

AL-WS-DR2C

LOW VOLTAGE WALL SWITCH



Wall Switch Dimmer/Driver for LEDs and Fan

The AL-WS-DR2C light switch directly drives up to 58 W of LED fixtures and bulbs using low voltage DC instead of 120 V AC. This decorator-style switch in a standard residential outline fits into any home and meets NEC article 411 for low voltage lighting. It has a standard rocker switch with a brightness slider that controls 0-100% smooth dimming when connected to ATX LED's high-quality LED fixtures.

The AL-WS-DR2C supports 10 fixed color temperature or 5 tunable white LED fixtures or a Fan and LED combo.

Key Specifications

Electrical/Operational	
Input voltage range	24 to 52 V DC
Minimum output voltage	6 V, self-calibrating
Maximum output voltage	Input minus 4 V
Minimum output current	1 mA = 0.16% dimming
Fan output	12 volts, 1 amp
Standby power consumption	50 mW
Conversion efficiency	Over 95%
Protection	Reverse protection and static protection, short circuit and overvoltage, hot swap
LED constant current output	660 mA per channel; 300 mA option available
Operating temperature	0°C to 50°C
Standard Connections	
Power source and pass-thru	Spring-loaded connectors (2 pair) for AWG 16-20
PIR+	8 V power to a PIR sensor

Features

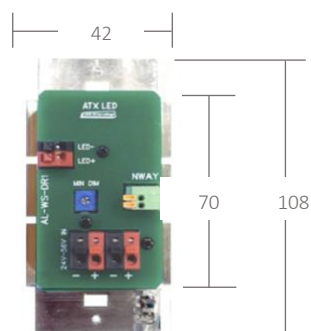
- Elegant decorator-style appearance
- Integrated slider controls 0-100% smooth dimming
- Supports fixed color temperature or tunable white LED fixtures
- Low voltage operation allows installation using AWG 16 or 18
- 3-way compatible using AL-WS-M

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	10	60	2 x 5 series
6	Flat ceiling	P023R6 CCT	4"	660 mA	5	30	5 in series
12	Flat ceiling	P023R11	6"	1440 mA	10	65 ¹	2 x 5 in series
12	Flat ceiling	P023R11 CCT	6"	1440 mA	5	32 ¹	5 in series
6	Recessed	DL-120	4"	660 mA	10	60	2 x 5 in series
6	Recessed	DL-120 CCT	4"	660 mA	5	30	5 in series
6	Gimbal spot	MS31008	3"	660 mA	10	60	2 x 5 in series
6	E26 Bulb	ATX-A60	N/A	660 mA	10	60	2 x 5 series
6	E12 Bulb	ATX-C35	N/A	660 mA	10	60	2 x 5 series
6	E26 Bulb	E26-48v6w	N/A	120 mA	12	72	12x parallel

Note: 1 - These 12 W LEDs will operate at 6.5 W each when used with the DR2 at 720 mA

Model Quick Reference

Ordering	LED	Dimming	0-10 V	Fan	Vacancy/	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

