

Model No.: V1-K

Rotary dimming/Numeric display/Max 20A/Four PWM frequency/Linear or logarithmic dimming/Multiple protection

Features

- Rotary dimmer with digital numeric display, visible dimming level.
- Match with RF 2.4G single zone or multiple zone dimming remote control optional.
- 0-100% dimming smoothly without any flash.
- High load current up to 20A.
- Logarithmic or linear dimming curve selectable.
- PWM frequency 500Hz, 2kHz, 8kHz or 16kHz selectable.
- Over-heat / Overload / Short circuit protection, recover automatically.
- Light on/off fade time 3s selectable.



CE RoHS EMC

Technical Parameters

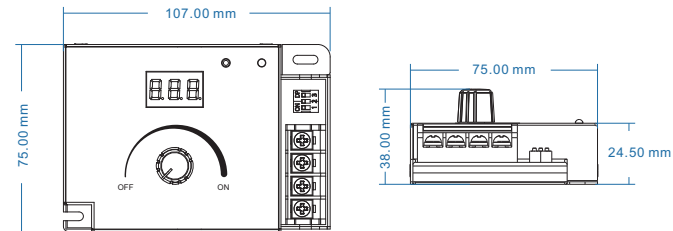
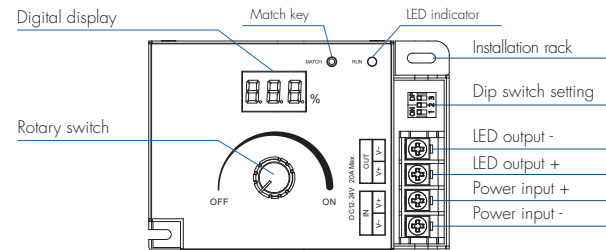
Input and Output	
Input voltage	12-24VDC
Input current	20A
Output voltage	12-24VDC
Output current	1CH,20A Max.
Output power	240W/480W Max. @ (12V/24V) 500Hz PWM
Output type	Constant voltage

Safety and EMC	
EMC standard [EMC]	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard [LVD]	EN 62368-1:2020+A11:2020
Radio Equipment [RED]	ETSI EN 300 328 V2.2.2
Certification	CE, EMC, LVD, RED

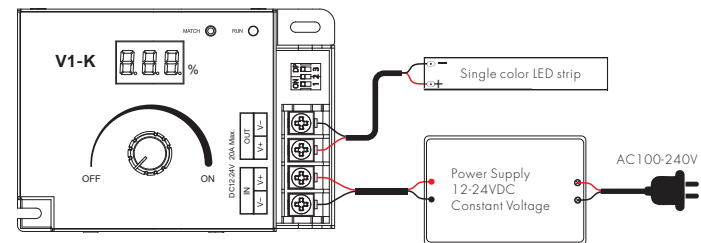
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature [Max.]	Tc: +85°C
IP rating	IP20

Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity Over-heat Over-load Short circuit

Mechanical Structures and Installations



Wiring Diagram



Match Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two 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) 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.

PWM frequency setting

16KHz 8KHz 2KHz 500Hz
10A 10A 15A 20A

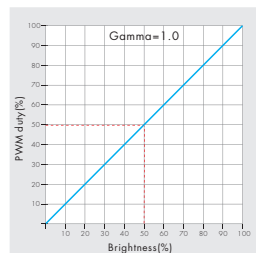


We can select four PWM frequency: 500Hz, 2kHz, 8kHz or 16kHz.

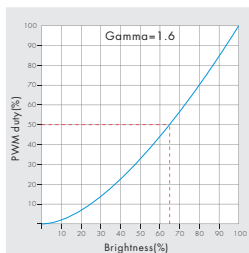
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera (No flickers for video).

Dimming curve setting

Linear dimming curve



Logarithmic dimming curve



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.

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.