

# V1-L

## Single Color LED Controller

- 4096 levels 0-100% dimming smoothly without any flash.
- Match with RF 2.4G single zone or multiple zone dimming remote control.
- One RF controller accept up to 10 remote control.
- Auto-transmitting function: Controller automatically transmit signal to another controller with 30m control distance.
- Synchronize on multiple number of controllers.
- Connect with external push switch to achieve on/off and 0-100% dimming function.
- Light on/off fade time 3s selectable.
- Over-heat / Overload / Short circuit protection, recover automatically.



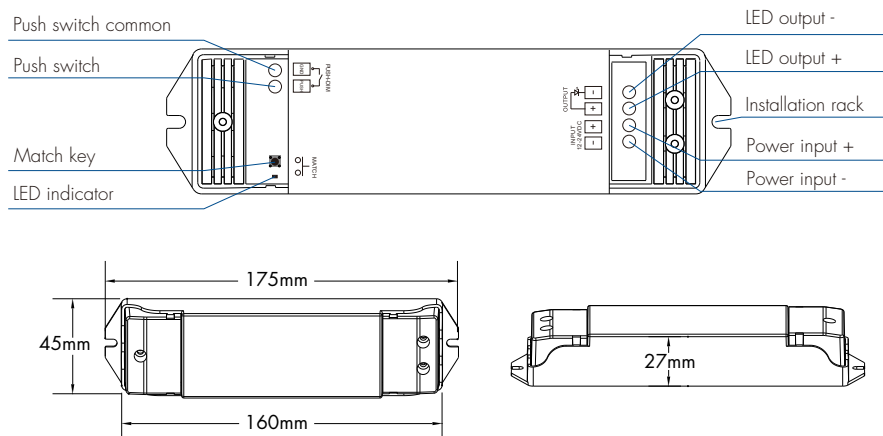
RF DIM

CE RoHS

### Technical Parameters

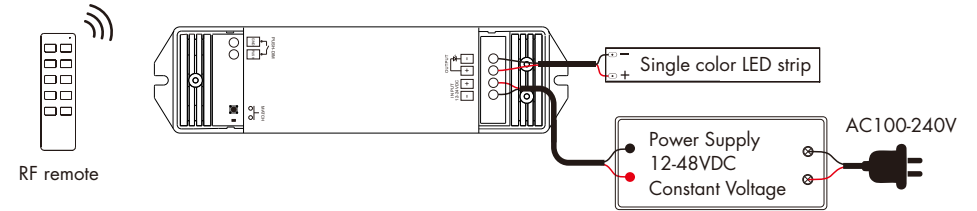
| Input and Output |  | Dimming data       |                         | Safety and EMC          |   |
|------------------|--|--------------------|-------------------------|-------------------------|---|
| Input voltage    | 12-48VDC                               | Input signal       | RF 2.4GHz+Push Dim      | EMC standard            | EN IEC 55015/<br>EN IEC 61547<br>ETSI EN 301 489-1/-3 |
| Output voltage   | 12-48VDC                               | Control distance   | 30m(Barrier-free space) | Safety standard         | EN 61347-1/-2   |
| Output current   | 15A@12/24V<br>10A@36/48V               | Dimming gray scale | 4096 (2^12) levels      | Radio Equipment         | ETSI EN 300 440                                       |
| Output power     | 180W@12V,360W@24V<br>360W@36V,480W@48V | Dimming range      | 0 -100%                 | Certification           | CE RoHS   |
| Output type      | Constant voltage                       | Dimming curve      | Logarithmic             | <b>Environment</b>      |   |
| <b>Warranty</b>  |  | PWM frequency      | 500Hz (default)         | Operation temperature   | Ta: -30°C ~ +55°C                                     |
| Warranty         | 5 years                                | <b>Package</b>     |                         | Case temperature (Max.) | Tc: +85°C   |
|                  |  | Size               | L178 x W50 x H38mm      | IP rating               | IP20  |
|                  |  | Gross weight       | 0.116kg                 |                         |   |

### Mechanical Structures and Installations

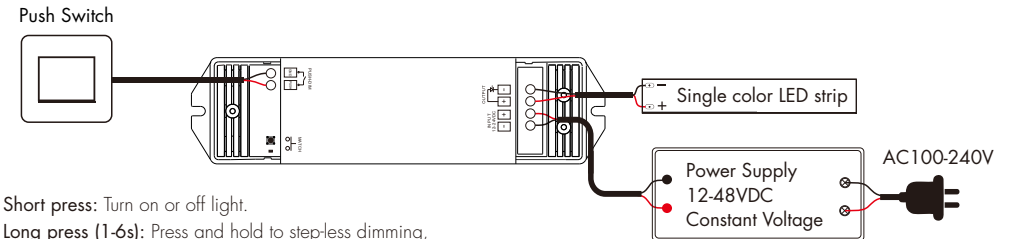


### Wiring Diagram

- Match with dimming remote



- Connect with push switch



**Short press:** Turn on or off light.

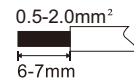
**Long press (1-6s):** Press and hold to stepless dimming, With every other long press, the light level goes to the opposite direction.

**Note:**

When using a self-reset switch to synchronize control of multiple V1-L, please long press the self-reset switch for 10s to synchronize all dimmers to the highest brightness before controlling.

#### Wire Preparation:

1. The wiring can be solid or stranded with a cross-sectional area of 0.5 to 2 mm<sup>2</sup>. Conventional 1mm<sup>2</sup> can withstand 10A output current.
2. When wiring is installed, the terminals must be tightened. If they are not tightened, the contact point resistance will be too high and the terminals will easily burn due to heat when used at full load for a long time.



**Note:**

The output power of a constant voltage power supply should be at least 1.2 times that of the output load (light strip), otherwise the full power output of the load can easily cause automatic flickering or shaking of the light.

### Match Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two options are offered for selection:

#### Use the controller's Match key

**Match:**

Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) on the remote. The LED indicator fast flash a few times means match is successful.

**Delete:**

Press and hold match key for 5s to delete all match, The LED indicator fast flash a few times means all matched remotes were deleted.

#### Use Power Restart

**Match:**

Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote. The light blinks 3 times means match is successful.

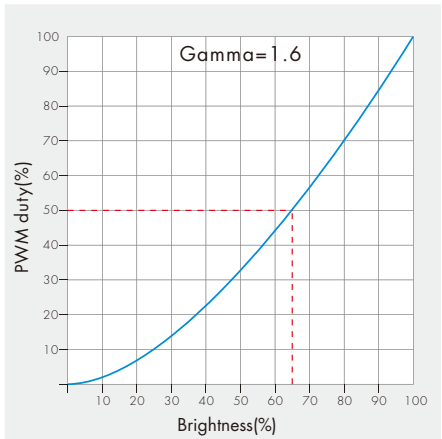
**Delete:**

Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. The light blinks 5 times means all matched remotes were deleted.

## Light on/off Fade Time

Long press match key 5s, then short press match key 3 times, the light on/off time will be set to 3s, the indicator light blink 3 times.  
Long press match key 10s, restore factory default parameter, the light on/off time also restore to 0.5s.

## Dimming curve



## Malfunctions Analysis & Troubleshooting

| Malfunctions  | Causes   | Troubleshooting   |
|---|--|---|
| No light  | 1. No power.<br>2. Wrong connection or insecure.   | 1. Check the power.<br>2. Check the connection.   |
| Uneven intensity between front and rear,with voltage drop | 1. Output cable is too long.<br>2. Wire diameter is too small.<br>3. Overload beyond power supply capability.<br>4. Overload beyond controller capability. | 1. Reduce cable or loop supply.<br>2. Change wider wire.<br>3. Replace higher power supply.<br>4. Add power repeater. |
| No response from the remote                               | 1. The battery has no power.<br>2. Beyond controllable distance.<br>3. The controller did not match the remote.  | 1. Replace battery.<br>2. Reduce remote distance.<br>3. Re-match the remote.  |

## Installation Precautions

1. The products shall not be stacked, the distance should be  $\geq 20\text{cm}$ , so as not to affect lifespan of the products due to poor heat dissipation.
2. The product shall not be installed close to the switching power supply with an interval of  $\geq 20\text{cm}$  to avoid radiation interference of the switching power supply.
3. The installation height shall be  $\geq 1\text{m}$  from the floor to avoid shortening the remote control distance due to too weak reception signal.
4. The products are not allowed to be close to or covered by metal objects, with an interval of  $\geq 20\text{cm}$  to avoid signal attenuation and shorten the remote distance.
5. Avoid installation at the corner of the wall or the corner of the beam, with an interval of  $\geq 20\text{cm}$  to avoid signal interference.