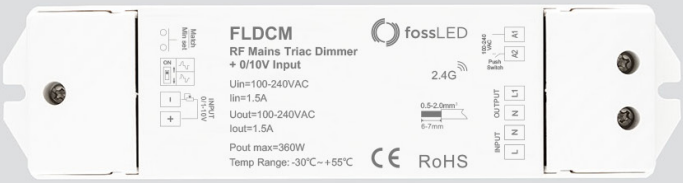
RF Mains Dim Decoder

240V

FLDCM



RF Mains Dimmable decoder with 1 channel output.

To dim and turn on/off single colour dimmable LED downlights , LED spotlights, traditional incandescent and halogen lamps.

Compatibility with RF 2.4G single zone or multiple zone dimming controllers, control distance up to 30m (Barrier-free space). Please allow for 12m within areas restricted by obstacles.

Compatible with active or passive 0-10V, 1-10V dimmer.

256 levels 0-100% smooth dimming.

Leading edge dimming or trailing edge dimming set by dip switch.

Min brightness can be set.

Soft turn-on and turn-off.

Over-heat protection with automatic recovery.

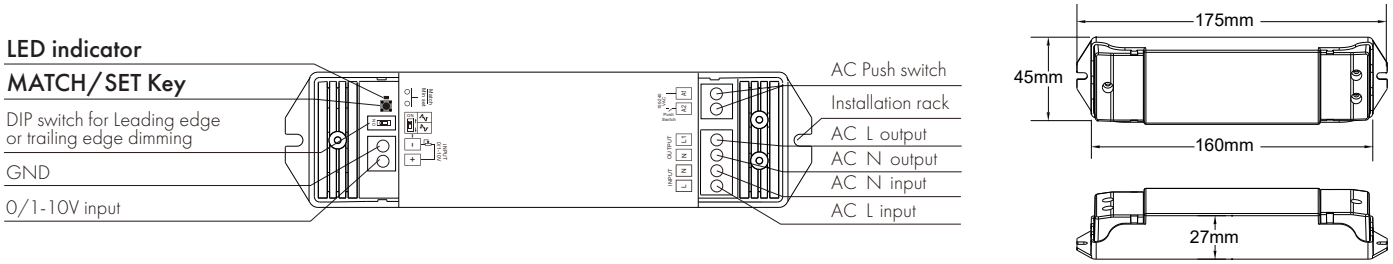
Input Voltage: 100-240VAC.

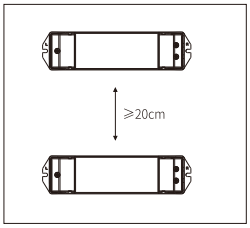
Output: 1.5A (150-360W).

IP20 rating, dust resistant only, no resistance to moisture or water.

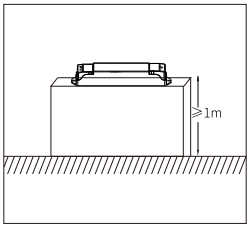
This product must be installed by a qualified electrician in accordance with instructions provided and in compliance with recognized electrical and safety regulations relevant to the country it is being installed.

INSTALLATION DIMENSIONS:

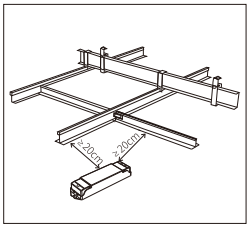




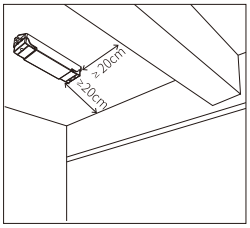
Do not stack products. The distance between products should be ≥20cm, to avoid poor heat dissipation affect lifespan.



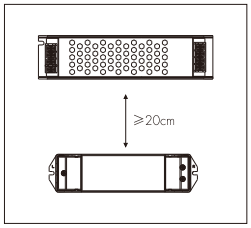
Do not put the product on the ground. The installation height should be ≥1m, to avoid shortening the remote control distance due to weak reception signal.



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



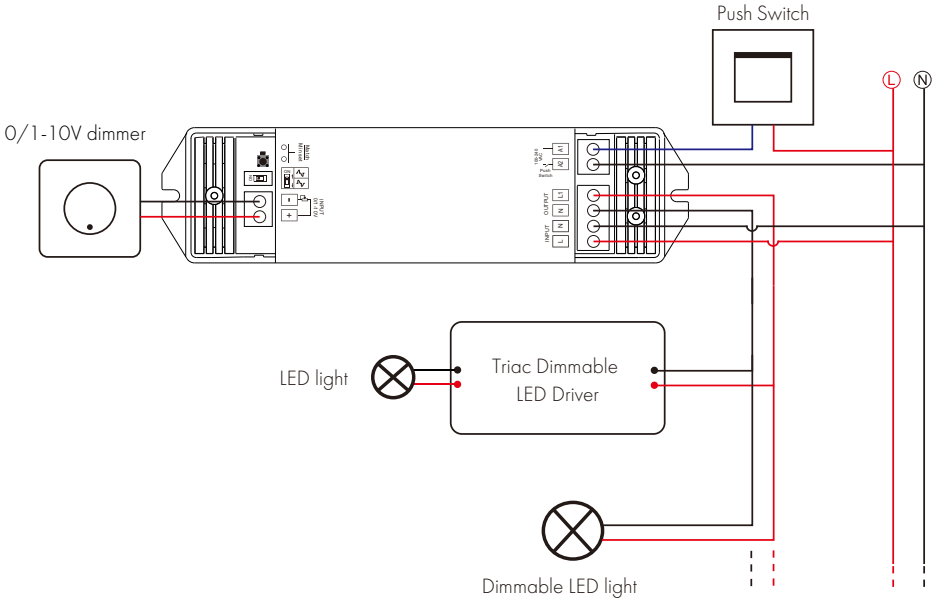
Avoid installation at the corner of the wall/ beam, with an interval of ≥20cm to avoid signal interference.



Products and switch power don't stack. The distance between the two should be ≥20cm, to avoid the radiation interference of the switching power supply.

WIRING DIAGRAM:

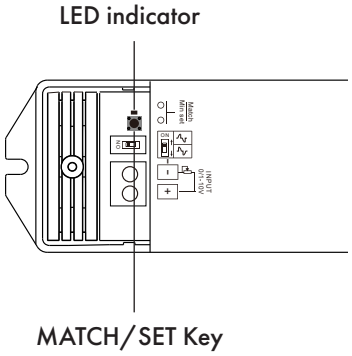
Please ensure that all wire connections and polarities are correctly and securely made before applying power. Failure to do so may result in damage to the dimmer.



When calculating the maximum number of load lamps or drivers, use the input power or input current parameters of each individual lamp or driver, not the output power parameters. Additionally, the dimmer's maximum surge current is 65A, and the total surge current of multiple dimmable LED drivers should not exceed twice this value (130A). Exceeding this limit may cause the product to become overloaded and damaged.

MATCHING THE DECODER:

There are two options for matching and deleting the receiver to a suitable controller, for example FLCT1S.



Example receiver: FLCT1S.

Use the Decoders Match key

Match: Short press the **MATCH/SET Key**, immediately press the **ON/OFF Key** (single zone remote) or **ZONE Key** (multiple zone remote) on the controller.

Delete: Press and hold the **MATCH/SET Key** for 5s to delete all matches. The **LED indicator** will fast flash a few times meaning all matched controllers are deleted.

Use Power Restart

Match: Switch off the power to the decoder, then switch the power on, repeat this again. Immediately short press the **ON/OFF Key** (single zone remote) or **ZONE Key** (multiple zone remote) **THREE** times on the controller. The light will flash **THREE** times, which means the match is successful.

Delete: Switch off the power to the decoder, then switch the power on, repeat this again. Immediately short press the **ON/OFF Key** (single zone remote) or **ZONE Key** (multiple zone remote) **FIVE** times on the controller. The light will flash **FIVE** times meaning all matched controllers are deleted.

TECHNICAL:

Input and Output	
Input voltage	AC100-240V
Output voltage	AC100-240V
Output current	Max 1.5A
Output power	150-360W

Package	
Size	L178 x W50 x H38mm
Gross weight	0.141kg

Dimming data	
Input signal	RF + 0/1-10V + AC Push
RF Control distance	30m(Barrier-free space)
Dimming level	256 levels
Dimming range	0 -100%

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

Warranty and Protection	
Warranty	5 years

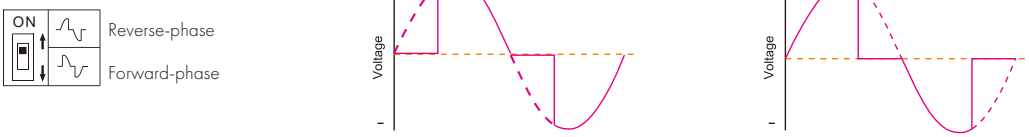
Safety and EMC	
EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard (LVD)	EN 62368-1:2020+A11:2020
Certification	CE,EMC,RED

COMPATIBLE LOAD TYPES

Load Type	Maximum Load	Remarks
Dimmable LED Lamps	240W @ 220V 120W @ 110V	Due to the wide variety of LED lamp designs, the maximum number of LED lamps that can be connected to a dimmer also depends on the power factor outcome when they are in use.
Triac Dimmable LED Driver	240W @ 220V 120W @ 110V	Maximum load of all Dimmable drivers connected should not exceed more than 240W. The in-rush current should also not exceed 2 x 65A.
Incandescent Lighting, HV Halogen Lamps	400W @ 220V 200W @ 110V	

LEADING EDGE OR TRAILING EDGE DIMMING SETTING

Select leading edge (forward-phase) dimmer or trailing edge (reverse-phase) dimmer according to dimmable LED light or driver.



Caution: before power on, you must confirm the selection of dip switch.

MIN BRIGHTNESS SETTING

Press and hold the **MATCH/SET Key** for 2 seconds. The light will blink twice, indicating that it is ready for minimum brightness adjustment. Then, press the **MATCH/SET Key** 1 to 6 times to select from six minimum brightness levels: 5%, 10%, 15%, 20%, 25%, or 30%. The light will immediately display the selected minimum brightness. To exit the minimum brightness setting, either press and hold the **MATCH/SET Key** for 2 seconds again or wait 8 seconds, after which the light will automatically return to 100% brightness.

LIGHT ON/OFF FADE TIME

Press and hold the **MATCH/SET Key** for 5 seconds, then press it 3 times. This will set the light on/off time to 3 seconds, and the indicator light will blink 3 times to confirm the change. To restore the factory default settings, press and hold the **MATCH/SET Key** for 10 seconds. This will also reset the light on/off time to 0.5 seconds.

0/1-10V DIMMING

- The 0/1-10V input can be operated using commercially available simple rotary wall switches designed for 0/1-10V dimming systems or via dedicated central dimming controllers.
- Compliant with 0-10V, 1-10V, 10V PWM, RX(4 in 1).
- We recommend that no more than 5 AC triac dimmers be connected to a 0/1-10V dimmer. Additionally, the maximum wire length between the dimmer and the AC triac dimmers should not exceed 15 meters.
- If the AC triac dimmer is used with an RF remote or Push-Dim interface before using the 0/1-10V interface, the 0/1-10V signal should change by more than 10% in order to switch back to 0/1-10V control.

AC PUSH DIM

The AC Push-Dim interface enables an easy dimming method with the use of standard non-latching (momentary) wall switches available on the market.

- 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.
- Synchronisation:

The AC Push-Dim interface enables an easy dimming method with the use of standard non-latching (momentary) wall switches available on the market.

If multiple AC triac dimmers are connected to the same push switch, holding the switch for more than 10 seconds synchronizes the system, causing all lights in the group to dim up to 100%. This setup eliminates the need for additional synchronization wires in larger installations.

wIt is recommended that the number of AC triac dimmers connected to a single push switch does not exceed 25 units. Additionally, the maximum length of the wires from the push switch to any AC triac dimmer should not exceed 20 meters.