black	DIM-	

DC 100-240V
LED OUTPUT

Yellow	LED4-	WW2	W
Blue	LED3-	CW2	B
Green	LED2-	WW1	G
Red	LED1-	CW1	R
Black	LED+	+	+

AC 100-240V
INPUT

| Black | AC L |
| White | AC N |

CT A1
CT A2

100-240V~

0-10V Controller
A1

0-10V Controller
A2

4.Connect two color temperature lights simultaneously, with one controller managing both lights at the same time.

Set the dimming mode to "CT" in the NFC Lighting app.

HA4

INPUT:
Signal: 0/1-10V
Uin: 100-240V~
In : Max.6.4A
ta : -25℃~50℃

LED CONTROLLER

OUTPUT:
Uout: 4×(100-240V)/▬
Iout : 4×1.6A Max.6.4A
Pout: 4×(0-160...5840W
Max.1556W   +tc

0/1-10V
INPUT

Yellow	DIM4+	CCT2+
Blue	DIM3-	DIM3+
Green	DIM2+	CCT1+
Red	DIM1+	DIM1-
Black	DIM-	

DC 100-240V
LED OUTPUT

Yellow	LED4-	WW2	W
Blue	LED3-	CW2	B
Green	LED2-	WW1	G
Red	LED1-	CW1	R
Black	LED+	+	+

AC 100-240V
INPUT

| Black | AC L |
| White | AC N |

CT
CT

100-240V~

0-10V Controller

5.Connect one RGB light; three controllers separately control the R, G, and B channels.

Set the dimming mode to "Dimming" in the NFC Lighting app.

0-10V Controller
B

0-10V Controller
G

0-10V Controller
R

6.Connect one RGBW light, with four controllers separately controlling the R, G, B, and W channels.

Set the dimming mode to "Dimming" in the NFC Lighting app.

0-10V Controller
W

0-10V Controller
B

0-10V Controller
G

0-10V Controller
R
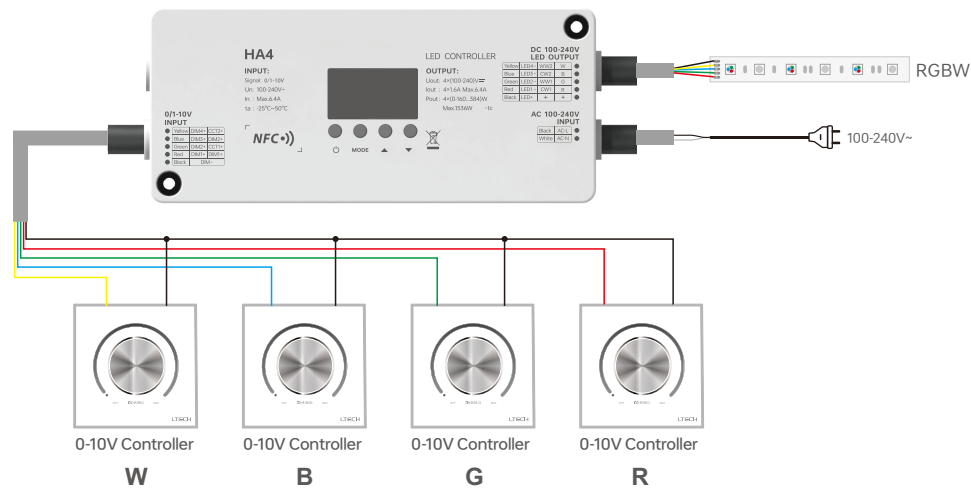
Use the NFC Lighting APP

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).

Scan to download A
ios/apk

NFC 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 sensing area to read the driver parameters.

2. Edit parameters

Click [Parameters] to edit parameters such as Select Brand, Dimming Type, Time for Fading to Dim Level, Dimming Curve, and Brightness Range.

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 sensing area, so the parameters can be written to the driver.
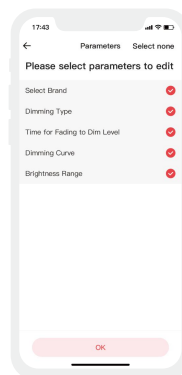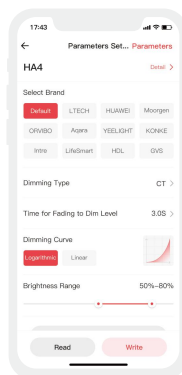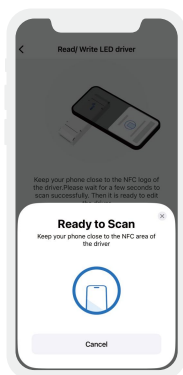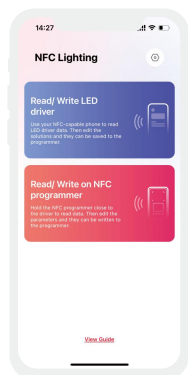
Transportation and Storage

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.
· Avoid installation near large metal surfaces, in thunder-prone areas, strong magnetic fields, or high-voltage zones.
· 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.

Update Time: 05/11/2025_A0