

AL-WS-DR1

LOW VOLTAGE WALL SWITCH



Wall Switch with LED Driver

The AL-WS-DR1 low voltage light switch directly drives up to 30 W of LED fixtures and bulbs using low-voltage DC instead of 120 V AC. This decorator-style switch fits into any home and meets NEC article 411 for low voltage lighting. It has a standard rocker switch with a brightness slider, which controls 5-100% smooth dimming when connected to ATX LED's high-quality LED fixtures.

For smart home automation, the AL-WS-DR1 can be replaced with the AL-WS-DR2 or AL-WS-DR2W, which supports fixed color or tunable white LED fixtures and connects to common smart home controls, without any wiring changes. The ATX LED Smart Hub allows connection to smart home voice control.

Key Specifications

Electrical/Operational	
Input voltage range	24 V to 52 V DC
Minimum output voltage	6 V
Maximum output voltage	Input minus 4 V
Standby power consumption	10 mW
Conversion efficiency	Over 95%
Protection	Reverse protection and static protection
Operating temperature	0°C to 50°C
Standard Connections	
Power source and load	Spring-loaded connectors (2 pair) for AWG 16-20
LED constant current output	Spring-loaded connectors; connect five LEDs with 660 mA each
Max LEDs	10 fixed color; 5 tunable white

Features

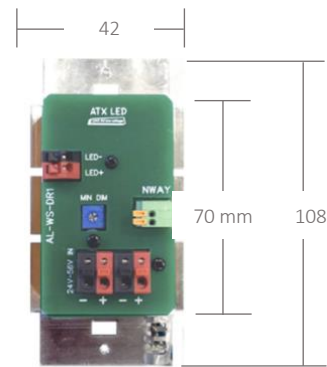
- Standard decorator-style appearance
- Low voltage operation per NEC Article 411
- Integrated slider controls 5-100% smooth dimming
- Easy installation using AWG 16 or 18
- 3-way compatible using simple electrical switches

Certifications

- NEC article 411
- UL Listed - E500649
- Meets FCC RF standards for minimal interference

Dimensions

External size (metal)	108 mm x 42 mm W x 34 mm D
External size (switch)	70 mm x 42 mm W x 34 mm D



Sample Recommended LED Loads

Watts	Type	Model	Size	LED	Max Count	Total Power	Note
6	Flat ceiling	P023R6	4"	660 mA	5	30	5 in series
6	Recessed	DL-120	4"	660 mA	5	30	5 in series
6	Gimbal spot	MS31008	3"	660 mA	5	30	5 in series
6	E26 bulb	ATX-A60	N/A	660 mA	5	30	5 in series
6	E12 bulb	ATX-C35	N/A	660 mA	5	30	5 in series
6	E26 bulb	E26-48V6W	N/A	120 mA	6	36	6 in parallel

Model Quick Reference

Ordering SKU	LED Channels	Dimming Driver	0-10 V Control	Fan	Vacancy/Occupancy	3-Way ¹	Smart ²	WiFi
AL-WS-BATH	1	X		X		X		
AL-WS-DR1	1	X						
AL-WS-DR1-PIRC	1	X			X	X		
AL-WS-DR2C	2	X		X		X		
AL-WS-DR1-PIR	1	X			X		X	
AL-WS-010V	1	X	X			X	X	
AL-WS-DR2	2	X		X		X	X	
AL-WS-DR2W	2	X		X		X		X

Notes:

1 - Compatible with AL-WS-M Momentary Switch for 3-way

2 - IEC 62386 compatible

Part Numbering

AL	-	WS	-	DR1
ATX LED		Description		Variety

