AC Triac RF + Push Dimmer

Model No.: S1-B

RF dimming/Leading edge or trailing edge/Min brightness settable/Push Dim/Wall junction box mounting

Features

● RF + Push AC phase-cut dimmer, 1 channel output.
● To dim and switch single color dimmable LED lamps, traditional incandescent and halogen lights.
● 256 levels 0-100% dimming smoothly without any flash.
● Leading edge dimming or trailing edge dimming set by dip switch.
● Min brightness can be set by key.
● Light on/off fade time 3s selectable.
● Compatibility with RF 2.4G single zone or multiple zone dimming remote control.
● Connect with external push switch to achieve on/off and 0-100% dimming function.
● Easy to be placed in standard wall junction box behind a push switch.
● Over-heat / Over-load protection, recover automatically.

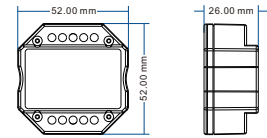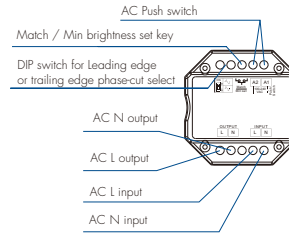CE RoHS emc LVD

Technical Parameters

Input and Output

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

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
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,LVD,RED

Warranty

Warranty	5 years

Dimming data

Input signal	RF 2.4GHz + Push Dim
RF Control distance	30m(Barrier-free space)
Dimming level	256 levels
Dimming range	0-100%

Environment

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

Weight

Weight	Net weight	Gross weight
Weight unit(g)	48g	61g

Compatible Load Types

Load Type	Maximum Load	Remarks
Dimmable LED lamps	200W @ 220V 100W @ 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	200W @ 220V 100W @ 110V	Maximum permitted number of drivers is 200W divided by driver nameplate power rating, and make sure the surge current is no more than 2 times 65A.
Incandescent lighting, HV Halogen lamps	400W @ 220V 200W @ 110V	

Mechanical Structures and Installations

- AC Push switch
- Match / Min brightness set key
- DIP switch for Leading edge or trailing edge phase-cut select
- AC N output
- AC L output
- AC L input
- AC N input

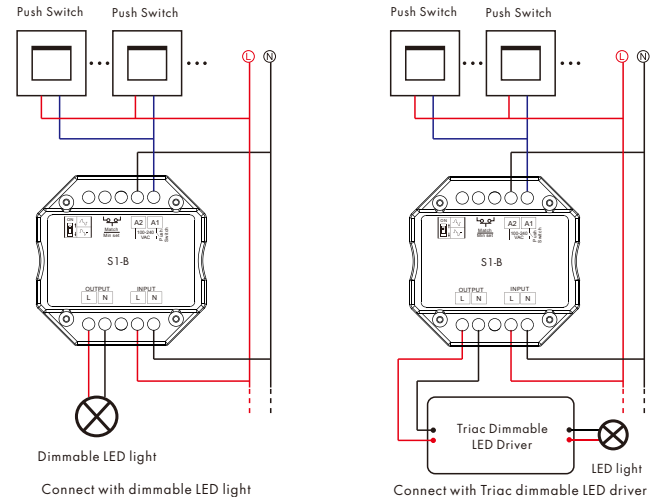52.00 mm   26.00 mm   52.00 mm

Typical Wall Junction Box Mounting
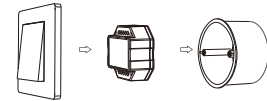
Wiring diagram

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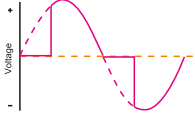

Push Switch   Push Switch

S1-B

Dimmable LED light

Connect with dimmable LED light

Push Switch   Push Switch

S1-B

Triac Dimmable LED Driver

LED light

Connect with Triac dimmable LED driver

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.
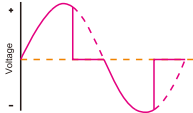
Leading edge or trailing edge dimming setting

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

ON	Reverse-phase
	Forward-phase

Forward-phase control dimmer(TRIAC)   Reverse-phase control dimmer

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

Min brightness setting

Long press Min set key for 2s, the light blink 2 times, ready for min brightness set,
then short press Min set key 1-6 times, to get 6 min brightness: 5%, 10%, 15%, 20%, 25% or 30%,
the light will output the current min brightness immediately,
Long press Min set key for 2s or wait 8s, quit min brightness set, the light will output 100% brightness automatically.

Light on/off fade time

Long press match key 5s, then short press match key 3 times,
the light on/off time will be set to 3s, the indicator light blink 3 times.

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

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.

Delete:
Press and hold match key for 5s to delete all match,
The light blinks 5 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.

Application notes

1. All the receivers in the same zone.

RF remote   30m   30m   30m   ...
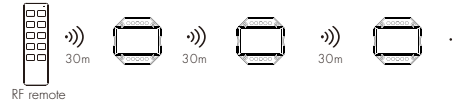
Auto-transmitting: One receiver can transmit the signals from the remote to another receiver within 30m, as long as there is a receiver within 30m, the remote control distance can be extended.
Auto-synchronization: Multiple receivers within 30m distance can work synchronously when they are controlled by the same remote.
Receiver placement may offer up to 30m 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 than15m.

2. Each receiver(one or more) in a different zone, like zone 1, 2, 3 or 4.

Zone 1   Zone 2   30m   30m   Zone 3   Zone 4

RF remote
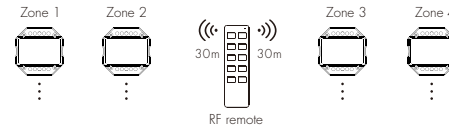
Push Dim Function

● 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.

Malfunctions analysis & troubleshooting

Malfunctions	Causes	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
No response from the remote	1. The battery has no power. 2. Beyond controllable distance. 3. The controller did not match the remote.	1. Replace battery. 2. Reduce remote distance. 3. Re-match the remote.