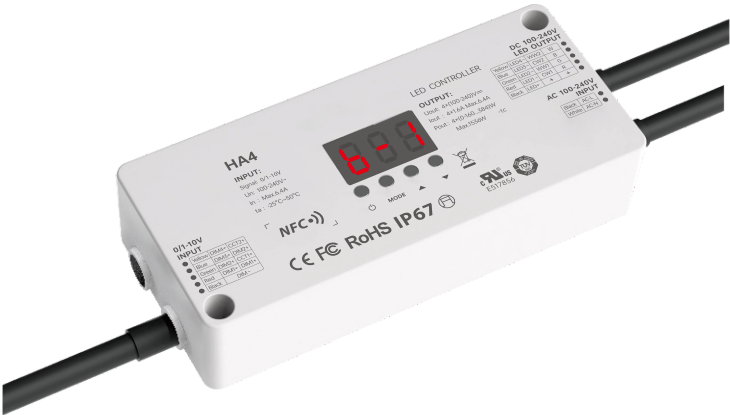# HA4

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.
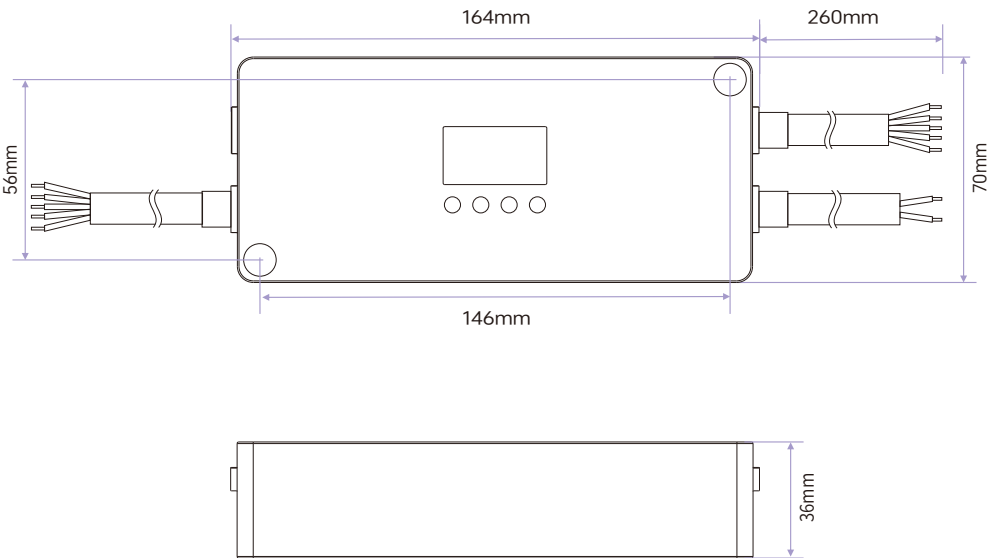
By connecting 0/1-10V dimmers to channels 1-4, it flexibly enables dimming, color temperature adjustment, and full-color RGB/RGBW control for diverse lighting requirements. For user convenience, it supports both quick on/off, dimming, and color adjustment via button-operated digital displays, as well 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.
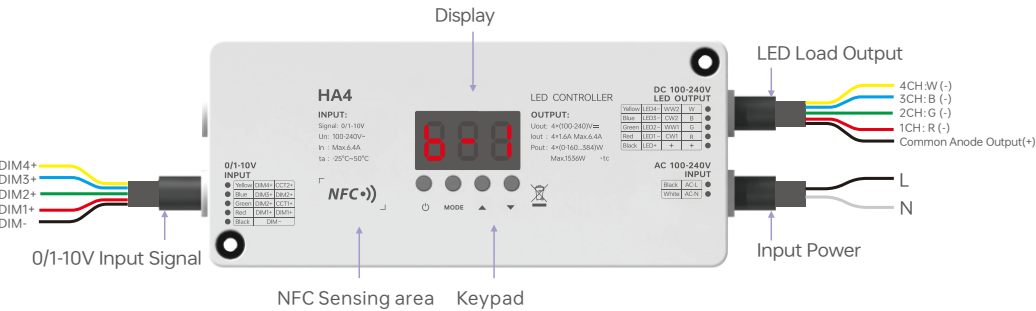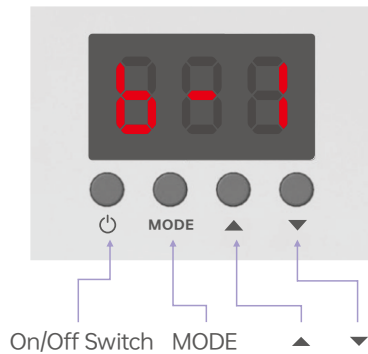
Technical Specifications

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 with automatic reset capability
Surge:	4KV		

1

Product Dimensions

164mm

260mm

56mm

70mm

146mm

36mm

Parts Diagram

Display

LED Load Output

HA4

INPUT:
Signal: 0/1-10V
Uin: 100-240V~
Iin : 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
Max1536W   -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(+)

DIM4+
DIM3+
DIM2+
DIM1+
DIM-

**0/1-10V
INPUT**

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

NFC•))

AC 100-240V
INPUT

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

L
N

0/1-10V Input Signal

Input Power

⏻ MODE ▲ ▼

NFC Sensing area   Keypad

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
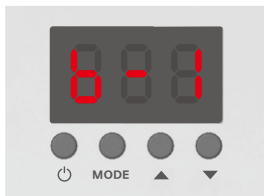
• b-1:5% Brightness
• b-2:10% Brightness
• b-3:25% Brightness
• b-4:50% Brightness
• b-5:75% Brightness
• b-6:100% Brightness(Default)
• b-P:When in long-press adjustment mode or other adjustment methods, the display shows b-P.
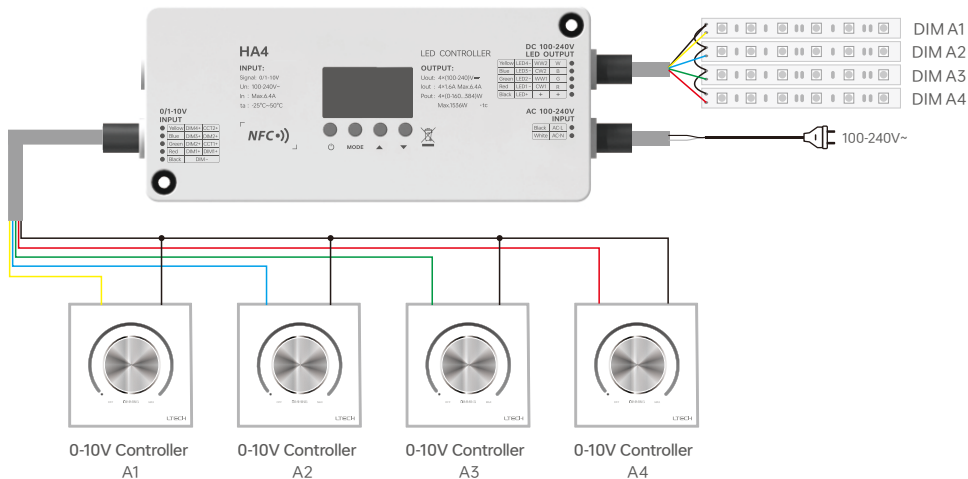
Color Temperature Adjustment
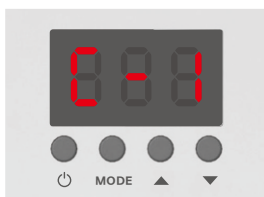
• C-1:2700K
• C-2:3000K
• C-3:4000K(Default)
• C-4:5000K
• C-5:6000K
• C-6:6500K
• C-P:When in long-press adjustment mode or other adjustment methods, the display shows C-P.

Connection Diagram

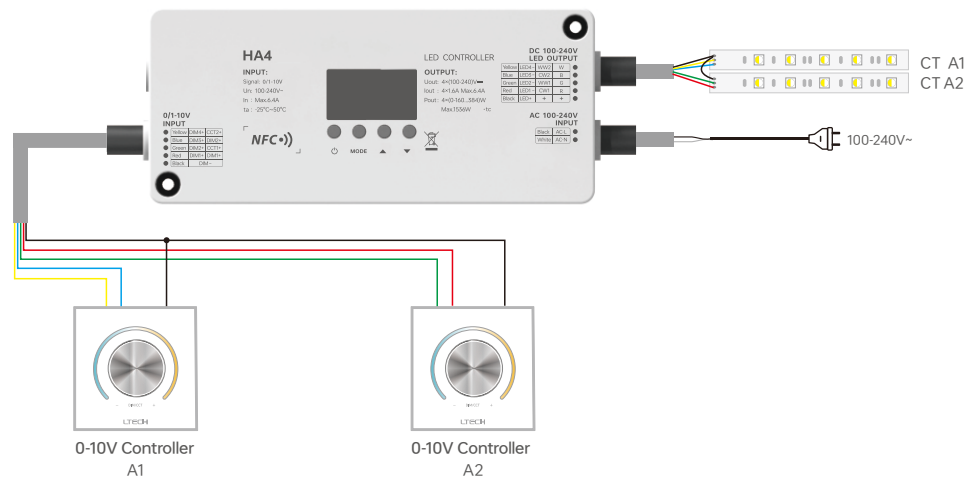**1.Connect four dimmable lights simultaneously, with each dimmer controlling one light.**

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
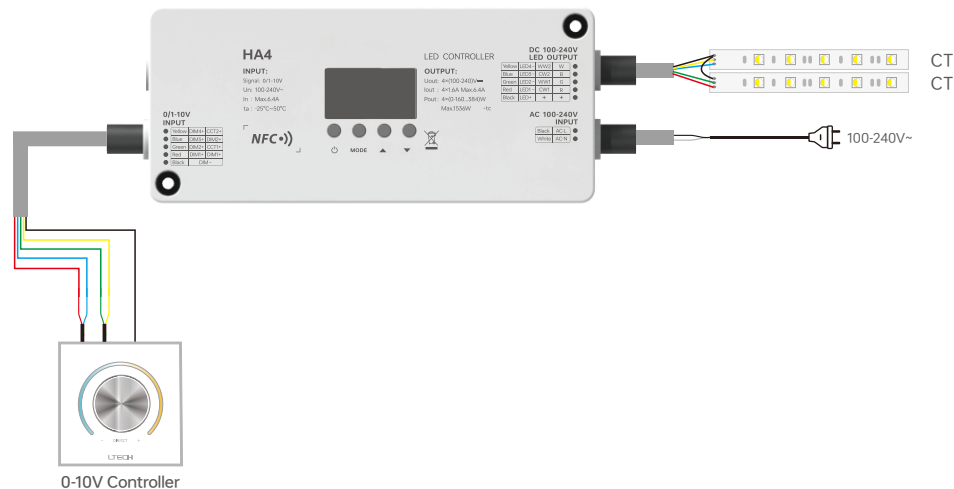DIM
DIM
DIM

100-240V~
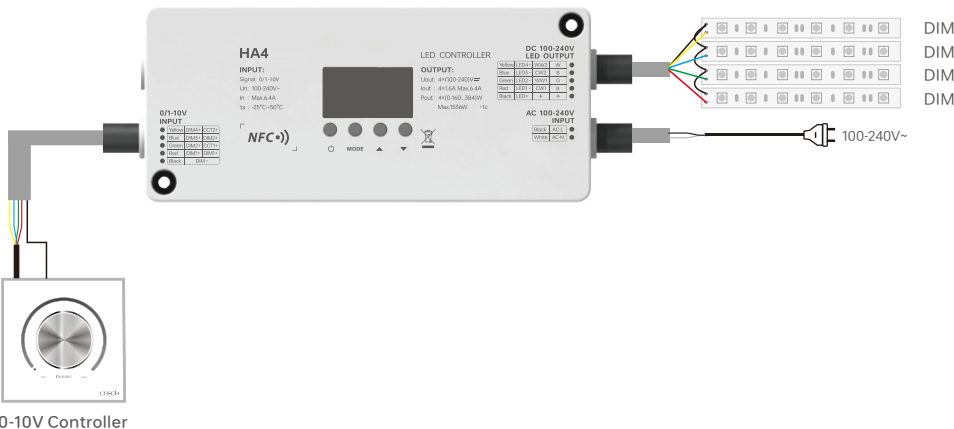
0-10V Controller

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

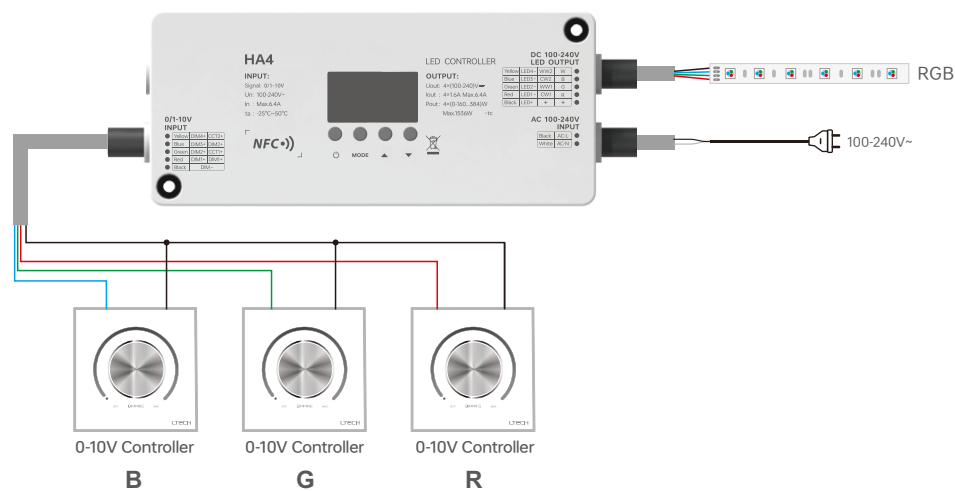Set the dimming mode to "CT" in the NFC Lighting app.

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.

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**

RGB

100-240V~

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**

RGBW

100-240V~
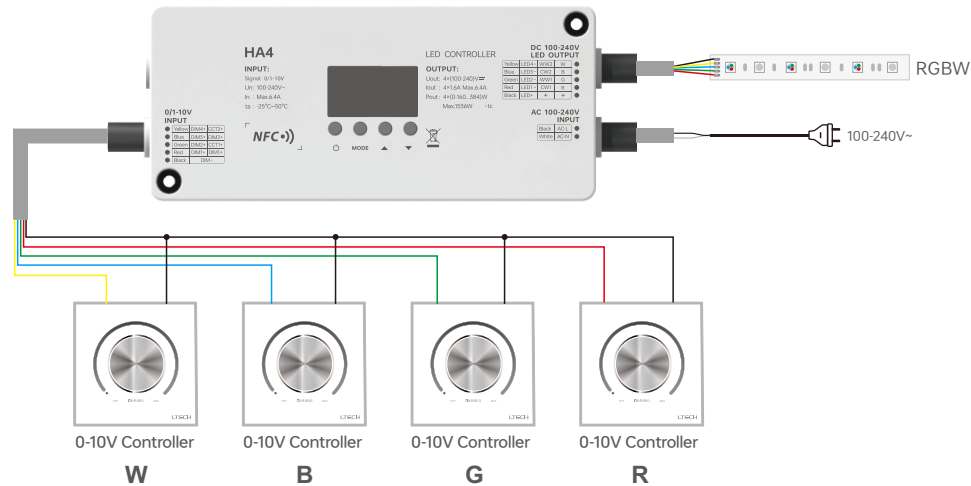
Use the NFC Lighting APP

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 APP
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.
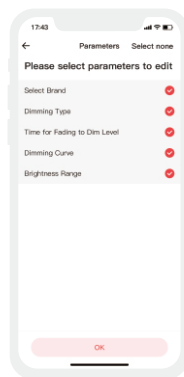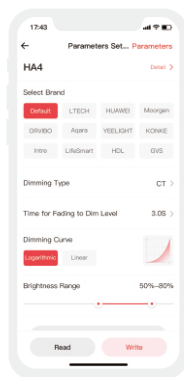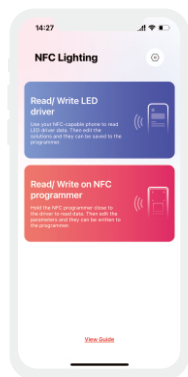
Transportation and Storage

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.

HA4
0/1-10V 高压防水控制器

NFC•))   CE   RoHS   IP67

HA4是一款具备IP67防水等级的高性能0/1-10V信号LED恒压控制器，专为精准调控LED灯具设计。该控制器支持标准0/1-10V调光信号输入，配备4路信号输入通道与4路高压PWM负载输出通道，可轻松满足多场景控制需求。其输出性能强劲，最大输出电流可达6.4A，最大输出功率高达1536W，能稳定驱动各类LED恒压灯具。
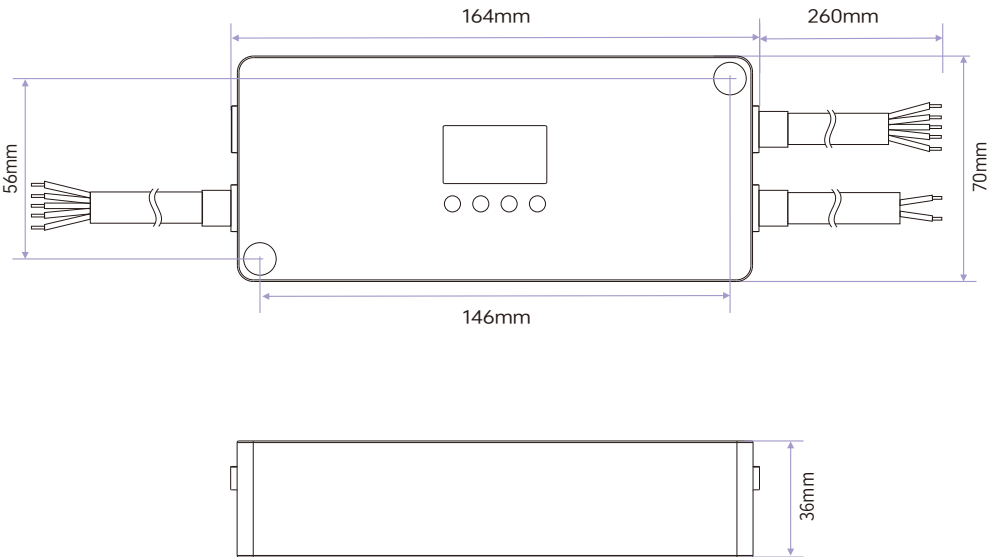
通过连接1-4通道0/1-10V调光器，可灵活实现灯具的调光、色温调节及RGB、RGBW全彩控制，适配多样化照明需求。操作便捷性上，既支持通过按键数码管进行快捷开关、调光调色等基础操作，也可借助NFC Lighting app设置控制器调光方式、调光渐变时间、调光曲线、调光范围等参数，兼顾直观操作与深度定制。

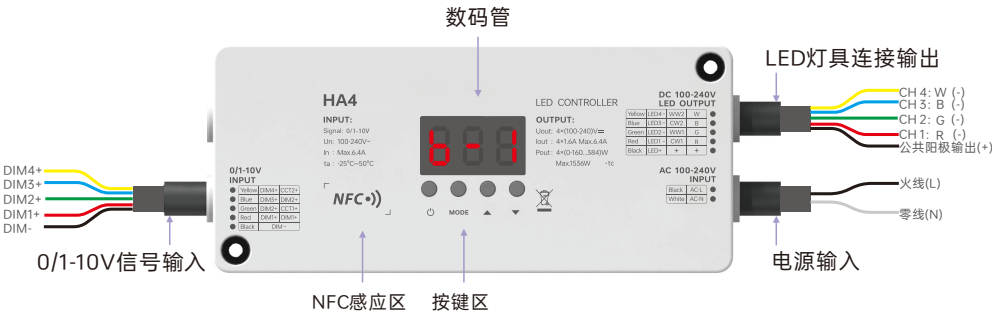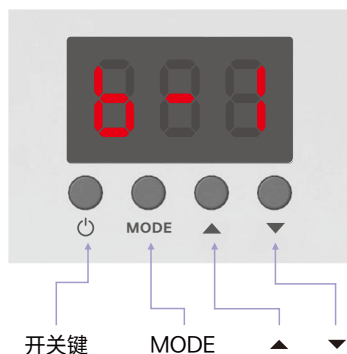凭借IP67级防水性能与稳定的运行表现，HA4可广泛应用于室内外各类环境，即使在潮湿场景中也能可靠工作，为照明系统提供高效、灵活的控制解决方案。

技术参数

HA4

输入信号:	0/1-10V	工作温度:	-25℃-50℃
输入电压:	100-240V~	产品重量:	670克
输入电流:	Max. 6.4A	产品尺寸:	L164×W70×H36mm
输出电压:	4×(100-240)V⎓	包装尺寸:	L230×W95×H47mm
输出电流:	4路×1.6A Max. 6.4A	防水等级:	IP67
输出功率:	4路×(0-160...384)W Max. 1536W	保　护:	短路、过温、过流保护
浪　涌:	4KV		

产品尺寸

产品部件图

数码管

LED灯具连接输出

CH 4: W (-)
CH 3: B (-)
CH 2: G (-)
CH 1: R (-)
公共阳极输出(+)

火线(L)
零线(N)

DIM4+
DIM3+
DIM2+
DIM1+
DIM-

0/1-10V信号输入

NFC感应区   按键区

电源输入

2

开关键　　　　MODE　　▲　　▼

按键操作

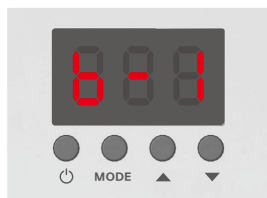(1)开关键：短按1次可以执行开灯或关灯的操作。

(2)切换键：根据当前设备调光接口，具有不同的操作。

• W: 一直处于亮度调节，短按无动作；

• CT: 亮度（默认）/色温，短按可以切换；

当无操作2分钟后，会自动回到默认
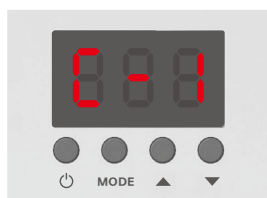
(3)减少/增加键：当灯具处于开启状态时，短按一次可以切换一个挡位，长按可以持续调节当前模式，不可循环。

数码管界面图

亮度调节

• b-1:5%亮度
• b-2:10%亮度
• b-3:25%亮度
• b-4:50%亮度
• b-5:75%亮度
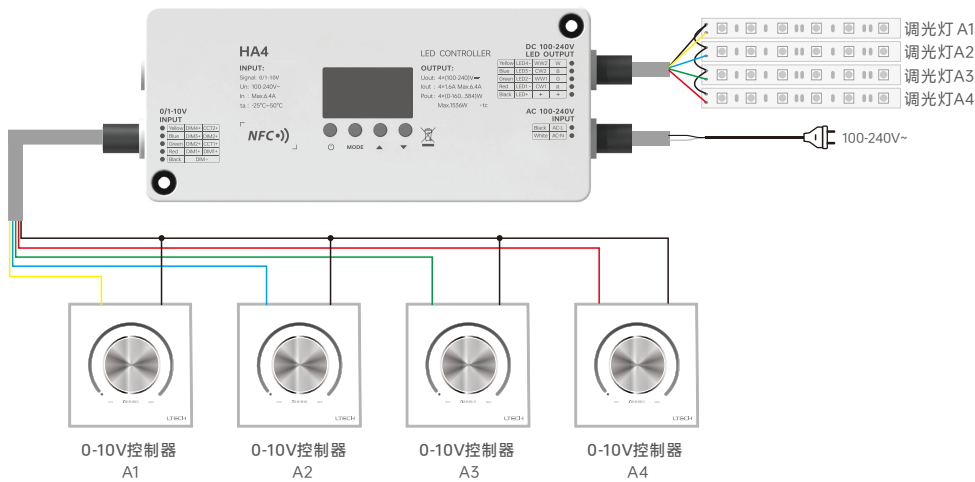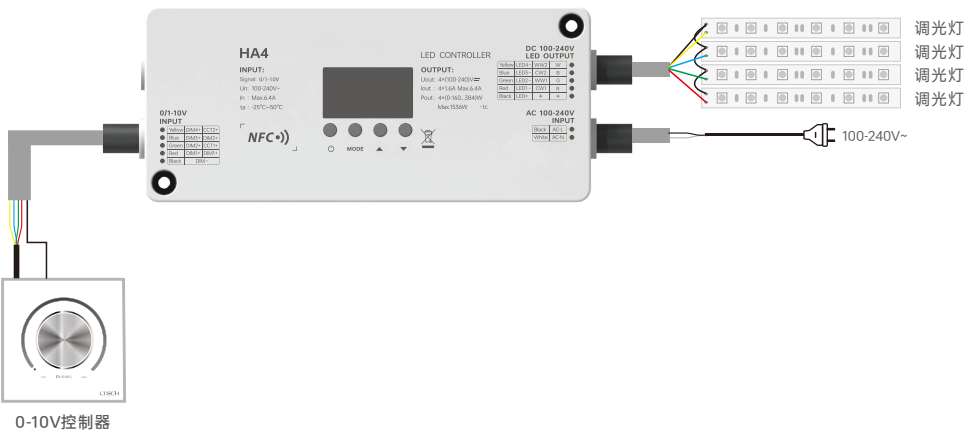• b-6:100%亮度（默认）
• b-P:当处于长按调节或其他手段调节后显示B-P

色温调节

• C-1:2700K
• C-2:3000K
• C-3:4000K(默认)
• C-4:5000K
• C-5:6000K
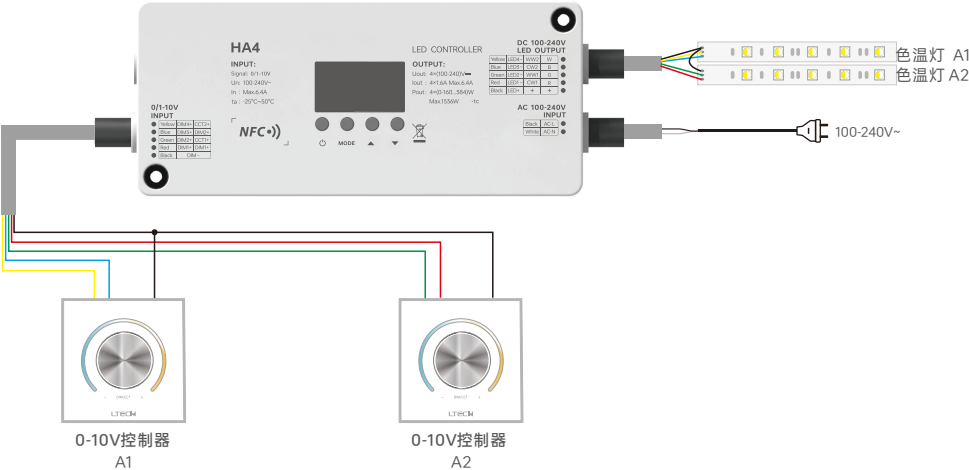• C-6:6500K
• C-P:当处于长按调节或其他手段调节后显示C-P

连接示意图

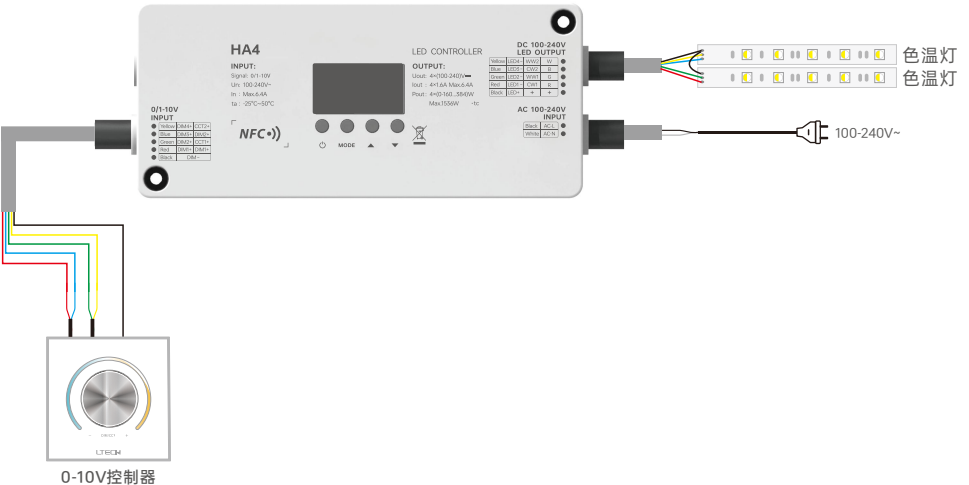## 1.同时接4个调光灯，4个调光器分别控制4个灯
需要在NFC lighting APP中设置调光方式为调光

0-10V控制器 A1　　0-10V控制器 A2　　0-10V控制器 A3　　0-10V控制器 A4

2.同时接4个调光灯，1个调光器同时控制4个灯
需要在NFC lighting APP中设置调光方式为调光

0-10V控制器

3.同时接2个色温灯，2个控制器分别控制2个灯
需要在NFC lighting APP中设置调光方式为色温

色温灯 A1
色温灯 A2

100-240V~

0-10V控制器
A1

0-10V控制器
A2

4.同时接2个色温灯，1个控制器同时控制2个色温灯
需要在NFC lighting APP中设置调光方式为色温

色温灯
色温灯

100-240V~

0-10V控制器

5.接1个RGB灯,3个控制器分别控制R、G、B通道
需要在NFC lighting APP中设置调光方式为调光

0-10V控制器	0-10V控制器	0-10V控制器
B	**G**	**R**

6.接1个RGBW灯，4个控制器分别控制R、G、B、W通道
需要在NFC lighting APP中设置调光方式为调光

0-10V控制器	0-10V控制器	0-10V控制器	0-10V控制器
W	**B**	**G**	**R**
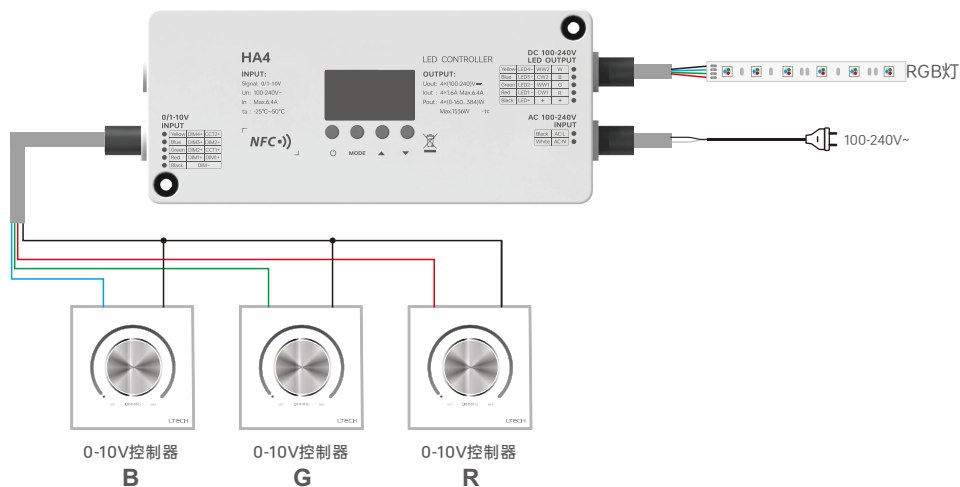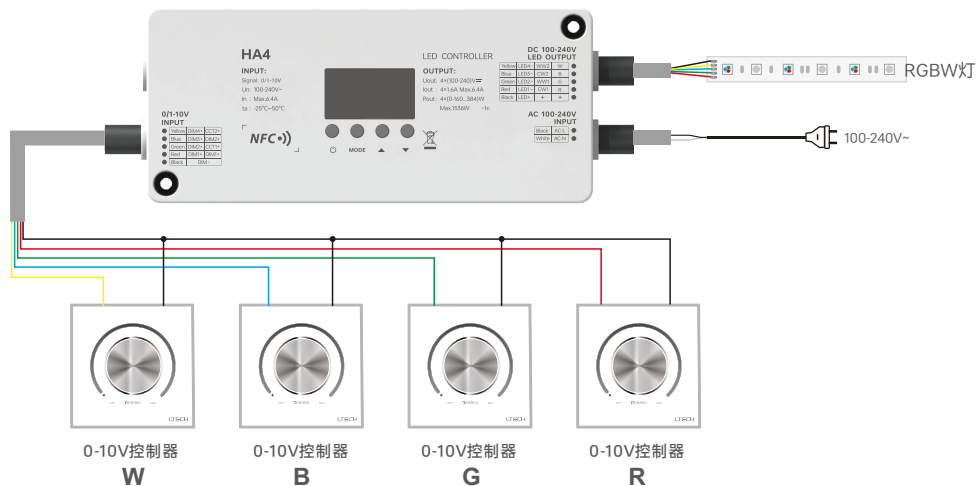
搭配NFC Lighting APP使用

通过手机扫描下方二维码，按提示完成APP安装。(因性能需求，要求手机型号苹果：iPhone8及以上、且操作系统iOS13 及以上；安卓：具备NFC功能机型）

扫码下载APP
ios/apk

设备NFC感应区
*设置设备参数时，
必须在设备断电情况下进行操作。
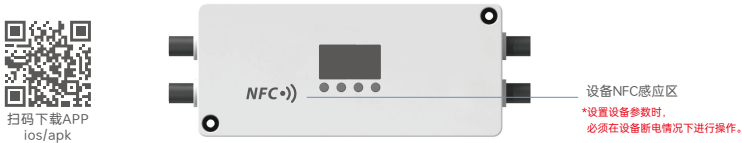
1.读取设备

在APP【首页】点击"读/写智能电源"将手机感应区域靠近驱动器NFC感应区，读取设备参数。

2. 编辑参数

点击【参数管理】可编辑选择品牌、调光方式、通电渐变时间、调光曲线、亮度范围等参数。

3. 写入驱动器

参数设置完成后，点击右上角【写入】，将手机感应区域靠近驱动器NFC感应区 即可写入驱动器成功修改参数。

运输和贮存

1. 运输

产品适用车、船、飞机交通运输工具运输。

在运输中，应使用遮蓬进行防雨和防晒，并保持文明装卸，不应有剧烈振动、撞击等。

2. 贮存

贮存符合 I 类环境的规定。贮存期限超过6个月的产品建议重新检验，合格后方可使用。

保修协议

- 自出厂之日起保修服务期为5年。
- 在保修服务期内出现产品质量问题我司将给予免费修理或更换服务。

非保修条例:

属下列情况不在免费保修或更换服务范围之内:

- 已经超出保修服务期;
- 过高电压、超负载、操作不当等人为造成的损坏;
- 产品外形严重损坏或变形;
- 自然灾害以及人力不可抗拒原因造成的损坏;
- 产品保修标签和产品唯一条形码损坏;
- 无我司签订的合同或发票凭证。

1. 修理或更换是我司对客户的唯一补救措施。雷特不承担任何附带引起的损害赔偿责任,除非在适用法律范围之内。

2. 我司享有修正或调整本保修条款的权利,并以书面形式发布为准。

注意事项

- 本产品请由具有专业资格的人员进行调试安装;
- 我司产品(专有型号除外)不能防水防雷,需避免日晒雨淋,如安装在户外,请用防水箱和防雷装置;
- 良好的散热条件会延长产品的使用寿命,请把产品安装在通风良好的环境;
- 安装时,避免靠近大面积金属物体,或堆叠摆放,以免信号干扰影响使用;
- 避免安装在雷区、强磁场和高压区域;
- 请检查使用的工作电压是否符合产品的参数要求;
- 通电调试前,确保所有接线正确且牢固,以免短路损坏部件,触发事故;
- 如果发生故障,请勿私自维修;如果有疑问,请联系供应商。

* 本说明书的内容如有变更,恕不另行通知。若内容与您使用的功能有所不同,则以实物为准。如有疑问,请与供应商联系。