

LEDsmart^{+™} Push Button Switch

For LED lighting with built in multi-way control

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Range

MMSW / PB



Overview

Designed in Australia to provide optimised switching of LED based lamps and drivers, this high quality, two-wire electronic switch mechanism can be connected in parallel to other LEDsmart+devices to provide a simple solution to multi-way control.

As part of the LEDsmart+ range, this electronic switch enables all LEDsmart+ dimmers, switches and timers to be combined onto the same wall plate, providing the user with a consistent look and feel.

Features

Suitable for one-way, two-way, three-way and multi-way switching

MultiMate™ technology allows multi-way switching with no extra wires

Incorporates filtering to reduce load brightness variation under conditions of line voltage ripple signal injection

Fully programmable

Quiet, soft press button - no harsh click

White LED, illuminated bezel

Optional soft start switch on

Flush and rocker style button options

Simple 3-step programming





Specifications

Compatible Load Types				
Load Symbol	Load Type	Maximum Load	Notes	
- ≱-	LED Lamps	400W	Maximum permitted number of drivers is 400W divided by driver nameplate power rating. Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power-factor result when connected to switch.	
□ //≥	Electronic Transformers	400W		
	Standard Iron-Core Transformers	250W	Due to variety of transformer designs, maximum LV lighting load is also dependent on transformer efficiency.	
	Toroidal Iron-Core Transformers	300W		
·Ö-	Incandescent	350W		
=	CFLs	400W	Due to variety of CFL designs, maximum number is make/model dependant.	

Multi-gang de-rating

In applications where multiple devices are installed in a multi-gang plate, a de-rating factor is applied to the maximum load as follows

Number of devices per plate	De-rating factor	
1	No de-rating	
2	0.85	
3	0.70	
4	0.55	
5	0.40	
6	0.25	

De-rating example

Two switches installed in a wall plate. The maximum LED load which can be connected to each switch = 400W x 0.85 = 340W per switch

Incompatible Load types

Ceiling Sweep Fans and Exhaust fans

Electrical Specifications		
Nominal Line Voltage Amplitude Range	220-240Vac	
Line Voltage Frequency	50Hz Nominal (47-53Hz)	
Rated Load	Refer Compatible Loads	
Minimum Load	1W	
Maximum cable distance from any LEDsmart+ device to the parallel junction point	50m (for example, two LEDsmart+ devices can be separated by up to 100m provided that the maximum distance from the furthest device to the parallel junction point is no more than 50m).	

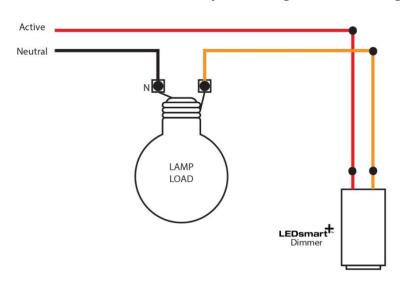




Wiring for one-way dimming and switching

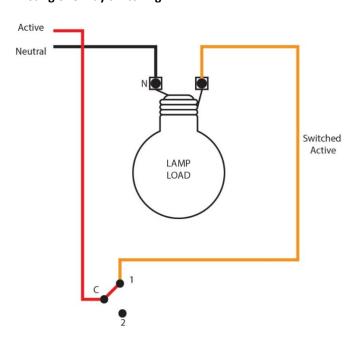
The dimmer has a built in tap on / tap off switch. Therefore, to provide both dimming and on/off control, no separate switch is required.

New Installation – one-way dimming and switching

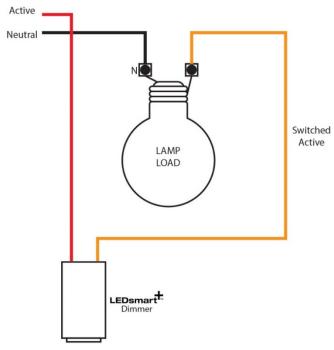


Replacing existing one-way switch with one-way switching/dimming

Existing one-way switching



Replacement one way dimming/switching



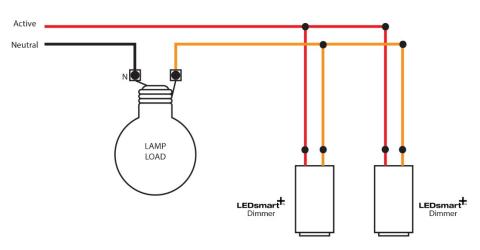




Wiring for two-way dimming and switching

To achieve two-way dimming and switching using LEDsmart⁺ dimmers, the two dimmers are connected in parallel. Note that the dimmers have an integrated switch, therefore no separate switches or additional strappers are required for two-way on/off control.

New Installation – two-way dimming and switching

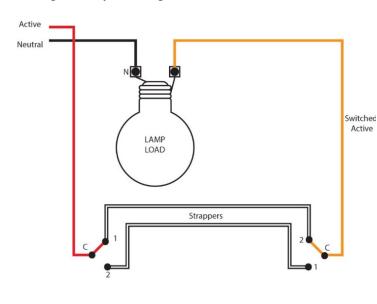


Two-way dimming and switching using LEDsmart⁺ dimmers. Note the two-wire dimmers are simply wired in parallel.

Replacing existing two-way switching with two-way dimming/switching

When replacing existing two-way switching with two-way dimming/switching using LEDsmart⁺, the existing two-way 'strapper' wires can be re-used. No new wiring is required. See the wiring diagrams below.

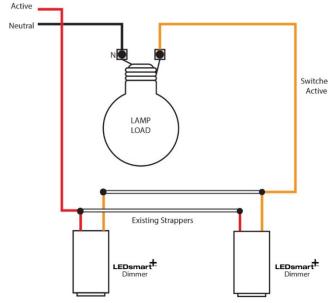
Existing two-way switching



Traditional two-way switching using standard rocker switch mechanisms and strappers between the switches.

Subject to change without notice

Replacement two-way dimming/switching



Rocker switches replaced with LEDsmart+ dimmers using the existing strapper wires. No new wiring required.



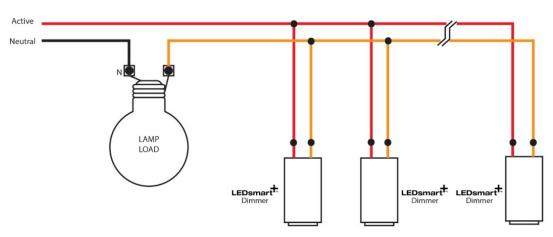


Wiring for multi-way (three-way or more) dimming and switching

To achieve multi-way dimming and switching using LEDsmart⁺ dimmers, the required number of dimmers can be connected in parallel. Note that each LEDsmart⁺ dimmer has an integrated switch, therefore no separate switches or additional strappers are required to provide multi-way dimming and on/off control.

The diagram below shows the required wiring for three-way dimming and switching using LEDsmart⁺ dimmers. If more than three-way control is required, further LEDsmart⁺ devices are simply wired in parallel.

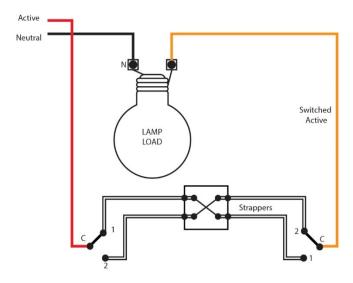
New Installation – multi-way (three-way or more) dimming/switching



Three-way dimming and switching using **LEDsmart**⁺ dimmers. Note that each two-wire **LEDsmart**⁺ dimmer is simply wired in parallel.

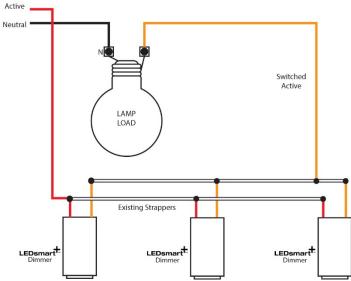
Replacing existing multi-way switching with multi-way dimming and switching

Existing three-way switching



Traditional three-way switching using two rocker switches and one intermediate switch, with strappers between the switches.

Replacement three-way dimming/switching



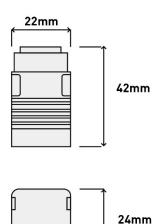
Rocker switches and intermediate switch replaced with LEDsmart⁺ dimmers. The existing strappers are used to connect the dimmers in parallel. No new wiring is required.





Dimensions

22mm



Approvals & Compliance







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Disclaimer:

- 1.Information provided regarding Compatible and Incompatible Load Types is a guide only.
- 2.Additional device(s) may be required to deal with certain site issues due to unknown factors such as supply impedance, mains ripple and type of load. Please contact Pierlite for more information.
- 3. Pierlite will not be held responsible for any expenses associated with any additional device(s) required to fix unknown site conditions such as above.