## SKYDANCE

## Single Color LED Controller

## Model No.: V1-H/P

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

## Features

- 4096 levels 0-100\% dimming smoothly without any flash
- Match with RF 2.4 G single zone or multiple zone dimming remote control
- One RF controller accept up to 10 remote control.
- Auto-transmitting function: Controller automatically transmit signal to another
controller with 30 m control distance
- Synchronize on multiple number of controllers.
- Connect with 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.
- Light on/ off fade time 3s selectable.

Fe Ce RoHS emc LVD RED

- Easy to be placed in standard wall junction box behind a push switch


## Technical Parameters

| Input and Output |
| :--- |
| Input voltage $12-48 \mathrm{VDC}$ <br> Output voltage $12-48 \mathrm{VDC}$ <br> Output current $8 \mathrm{A@} 12 / 24 \mathrm{~V}, 4 \mathrm{A@} @ 36 / 48 \mathrm{~V}$ <br> Output power $96 \mathrm{~W} / 192 \mathrm{~W} / 144 \mathrm{~W} / 192 \mathrm{~W}$ <br> $(12 \mathrm{~V} / 24 \mathrm{~V} / 36 \mathrm{~V} / 48 \mathrm{~V} \mid$ <br> Constant voltage  |
| Output type |


| Dimming data |  |
| :--- | :--- |
| Dim |  |
| Input signal | RF $2.4 \mathrm{GHz}+$ Push Dim |
| Control distance | $30 \mathrm{~m}($ Barrierfree space $)$ |
| Dimming gray scale | $4096\left(2^{\wedge 12)}\right.$ 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) | ETSI EN 301 489-1 V2.2.3 <br> ETSI EN 301 489.17 V3.2.4 |
| Safery standard(IVD) | EN 62368-1:2020+A11:2020 |
| Radio Equipment(RED) | ETSI EN 300328 V2.2.2 |
| Cerrification | CE,EMC, IVD, RED |

## Environment

| Operation temperature | $\mathrm{Ta}:=30^{\circ} \mathrm{C} \sim+55^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Case temperature $($ Max.) | $\mathrm{Tc}:+85^{\circ} \mathrm{C}$ |
| $\mathbb{P}$ Prating | $\mathbb{P} 20$ |


| Warranty and Protection |
| :--- |
| Warranty | | 5 years |
| :--- |
| Protection | | Reverse polarity |
| :--- |
| Short circuit |$\quad$|  |
| :--- |

Mechanical Structures and Installations


Typical Wall Junction Box Mounting


## Wiring Diagram

- Match with dimming remote

- Connect with push switch



## Match Remote Control (two match ways)

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, 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.

Press and hold match key for 5 s to delete all match The LED indicator fast flash a few times means all matched remotes were deleted.

## I Use Power Restart

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.

## Application notes

## 1. All the receivers in the same zone



Auto-transmitting: One receiver can transmit the signals from the remote to another receiver within 30 m ,
as long as there is a receiver within 30 m , the remote control distance can be extended.
Auto-synchronization: Multiple receivers within 30 m distance can work synchronously 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 .


RF remote

## Light on/off fade time

Long press match key 5 s, then short press match key 3 times,
the light on/off time will be set to 3 s, the indicator light blink 3 times.
Long press match key 10 s , restore factory default parameter,
the light on/off lime also restore to 0.5 s .

## Push Dim Function

The provided Push-Dim interface allows for a simple dimming method using commercially available non-latching (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 10 s , 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 but more suitable for camera( $N o$ flickers for video).

## Dimming curve setting



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Logarithmic dimming curve


