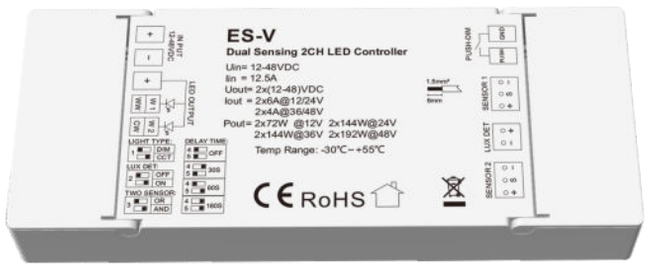
ES-V

Dual Sensing 2CH LED Controller

Sensor

- Dual sensor inputs to control single color or color temperature low voltage LED strip or other low voltage powered devices.
- Compatible with a variety of sensing probes, including PIR human motion sensor, door sensor, hand sweep sensor, etc.
- Connect the self-reset switch for on/off, brightness and color temperature adjustment.
- DIP switch to set light type, daylight detection switch, delay light off time.
- Can be applied to staircase light control, bedroom, living room, cabinet, wardrobe and other light control.



CE RoHS emc RED

Dual Induction / Multiple sensing probes / Dimming and CCT control / Push-Dim

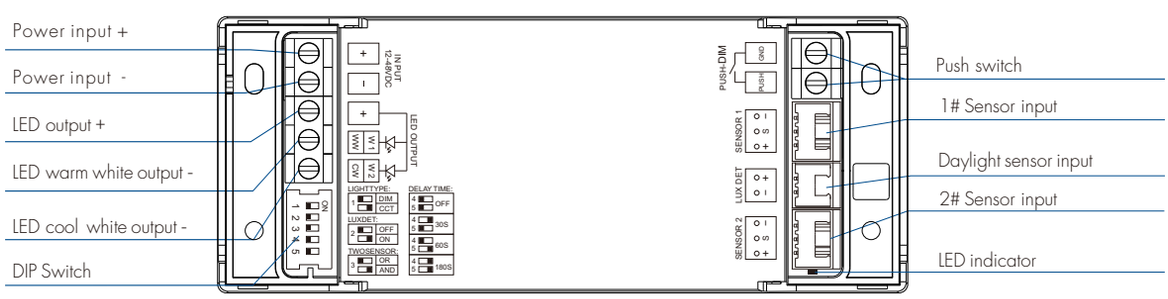
Technical Parameters

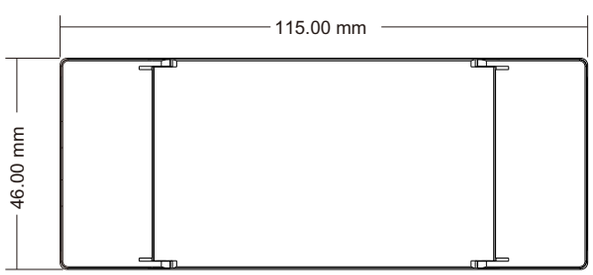
Input and Output			
Input voltage	12-48VDC		
Input current	12.5A		
Output voltage	2×(12-48)VDC		
Output current	2x 6A@12/24V 2x 4A@36/48V		
Output power	2 x 72W @12V 2 x 144W@36V	2 x 144W@24V 2 x 192W@48V	
Warranty			
Warranty	5 years		

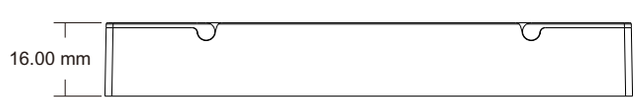
Dimming data	
Input signal	Push switch
Dimming range	10-100%
Dimming gray scale	4096 (2^12) level
PWM Frequency	2000Hz (default)
Package	
Size	L120 x W78 x H55mm
Gross weight	0.21kg
Protection	
Protection	Over-heat, Over-load

Safety and EMC	
EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard	EN 62368-1:2020+A11:2020
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,RED
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

Mechanical Structures and Installations

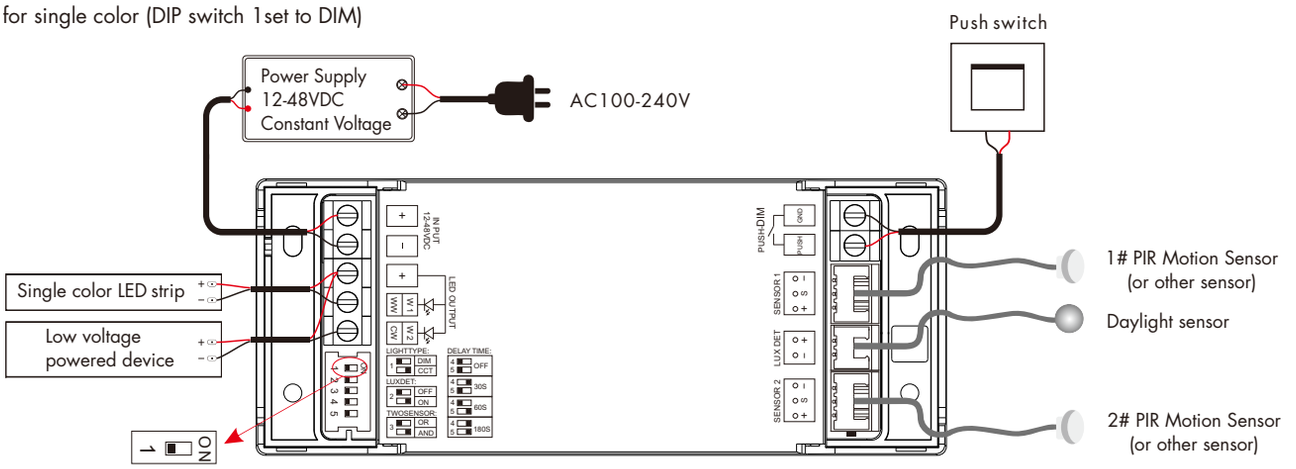






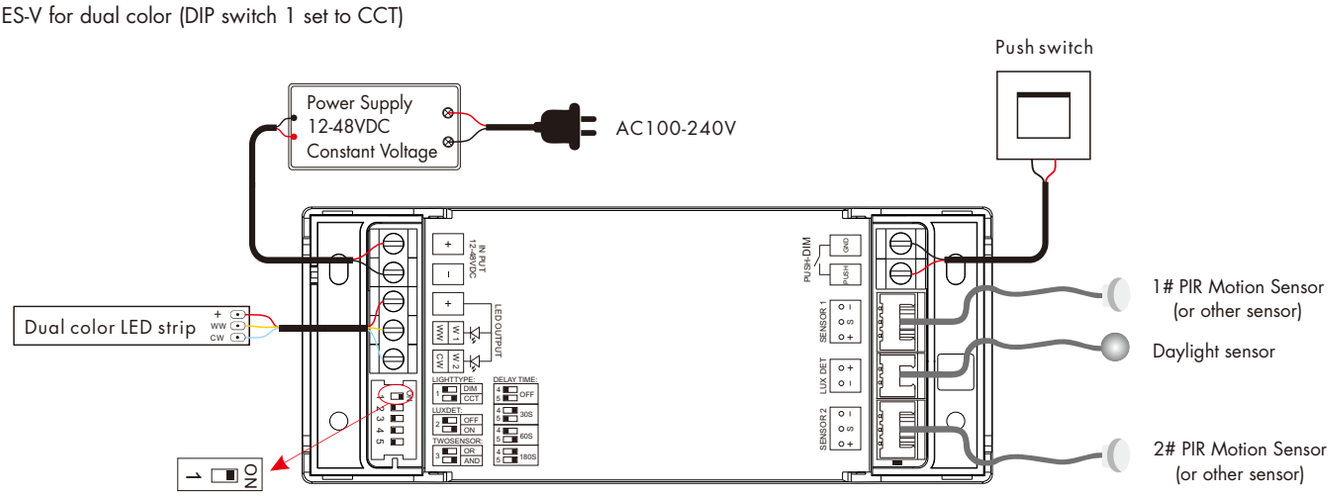
Wiring Diagram

- ES-V for single color (DIP switch 1set to DIM)



Note: The W2 channel output is not dimmable and is used for inductive control of other low voltage powered devices.

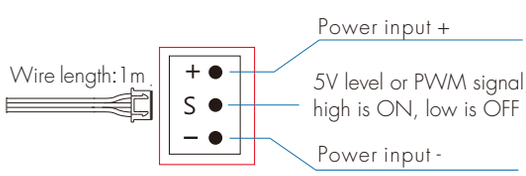
- ES-V for dual color (DIP switch 1 set to CCT)



DIP switch setting

DIP switch 1: Set single color or color temperature light type.
DIP switch 2: Set light sensing detection on or off, for PIR motion sensing only;
Set to off when connecting other sensing probes.
DIP switch 3: Lights off when both sense inputs are off at the same time,
set to AND for dual door control sensing only;
Lights on when either sense input is on, set to OR for other sensing probes.
DIP switches 4 & 5: For PIR motion sensing, set the light off time delay: 30s, 60s, 180s;
Set to OFF when connecting other sensing probes.

Sensor wire define



Push Dim Function

The self-reset switch interface can be connected to a self-reset panel switch or a self-reset button to dim the light.
The brightness and color temperature values of the controller can only be adjusted by the self-reset switch,
and the sensor probe input only controls the light on and off.

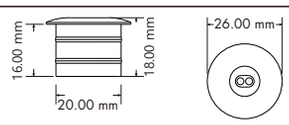
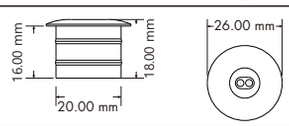
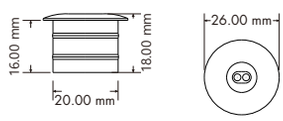
1. Single color light type

- **Short press:** Turn on or off the light.
- **Long press (1-6s):** Brightness increases or decreases continuously,
each time you release and then long press again, the brightness changes in the opposite direction, brightness range 10%-100%.
- **Double click:** Switch 10% or 100% brightness.

2. Color temperature light type

- **Short press:** Turn on or off the light.
- **Long press (1-6s):** Default long press to adjust the brightness, the brightness increases or decreases continuously,
every time you release and then long press again, the brightness changes in the opposite direction, the brightness range 10%-100%.
In the light off state or color temperature adjustment state, long press to adjust the color temperature,
every time you release and long press again, the color temperature changes in the opposite direction.
- **Double click:** In the light on state, switch three levels of color temperature (Warm White - Positive White - Cool White),
and at the same time, enter the state of long-press to adjust the color temperature.

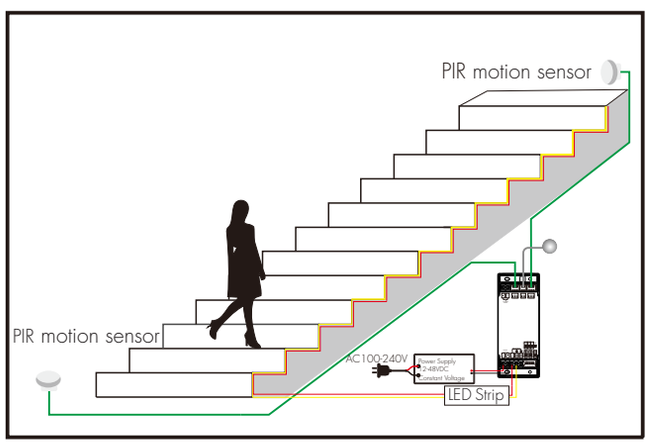
Available sensor probes

Model and Product name	Product picture	Size	Sensor Data
ER-C PIR motion sensor			Sensitive field: ⩽3m Sensitive angle: 20-40
ED-C Door Sensor			Sensitive field: 1-6cm Sensitive angle: 15-25
EB-C Hand Sweep Sensor			Sensitive field: 1-6cm Sensitive angle: 15-25

Typical Induction Probe Application Installation

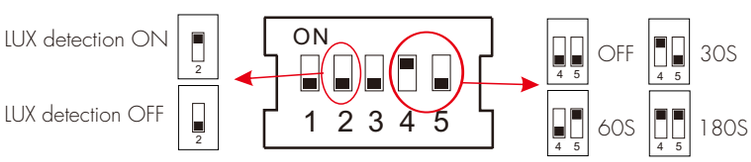
• Connect with two PIR motion sensing probes for staircase light control.

Two PIR motion sensing probes are installed at the top and bottom of the stairs.
When a person enters the sensing range at the top or bottom of the staircase,
the PIR motion sensing probes are triggered and the light is automatically switched on,
with a delay to switch off the light.
If LUX detection is set to be on, it will be turned on only when the ambient light is low.



The installation method in the picture is for reference only.
Please choose a reasonable location for installation according to the actual situation.

DIP switch setting:



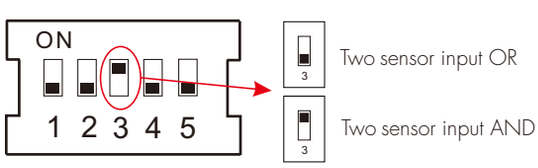
DIP switch 2 sets light sensing detection on or off.
DIP switch 3 must set to OFF,
DIP switch 4&5 set the light off delay time: 30s, 60s, 180s.
DIP switches 2/4/5 should only be used for stair light PIR motion sensing control.

• Connect with one or two door sensing probes for single/double door light sensing switch.

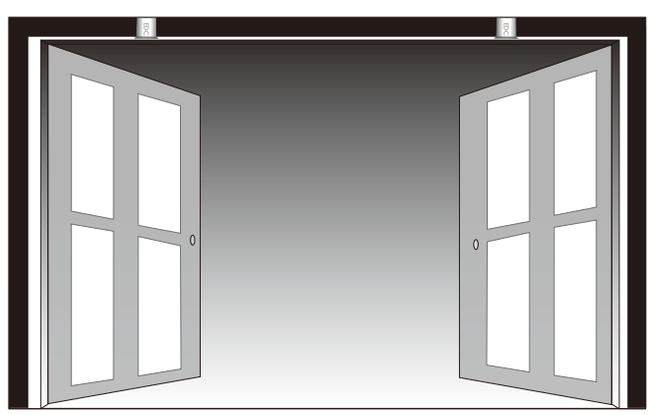
Single Door Installation: Connect any of the door sensing probes and DIP switch 3 to set two sensor input OR.
When the door is open, the light is on; when the door is closed, the light is off.

Double Door Installation: Connect two door sensing probes at the same time, and DIP switch 3 to set two sensor input AND.
When either door is open, the light is on; when both doors are closed, the light is off.

DIP switch setting:



DIP switch 3 set to ON should only be used for dual door control sensing,
set to OFF for other sense inputs.
When the door control, hand swipe or touch sensing probe is connected,
DIP switches 2&4&5 must set to OFF, i.e., no LUX detection, no light delay off.



Packing List

LED Controller
1pcs

User Manual
1 pcs

Daylight sensor (30cm)
1 pcs

PIR sensor (1.2m)
2 pcs

PIR sensor extension line (5m)
2 pcs