## LCDMSD-V1-L Single Colour LED Controller



## Features

- 0-100\% smooth dimming without flashing
- Compatible with 2.4 G single or multiple zone dimming remotes
- One RF controller accepts up to 10 remote controls
- Auto-transmitting function: Controller can automatically transmit a signal to another controller within 30 m control distance (unobstructed)
- Ability to sync onto multiple controllers
- Ability to connect with an external push switch to achieve on/off and 0-100\% dimming function
- Logarithmic or linear dimming curve selectable
- PWM frequency $250 \mathrm{~Hz}, 500 \mathrm{~Hz}, 2 \mathrm{kHz}$ or 8 kHz selectable
- Over-heat / Over-load / Short circuit protection


## Technical Parameters

| Input and Output |  |
| :---: | :---: |
| Input voltage | 12-48VDC |
| Output voltage | 12-48VDC |
| Output current | $\begin{aligned} & \text { 15A@12/24V } \\ & \text { 10A@36/48V } \end{aligned}$ |
| Output power | 180W@12V 360W@24V 360W@36V 480W@48V |
| Output type | Constant voltage |
| Dimming data |  |
| Input signal | RF $2.4 \mathrm{GHz}+$ Push Dim |
| Control distance | 30 m (Barrier-free space) |
| Dimming gray scale | 4096 (2^12) levels |
| Dimming range | 0-100\% |
| Dimming curve | Logarithmic or linear |
| PWM Frequency | $250 \mathrm{~Hz}, 500 \mathrm{~Hz}, 2 \mathrm{kHz}, 8 \mathrm{kHz}$ |


| Safety and EMC |  |
| :---: | :---: |
| EMC standard (EMC) | EN301 489,EN 62479 |
| Safety standard(LVD) | EN60950 |
| Radio Equipment(RED) | EN300 328 |
| Certification | CE,EMC,LVD, RED |
| Environment |  |
| Operation temperature | Ta: $-30^{\circ} \mathrm{C} \sim+55^{\circ} \mathrm{C}$ |
| Case temperature (Max.) | Tc: $+85^{\circ} \mathrm{C}$ |
| IP rating | IP20 |


| Warranty and Protection |
| :--- |
| Warranty |
| 5 years <br> ProtectionReverse polarity <br> Over-heat <br> Over-load <br> Short circuit |



## Wiring Diagram

## Match with dimming remote



## Connect with push switch

Push Switch


## Match Remote Control

End user can choose between two suitable match/delete ways

## USE THE CONTROLLER'S MATCH KEY

## Match:

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

## Delete:

Press and hold the match key for 5 s to delete all current matches, the LED indicator will flash a few times which means all matched remotes were deleted.

## USE POWER RESTART

## Match:

Switch off the power, then switch on again, immediately short press the on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote. The light will blink 3 times which means the match was successful.

## Delete:

Press and hold the match key for 5s to delete all current matches, the LED indicator will flash a few times which means all matched remotes were deleted.

## Application Notes

1. All the receivers in the same zone.


30 m


Auto-transmitting: One receiver can transmit the signal from the remote to another receiver within 30m, as long as there is a receiver within 30 m , the remote control distance can be limitless.

Auto-synchronization: Multiple receivers within 30m distance can work simultaneously when they are controlled by the same remote. Receiver placement may offer up to 30 m communication distance. Metals and other metal materials will reduce the range. Strong signal sources such as WiFi routers and microwave ovens will affect the range. We recommend for indoor applications that receiver placements should be no further apart than 15 m .
2. Each receiver(one or more) in a different zone, like zone 1, 2, 3 or 4.

Zone $1 \quad$ Zone 2



RF remote

Zone 3


## Push Dim Function

The provided Push-Dim interface allows for a simple dimming method using commercially available nonlatching (momentary) wall switchs.

- Short press:

Turn on or off light.

- Long press (1-6s):

Press and hold to step-less dimming,
With every other long press, the light level goes to the opposite direction.

- Dimming memory:

Light returns to the previous dimming level when switched off and on again, even at power failure.

## - Synchronization:

If more than one controller are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to $100 \%$. This means there is no need for any additional synchrony wire in larger installations. We recommend the number of controllers connected to a push switch does not exceed 25 pieces, The maximum length of the wires from push to controller should be no more than 20 meters.

## PWM Frequency Setting



We can select four PWM frequency: $250 \mathrm{~Hz}, 500 \mathrm{~Hz}, 2 \mathrm{kHz}$ or 8 kHz . Higher PWM frequency, will cause lower output current, higher power noise, which is more suitable for camera rather then video due to flickering.

## Dimming Curve Setting

Linear dimming curve


Logarithmic dimming curve


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