Sage V4-K 4 Knob RGBW LED RF Controller User Manual

Sage

4 Knob RGBW LED RF Controller
Model No.: V4-K
V4-K 4 Knob RGBW LED RF Controller
User Manual

4 Channel RGBW/Wireless remote control/Four PWM frequency/Linear or logarithmic dimming/Numeric display

Ver 1.0.2

Contents

Features

- RGBW constant voltage LED RF controller, can also be used as a RGBW RF remote.
- 4 knob dimming, digital numeric display and easy key operation.
- Match with RF 2.4G single zone or multiple zone RGBW remote control optional.
- 256 levels 0-100% dimming smoothly without any flash.
- Built in 10 dynamic mode, include jump or gradual change style.
- PWM frequency 1000/2000/4000/8000Hz selectable.
- Logarithmic or linear dimming curve selectable.

Technical Parameters

Input and Output

Input voltage	12-24VDC
Input current	16.5A
Output voltage	4 x (12-24)VDC
Output current	4CH,4A/CH
Output power	4 x (48-96)W
Output type	Constant voltage

Environment

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

Warranty and Protection

Warranty	5 years
Protection	Reverse polarity

Dimming data

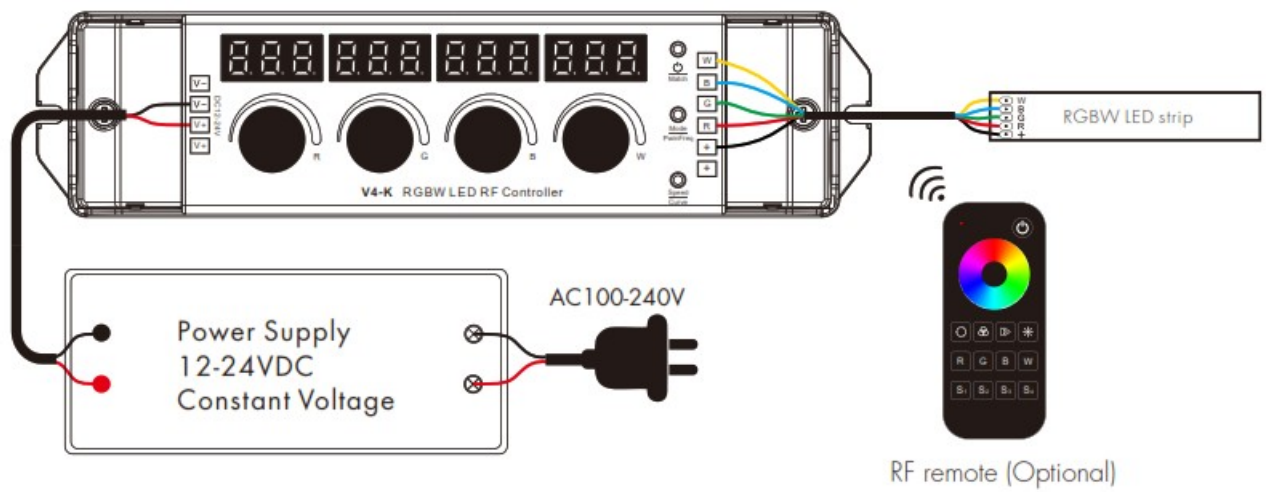| Input signal	Knob + Key + RF 2.4GHz
Input signal	30m(Barrier-free space)
Control distance	256 levels
Dimming gray scale	0 -100%
Dimming curve	Logarithmic or linear
PWM Frequency	1000/2000/4000/8000Hz

Safety and EMC

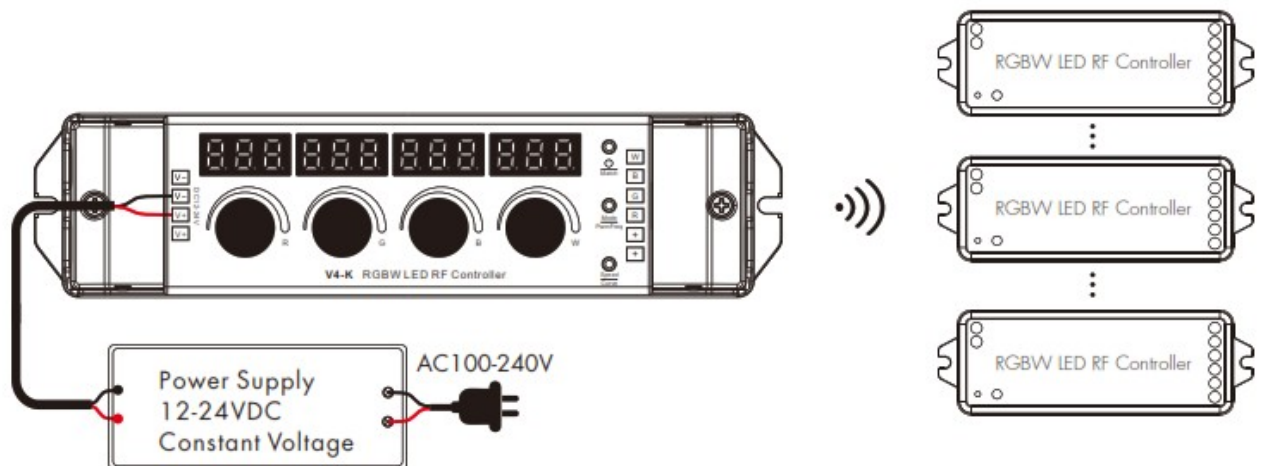| EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard(LVD)	EN 62368-1:2020+A11:2020
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,LVD,RED

Mechanical Structures and Installations
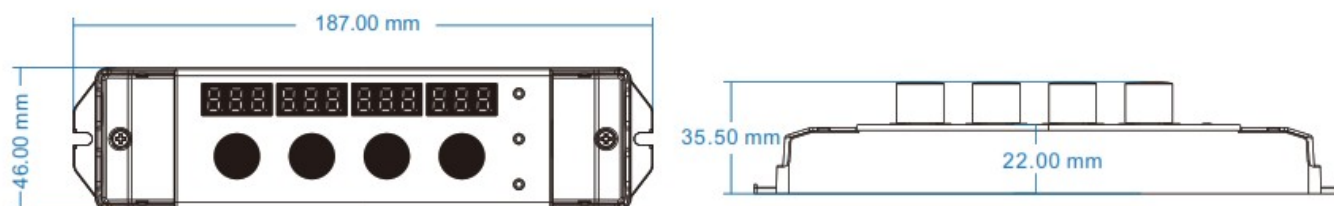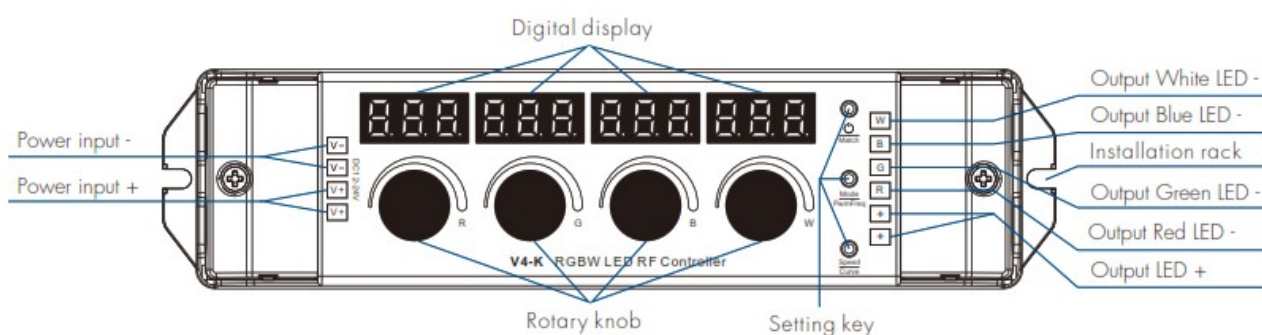
Wiring Diagram
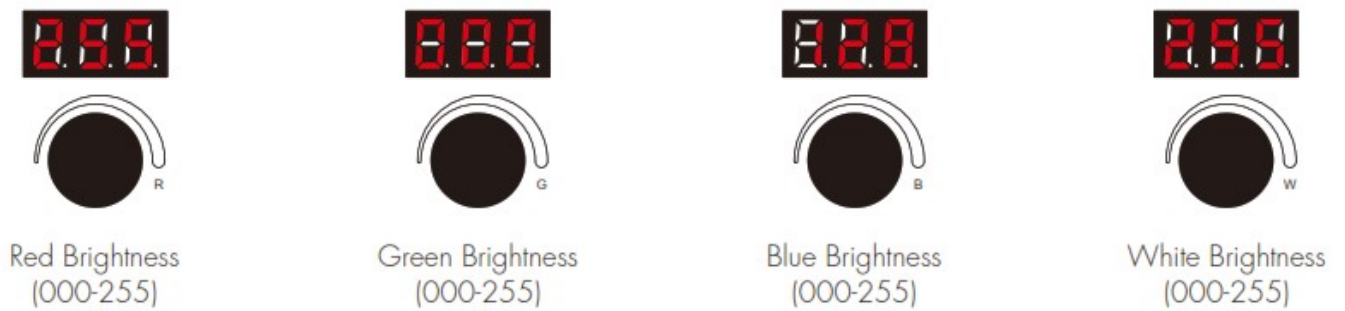
- Work as RGBW LED controller

- Work as RGBW RF remote

RF remote (Optional)

Operation

4 knob dimming

Red Brightness
(000-255)

Green Brightness
(000-255)

Blue Brightness
(000-255)

White Brightness
(000-255)

3 key setting

● ⏻ Match	**Short press:** Turn on or turn off the light. When light is off, display "OFF". **Long press 5s:** Enter RF remote matching state, display "RLS", within 5s, press on/off key or zone key of the RGBW RF remote, display "RLO", match is successful, **Long press 10s:** Until display "RLE", delete all matched RF remote. **Long press 15s:** Restore factory default parameter, display"RES".
● Mode PwmFreq	**Short press:** Switch between 10 dynamic change mode (P01~P10). **Long press 5s:** Prepare for setup output PWM frequence, then short press mode key to switch between 1000Hz("F10"), 2000Hz("F20"), 4000Hz("F40") or 8000Hz("F80"). Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video). Long press Mode key for 2s or timeout 10s, quit output PWM frequence setting.
● Speed Curve	**Short press:** Set mode speed, switch between 1-10 level speed (S-1, S-9, S-F). **Long press 5s:** Prepare for setup output brightness curve, then short press speed key to switch between linear curve("C-L") or logarithmic curve("C-E"). Long press Speed key for 2s or timeout 10s, quit output brightness curve setting.

RGBW dynamic mode list

No.	Name	No.	Name
P01	RGB jump	P06	RGB fade in and out
P02	RGB smooth	P07	Red fade in and out
P03	6 color jump	P08	Green fade in and out
P04	6 color smooth	P09	Blue fade in and out
P05	Yellow cyan purple smooth	P10	White fade in and out

4 Knob Controller Work as RGBW RF remote

This 4 knob controller work as RGBW RF remote can match with one or multiple RGBW LED RF controller.
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 of receiver, immediately press on/off key on the knob controller.
The LED indicator fast flash a few times means match is successful.
Delete:
Press and hold match key of the receiver for 5s to delete all match,
The LED indicator fast flash a few times means all matched RF remotes were deleted.

Use Power Restart
Match:
Switch off the power of the receiver, then switch on power, repeat again.
Immediately short press on/off key 3 times on the knob controller.
The light blinks 3 times means match is successful.

Delete:
Switch off the power of the receiver, then switch on power, repeat again.
Immediately short press on/off key 5 times on the knob controller.
The light blinks 5 times means all matched remotes were deleted.
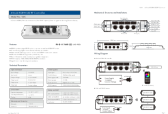
Dimming curve setting

Linear dimming curve

Gamma=1.0

PWM duty(%) vs Brightness(%)

Logarithmic dimming curve

Gamma=1.6

PWM duty(%) vs Brightness(%)
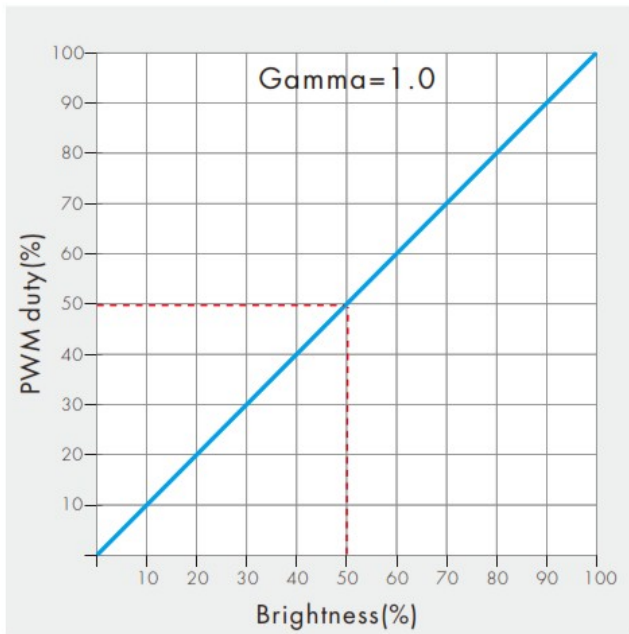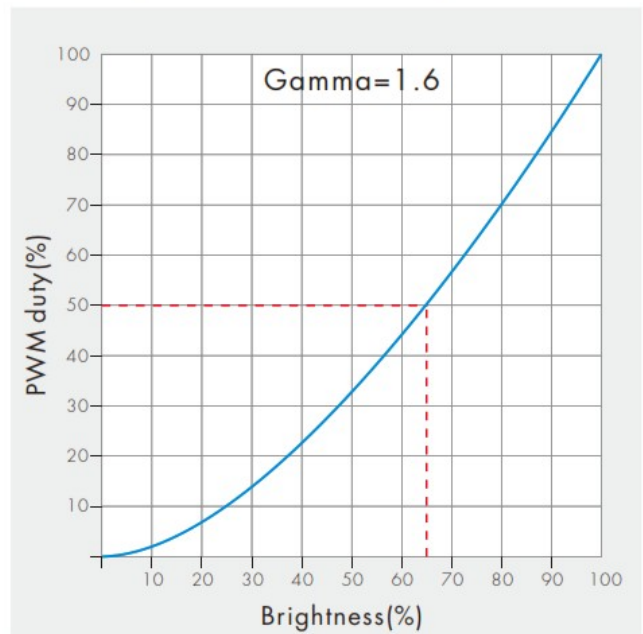
Documents / Resources

	Sage V4-K 4 Knob RGBW LED RF Controller [pdf] User Manual V4-K, 4 Knob RGBW LED RF Controller, V4-K 4 Knob RGBW LED RF Controller, RGBW LED RF Controller, LED RF Controller, RF Controller, Controller