

AL-WS-DR2

LOW VOLTAGE DABus WALL SWITCH



Smart Wall Switch Dimmer/Driver for LEDs or Fan

The AL-WS-DR2 smart dimmer light switch directly drives up to 56 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 0-100% smooth dimming when connected to ATX LED's high-quality LED fixtures. It operates stand alone, and can communicate with the ATX LED Smart Hub using the DABus (see <https://www.dali-alliance.org/dali/standards.html>) for larger systems.

The AL-WS-DR2 supports 10 fixed color or 5 tunable white LED fixtures. 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	50 mW
Conversion efficiency	Over 95%
Protection	Reverse protection and static protection
Operating temperature	0°C to 50°C
Max LEDs	10 fixed color or 5 tunable white
Standard Connections	
Power source and pass-thru	Spring-loaded connectors (2 pair) for AWG 16-20
LED constant current output	660 or 720 mA per channel Spring-loaded connectors (2 pair)

Features

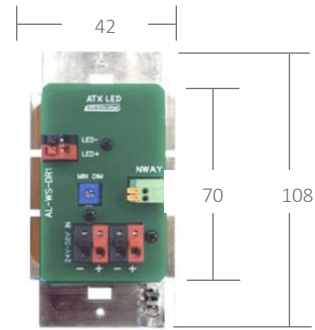
- Standard decorator-style appearance
- IEC 62386 (DABus) built in for smart home controls
- Integrated slider controls 0-100% smooth dimming
- Low voltage operation allows installation using AWG 16 or 18

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
6	Recessed	DL-120	4"	660 mA	10	30	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	16	36	2 x 8 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

