LDT-PUSH-RF-2CV-8A

Dual-Channel RF & Push-Dim DUO Controller

A two-channel constant-voltage receiver for warm-white/cool-white LED loads, combining compatible RF colour-temperature control with wired push-button dimming.

Model specifications

Input / output voltage	12-48 VDC
Output type	2-channel constant-voltage PWM
Maximum output current	8 A/channel
Maximum output power	2 x (96-384 W) over 12-48 VDC
Lighting type	DUO: warm white + cool white
Control inputs	RF 2.4 GHz + momentary Push-Dim
Dimming	0-100%; 4096 levels; linear
PWM frequency	2 kHz default
RF distance	Up to 30 m in unobstructed space
Paired remotes	Up to 10
Operating temperature	-30 to +55 °C
Maximum case temperature	+85 °C
IP rating	IP20
Body dimensions	175 x 45 x 27 mm
Protection	Overload and short circuit

The following technical-reference pages retain the complete diagrams, dimensions, settings and installation instructions. Select the lighting variant stated on this cover; family diagrams may also illustrate other variants.

RF | DUO

Dual Color LED Controller

- 4096 levels 0-100% dimming smoothly without any flash.
- Match with all RF 2.4G single zone or multiple zone dual color or remote control.
- One RF controller accept up to 10 remote control.
- Auto-transmitting function: Controller automatically transmit signal to another controller with 30m control distance.
- Synchronize on multiple number of controllers.
- Fade in and out effect selectable.
- Can be set 3 levels color temperature (WW, NW and CW) selectable by continuous power off and on operation.
- Connect with external push switch to achieve on/off and 0-100% dimming
- Over-load / Short circuit protection, recover automatically.

CE RoHS emc RED



2 Channel / Step-less dimming / Wireless remote control / Auto-transmitting / Synchronize/ Push Dim / Multiple protection

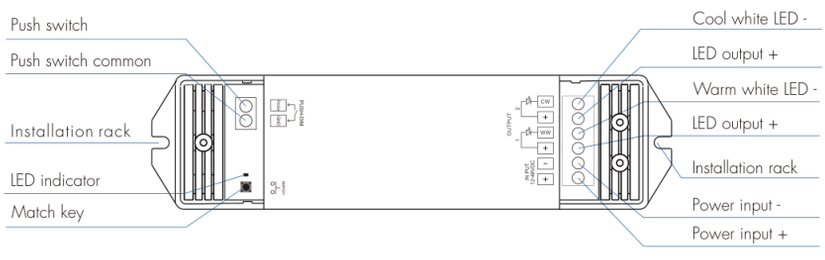
Technical Parameters

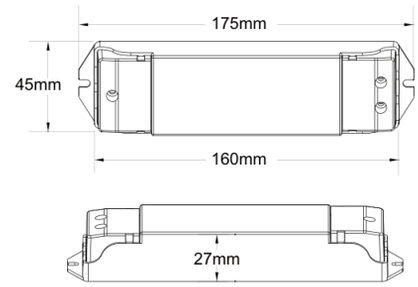
Input and Output	
Input voltage	12-48VDC
Input current	16.5A
Output voltage	2x(12-48)VDC
Output current	2CH,8A/CH
Output power	2x(96-384)W
Output type	Constant voltage
Warranty	
Warranty	5 years

Dimming data	
Input signal	RF 2.4GHz + Push Dim
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^12) levels
Dimming range	0 -100%
Dimming curve	Linear
PWM frequency	2KHz (default)
Package	
Size	L178 x W50 x H38mm
Gross weight	0.126kg

Safety and EMC	
EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard	EN 61348-1:2015+A1:2021 EN 61348-2-13:2014+A1:2017
Radio Equipment (RED)	ETSI EN 300 328 V2.2.2
Certification	CE, EMC, RED
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

Mechanical Structures and Installations





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) of the remote.
The LED indicator fast flash a few times means match is successful.

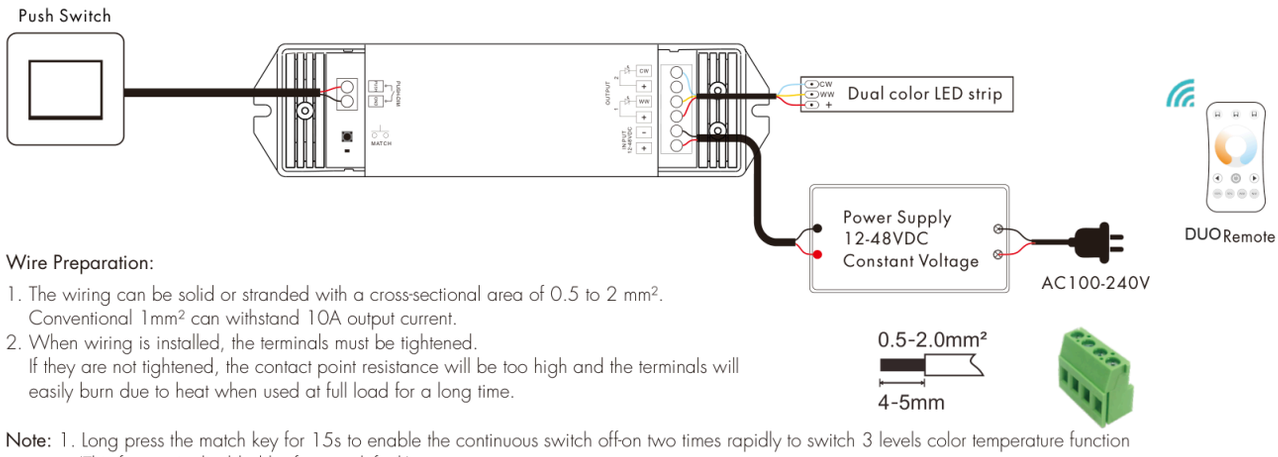
Delete:
Press and hold match key for 5s to delete all match,
The LED indicator fast flash a few times
means all matched remotes were deleted.

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.

Wiring Diagram



Wire Preparation:

1. The wiring can be solid or stranded with a cross-sectional area of 0.5 to 2 mm².
   Conventional 1mm² can withstand 10A output current.
2. When wiring is installed, the terminals must be tightened.
   If they are not tightened, the contact point resistance will be too high and the terminals will easily burn due to heat when used at full load for a long time.

Note: 1. Long press the match key for 15s to enable the continuous switch off-on two times rapidly to switch 3 levels color temperature function (This feature is disabled by factory default).
Long press the match key for 10s to restore the factory setting.
2. The output power of a constant voltage power supply should be at least 1.2 times that of the output load (light strip), otherwise the full power output of the load can easily cause automatic flickering or shaking of the light.

Light on/off fade time

Long press match key 5s, then short press match key 3 times, the lighting effect will be set to the fade in and fade out in 3s, the indicator light of LED controller blinks 3 times.

Long press match key 10s, restore factory default parameter, the light on/off time restores to 0.5s.

Push Dim

Click	ON/OFF
Long press(>1s) from OFF	Color temperature UP/DOWN (turn off and turn on to return dimming)
Long press(>1s) from ON	Dimming UP/DOWN

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

Dual color control

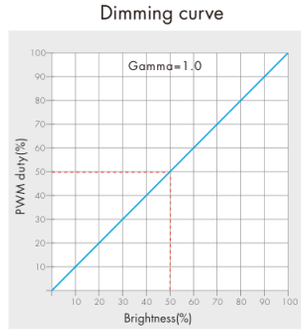
WW=Warm white LED CW=Cool white LED Each channel can supply up to 192W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	WW=0W,CW=192W	WW=96W,CW=96W	WW=192W,CW=0W

Linear dual color tuning



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 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 products are not allowed to be close to or covered by metal objects, with an interval of ≥ 20cm to avoid signal attenuation and shorten the remote 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.