

Rotary Panel LED Dimmer

Model No.: KV

DC12-48V/Step-less dimming/Wireless remote control/Four PWM frequency/Linear or logarithmic dimming



Features

- Rotary panel constant voltage LED dimmer, 1 channel output.
- Rotate knob to change brightness, support push and long push operation.
- Compatibility with RF 2.4G dimming remote control.
- Logarithmic or linear dimming curve selectable.
- PWM frequency 250Hz, 500Hz, 2kHz or 8kHz selectable.
- Light on/off fade time 3s selectable.

Technical Parameters

Input and Output	
Input voltage	12-48VDC
Output voltage	12-48VDC
Output current	8A@12/24V, 4A@36/48V
Output power	96W/192W/144W/192W (12V/24V/36V/48V)
Output type	Constant voltage

Dimming data	
Input signal	Rotary knob + RF 2.4GHz
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^12) levels
Dimming range	0-100%
Dimming curve	Logarithmic or linear
PWM Frequency	250Hz, 500Hz, 2kHz, 8kHz

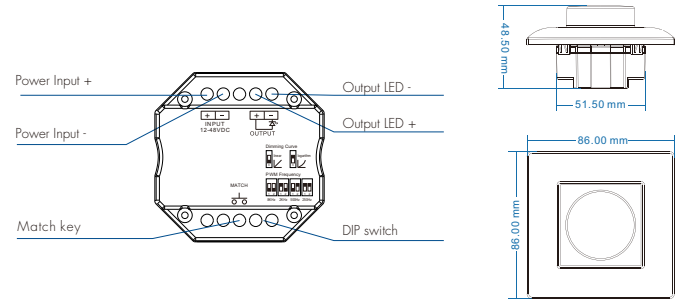
Safety and EMC	
EMC standard [EMC]	EN301 489_EN 62479
Safety standard[VD]	EN60950
Radio Equipment[RED]	EN300 328
Certification	CE,EMC,LVD,RED

Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

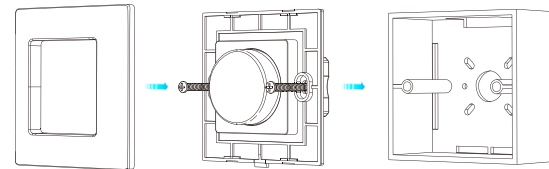
Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity Short circuit

FC RoHS LVD RED

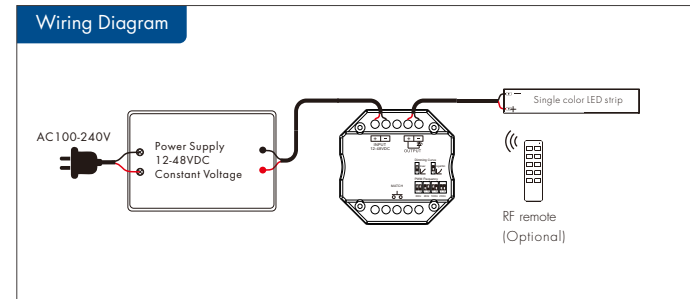
Mechanical Structures and Installations



Installation diagram



Wiring Diagram



Knob function

- Push: Turn on or off light.
After turn on light:
- Rotate: Rotate knob to adjust brightness, 2.5 turns, 50 levels.
- Long push(1-6s): Continuous 256 levels brightness adjustment.

Match remote control (three match ways)

The rotary panel dimmer can also match with the RF dimming remote (optional).
End user can choose the suitable match/delete ways. Three options are offered for selection:

Use Match key

Match:
Short press match key, immediately press on/off key(single zone remote) or zone key(multiple zone remote) of the remote.

Delete:
Press and hold match key for 5s to delete all match.

Use Knob

Match:
Turn on light, turn off, immediately push the knob for 5s, immediately press on/off key(single zone remote) or zone key(multiple zone remote) of the remote.

Delete:
Turn on light, turn off, immediately push the knob for 10s, delete all matched remotes.

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.

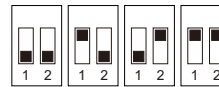
Delete:
Switch off the power, then switch on power. Repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. The light blinks 5 times means all matched remotes were deleted.

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.

PWM frequency setting

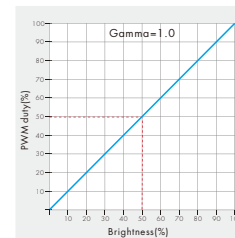


8KHz 2KHz 500Hz 250Hz

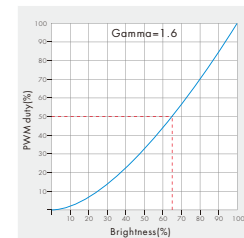
We can select four PWM frequency: 250Hz, 500Hz, 2KHz or 8kHz.
Higher PWM frequency, will cause lower output current, higher power noise,
but more suitable for camera(No flickers for video).

Dimming curve setting

Linear dimming curve



Logarithmic dimming curve



Malfunctions Analysis & Troubleshooting

Malfunctions	Causes	Troubleshooting
No light	<ol style="list-style-type: none"> 1. No power. 2. Wrong connection or insecure. 	<ol style="list-style-type: none"> 1. Check the power. 2. Check the connection.
Uneven intensity between front and rear, with voltage drop	<ol style="list-style-type: none"> 1. Output cable is too long. 2. Wire diameter is too small. 3. Overload beyond power supply capability. 4. Overload beyond controller capability. 	<ol style="list-style-type: none"> 1. Reduce cable or loop supply. 2. Change wider wire. 3. Replace higher power supply. 4. Add power repeater.
No response from the remote	<ol style="list-style-type: none"> 1. The battery has no power. 2. Beyond controllable distance. 3. The controller did not match the remote. 	<ol style="list-style-type: none"> 1. Replace battery. 2. Reduce remote distance. 3. Re-match the remote.