

LED Dimmer

Model No.: V1-B

Rotary dimming / Numeric display / Wireless Remote Control / Seven PWM frequency / Multiple protection

Features

- Dual knob constant voltage LED dimmer with digital display.
- Rotate knob to change brightness and breathing fade speed.
- 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.
- PWM frequency 250Hz, 500Hz, 1KHz, 2KHz, 4KHz, 8kHz or 16kHz selectable.
- Over-heat /Short circuit protection, recover automatically.

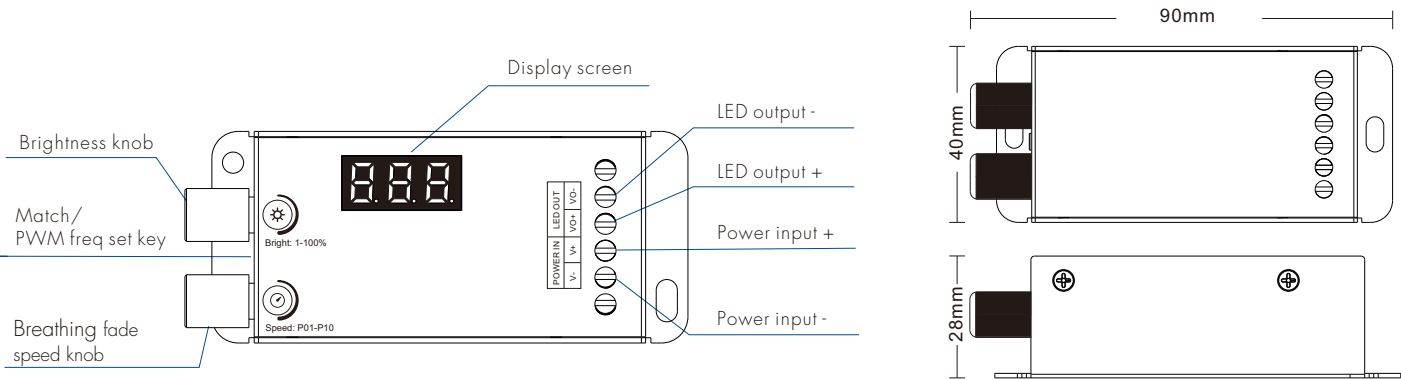


CE RoHS RED

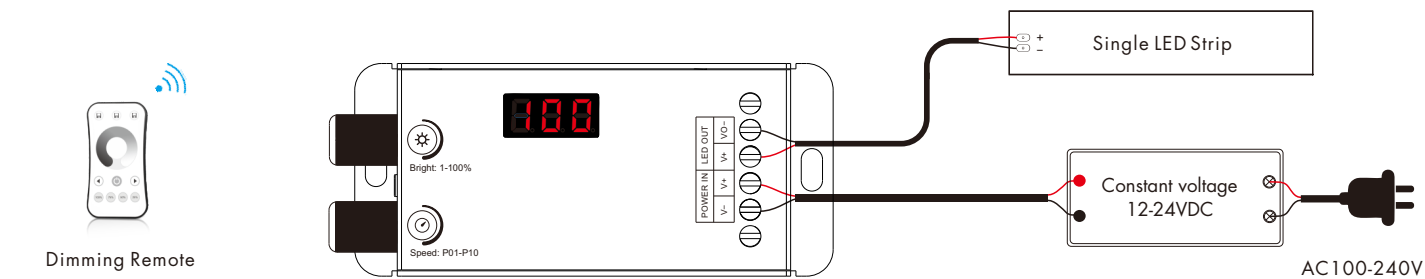
Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	12-24VDC	Input signal	Knob + RF 2.4GHz	EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Input current	20.5A	Control distance	30m(Barrier-free space)	Safety standard	EN 62368-1:2020+A11:2020
Output voltage	12-24VDC	Dimming gray scale	4096 (2^12) level	Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Output current	20A@250/500/2KHz 15A@4K/8KHz 10A@16KHz	Dimming range	0-100%	Certification	CE,EMC,RED
Output power	240-480W@250/500/2KHz 180-360W@4K/8KHz 144-288W@16KHz	Dimming curve	logarithm	Package	
Environment		PWM Frequency	2KHz (default)	Size	L100 x W46 x H38mm
Operation temperature	Ta: -30°C ~ +50°C	Warranty&Protection		Gross weight	0.092kg
Case temperature (Max.)	Tc: +85°C	Warranty	5 years		
		Protection	Reverse polarity Over-heat Short circuit		

Mechanical Structures and Installations



Wiring Diagram



Knob Function



Brightness knob:
rotate knob to adjust 1-100% brightness.
When turn off light, display OFF.



Speed knob:
rotate knob to adjust breathing fade speed, 10 level,
display P01-P10, P10 is the fastest speed.



Breathing fade mode speed, i.e. 1%-100%-1% fade time:

No.	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10
fade time	60S	30S	20S	10S	8S	6S	4S	3S	2S	1S

- Note:
- 1. When adjusting the brightness by brightness knob or remote control will exit the breathing fade mode.
 - 2. When display OLA, overload alarm. When display OHA, overheat alarm.

PWM Frequency Setting

- Push twice Match key fastly, enter PWM frequency setting state,
then rotary speed knob to select seven PWM frequency: 250Hz(F02), 500Hz(F05), 1KHz(F10), 2KHz(F20), 4KHz(F40), 8KHz(F80) or 16KHz(F16).
Rotary brightness knob or timeout 10 seconds, automatically exit PWM frequency setting state.
- Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).
- Default PWM frequency: 2KHz.

Match Remote Control (Optional)

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

Use Match key

Match:
Short press match key, display "RLS",
immediately press on/off key (single zone remote)
or zone key (multiple zone remote) on the remote.
Display "RLO" means match is successful.

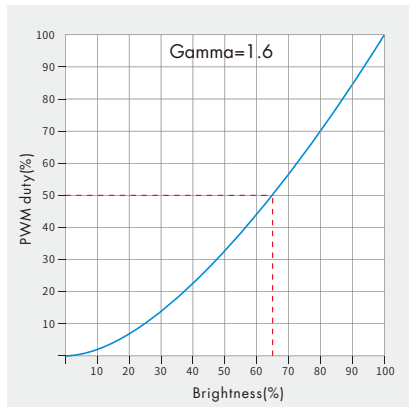
Delete:
Long press match key for 5s to delete all match.
Display "RLE" means all matched remotes were deleted.

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.
Display "RLO" 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.
Display "RLE" means all matched remotes were deleted.

Dimming curve



Installation Precautions

- 1. The products shall not be stacked, the distance should be ≥ 20cm, 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 ≥ 20cm to avoid the radiation interference of the switching power supply.
- 3. The installation height shall be ≥ 1m from the floor to avoid shortening the remote control distance due to too weak reception signal.
- 4. The product are not allowed to be close to or covered by metal objects, with an interval of ≥ 20cm to avoid signal attenuation and shorten remote control distance.
- 5. Avoid installation at the corner of the wall or the corner of the beam, with an interval of ≥ 20cm to avoid signal interference.