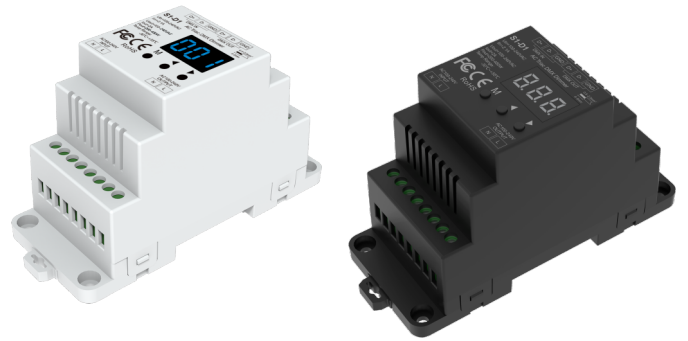# S1-D1

AC Triac DMX Dimmer

- AC phase-cut mosfet dimmer with DMX512 function, one channel output.
- Comply with the DMX512 standard protocols.
- Digital numeric display, set DMX decode start address by bottons.
- RDM function can realize intercommunication between DMX master and decoder.
- Reverse-phase dimming or forward-phase dimming selectable.
- Minimum brightness set from 1% to 40%.
- Stand-alone dynamic mode and dimmer mode selectable,
  which be controlled by buttons with built-in programs, instead of DMX signal.
- To dim and switch single color dimmable LED lamps,
  traditional incandescent and halogen lights.
- Over-heat protection, recover automatically.
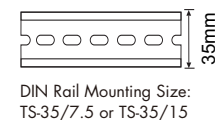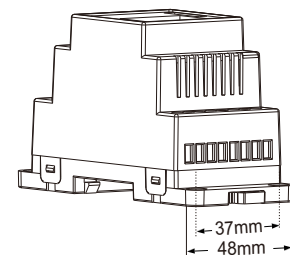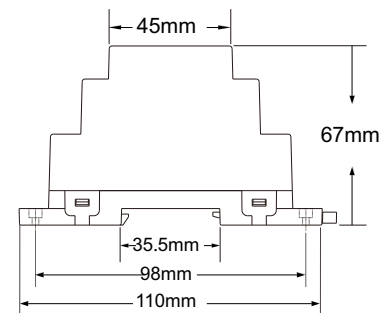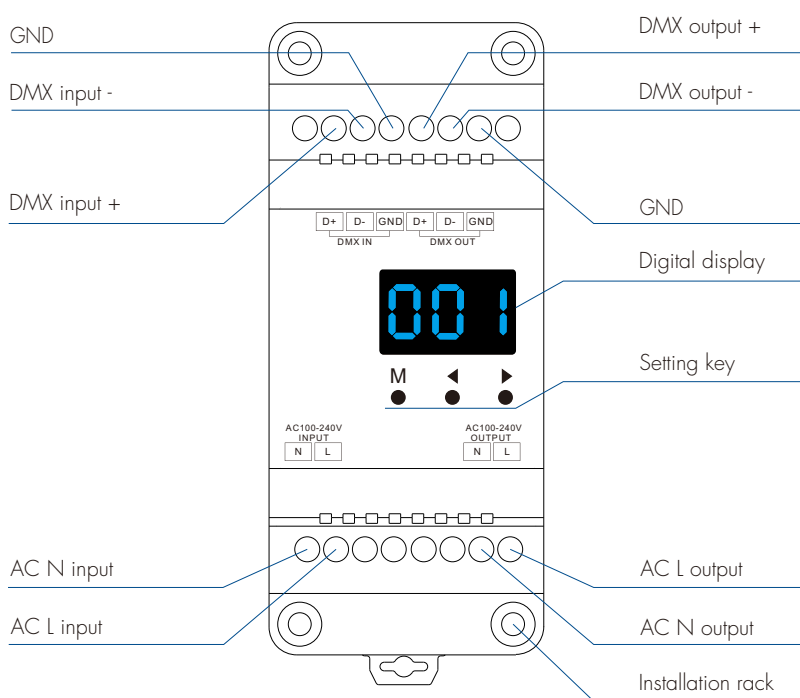- Available in white or black.

FC CE RoHS emc LVD

Technical Parameters

Input and Output

Input voltage	100-240VAC
Output voltage	100-240VAC
Output current	1CH,2A
Output power	200-480W

Warranty and protection

Warranty	5 years
Protection	Over-heat

Dimming data

Input signal	DMX512
Dimming level	256 levels
Dimming range	0-100%

Environment

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

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,LVD

Package

Size	L120 x W78 x H55mm
Gross weight	0.160kg

Mechanical Structures and Installations

DIN Rail Mounting Size:
TS-35/7.5 or TS-35/15

Compatible Load Types

Load Type	Maximum Load	Remarks
Dimmable LED lamps	300W @ 220V 150W @ 110V	Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power factor result when connected to dimmer.
Triac Dimmable LED drivers	300W @ 220V 150W @ 110V	Maximum permitted number of drivers is 300W divided by driver nameplate power rating, and make sure the surge current is no more than 2 times 65A.
Incandescent lighting, HV Halogen lamps	500W @ 220V 250W @ 110V	

Wiring Diagram

⚠️ **Caution:** Please carefully ensure all wire connections and polarities are correct and secure before applying power, otherwise this controller will be damaged.

DMX signal

DMX Master
GND DMX- DMX+

D+ D- GND D+ D- GND
DMX IN   DMX OUT

888

M ◀ ▶

AC100-240V INPUT   N L
AC100-240V OUTPUT   N L

AC100-240V Input

Dimmable LED light

D+ D- GND D+ D- GND
DMX IN   DMX OUT

888

M ◀ ▶

AC100-240V INPUT   N L
AC100-240V OUTPUT   N L

AC100-240V Input

Dimmable LED Driver

LED light
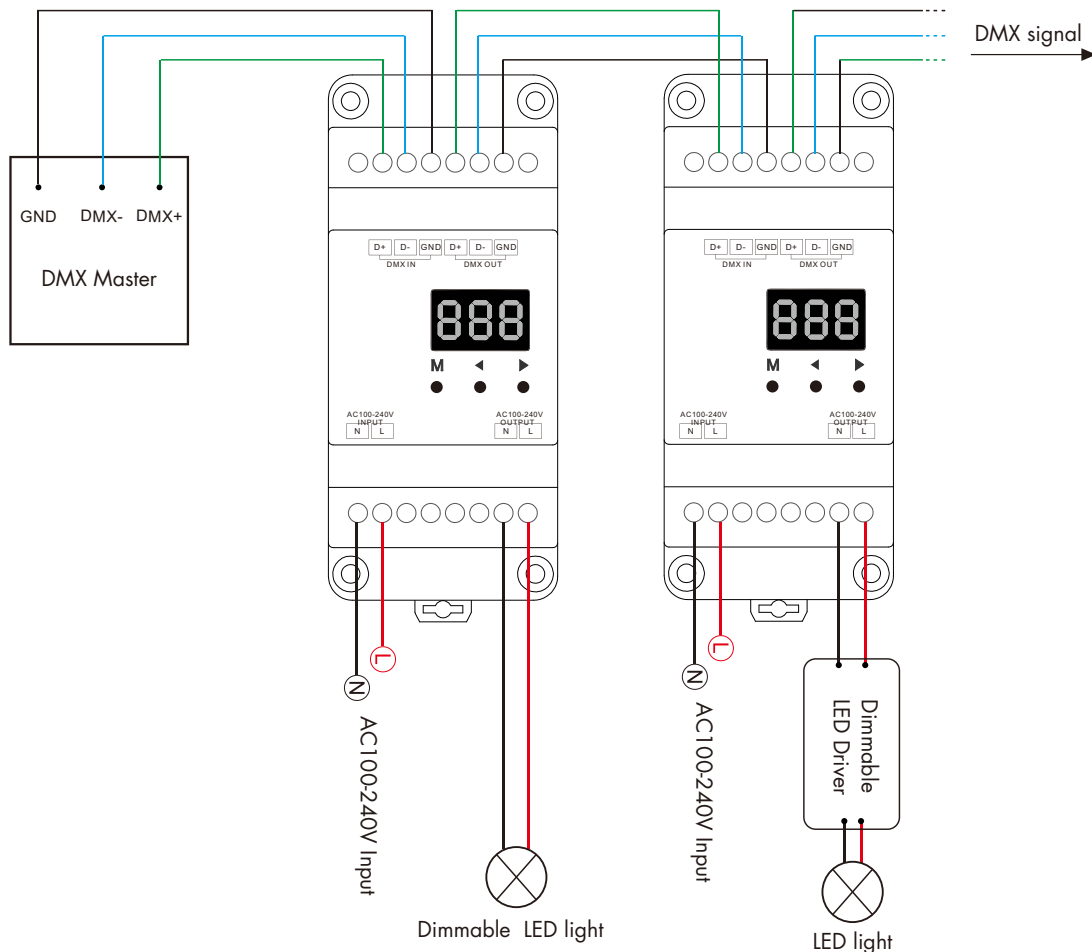
Note:
When calculating the maximum number of load lamps or drivers, the input power or input current parameters of a single lamp or driver must be used, the output power parameters can not be used.

In addition, the maximum surge current of the dimmer is 65A, the sum of surge current of multiple dimmable LED drivers should not exceed 2 times. otherwise, the product will be overloaded and damaged.

Operation

System parameter setting

- Long press M and ◀ key for 2s, prepare for setup system parameter: control method, minimum brightness curve, default output level, automatic blank screen. short press M key to switch four item.
- Control method: short press ◀ or ▶ key to switch forward-phase("C-F") or reverse-phase("C-R").

Forward-phase control dimmer

Voltage

Reverse-phase control dimmer

Voltage
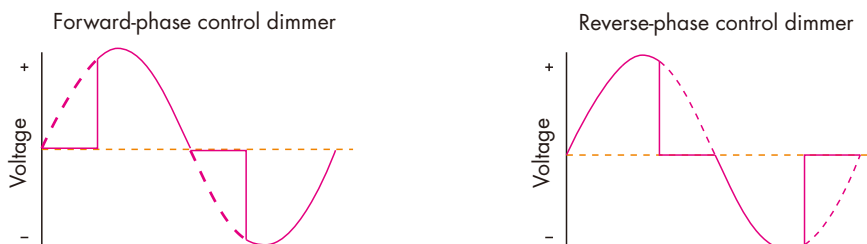
- Minimum brightness: short press ◀ or ▶ key to set minimum brightness, from 1% to 40%("b01" to"b40"). You need set suitable minimum brightness to avoid flick.
- Default output level: press ◀ or ▶ key to change default 0-100% level ("d00" to "dFF") when no DMX input signal.
- Automatic blank screen: short press ◀ or ▶ key to switch enable("bon") or disable("boF") automatic blank screen.
- Long press M key for 2s or timeout 10s, quit system parameter setting.

DMX mode

- Short press M key, when display 001~512, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode start address(001~512), long press for fast adjustment.
- If there is a DMX signal input, will enter DMX mode automatically.
- In DMX mode, if there is no DMX signal input, the digital display keeps blinking.
- DMX Dimming: Each S1-D1 DMX decoder occupy 1 DMX address when connecting the DMX console.

DMX mode
(001~512)

Stand-alone dimmer mode

- Short press M key, when display L-1~L-8, enter stand-alone dimmer mode.
- Press ◀ or ▶ key to change dimmer mode number(L-1~L-8).
- Each dimmer mode can adjust brightness independently.
  Long press M key for 2s, prepare for setup brightness.
  Press ◀ or ▶ key to setup brightness value(100-1FF).
  Long press M key for 2s, or timeout 10s, quit setting.
- Enter stand-alone dimmer mode only when DMX signal is disconnected or lost.

Stand-alone dimmer mode
(L-1~L-8)

Stand-alone dynamic mode

- Short press M key, when display P-1~P-2, enter stand-alone dynamic mode.
- Press ◀ or ▶ key to change dynamic mode number(P-1~P-2).

- Each mode can adjust speed and brightness.
  Long press M key for 2s, prepare for setup mode speed, brightness.
  Short press M key to switch two item.
  Press ◀ or ▶ key to setup value of each item.
  Mode speed: 1-10 level speed(S-1, S-9, S-F).
  Mode brightness: 1-10 level brightness(b-1, b-9, b-F).
  Long press M key for 2s, or timeout 10s, quit setting.
- Enter stand-alone dynamic mode only when DMX signal is disconnected or lost.

Stand-alone dynamic mode
(P-1~P-2)

Speed
(8 level)
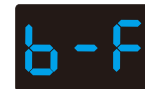
Brightness
(10 level,100%)

Dynamic mode list

No.	Name
P-1	0%,50%,100% light change in sequence
P-2	light fadein and fadeout

Restore factory default parameter

- Long press ◀ and ▶ key for 2s, restore factory default parameter, display"RES".
- Factory default parameter: DMX decode mode, DMX decode start address is 1, rerverse-phase control, 10% minimum brightness, dimmer mode number is 1, dynamic mode number is 1, output 100% level when no DMX input, disable automatic blank screen.