FlowLite

Specification Sheet
Constant-Voltage LED Driver

Smart Wi-Fi & Bluetooth Micro Driver FL-DSM

A 24V DC constant-voltage micro driver and dimmer, controlled from an app over Wi-Fi and Bluetooth or by voice, with no hub required. Single-pole or 3-way. 120VAC input, 96 W or 160 W, dimming from 0.3% to 100%.

AT A GLANCE

Type	Constant-voltage micro driver + dimmer
Input	120VAC, 60 Hz
Output	24V DC (adjustable 24–26V)
Power	96 W or 160 W
Control	Wi-Fi + Bluetooth app, voice; dimmer button with PUSH function
Dimming range	0.3–100%
Output leads	V+, V−
Location	Dry and damp locations
Warranty	3 years

ORDERING GUIDE

MODEL	WATTAGE	VOLTAGE
FL-DSM-		
	96 96 W **160** 160 W	**24** 24V DC

Example: **FL-DSM-96-24** (96 W, 24V DC)



FEATURES

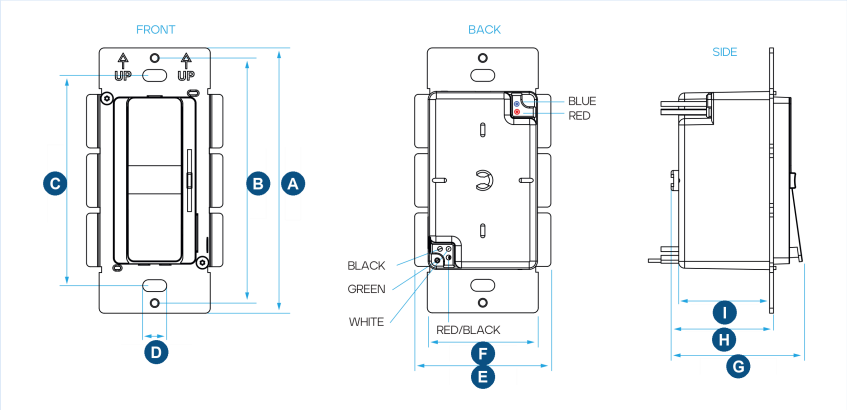
- Wi-Fi + Bluetooth app control, no hub required
- Voice control: works with Alexa and Google Home
- Dimmer button with PUSH function; an external PUSH dimmer can be connected for 3-way dimming
- Driver and dimmer in one unit: no driver/dimmer compatibility issues
- Dimming 0.3–100%, flicker-free 16 kHz PWM, gamma 2.2 curve
- Manual output tuning: 24–26V by knob
- Active PFC: PF ≥0.99, THD ≤10% at full load

MODELS & PERFORMANCE

MODEL	RATED POWER	RATED CURRENT	MAX AC CURRENT	EFFICIENCY	POWER FACTOR	INRUSH CURRENT (TYP.)
FL-DSM-96-24	96 W	4 A	0.9 A	91.0%	≥0.99	50 A, 150 µs at 50% Ipeak
FL-DSM-160-24	160 W	6.67 A	1.5 A	94.5%	≥0.99	54 A, 290 µs at 50% Ipeak

All values at 120VAC input, rated load and 25°C ambient unless noted. Efficiency and power factor at full load. Output 24V DC on both models.

DIMENSIONS



WATTS	A	B	C	D	E	F	G	H	I
96 W	4.13	3.82	3.27	0.37	2.12	1.73	2.047	1.59	1.42
160 W	4.13	3.82	3.27	0.37	2.12	1.73	2.047	1.59	1.42

Inches. Both wattages use the same housing. A–D front view, E–F back view, G–I side view.

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TECHNICAL SPECIFICATIONS

OUTPUT

DC voltage	24V (adjustable 24–26V by knob)
Voltage tolerance	±0.5V
Load regulation	≤1%
Line regulation	≤0.5%
Load	10–100%

INPUT

Voltage	120VAC
Frequency	60 Hz
Power factor (full load)	≥0.99
THD (full load)	≤10%
PFC	Built-in active PFC
Leakage current	<0.5 mA

PROTECTION

Short circuit	Hiccup mode; recovers automatically after the fault is removed
Overload	≥110%, hiccup mode; recovers automatically after the fault is removed
Over-temperature	212°F (100°C) shell surface: output shuts down, recovers automatically after cooling
Cooling	Free-air convection

ENVIRONMENT

Working temperature	-40°F to +140°F (-40°C to +60°C)
Derating	Full load up to 104°F (40°C); 60% load at 140°F (60°C)
Working humidity	20–95% RH, non-condensing
Storage	-40°F to +176°F (-40°C to +80°C), 10–95% RH, non-condensing
Temperature coefficient	±0.03% / °C (0–50°C)
Vibration	10–500 Hz, 2G, 12 min per cycle, 72 min each along X, Y, Z
Location	Dry and damp locations

SAFETY & EMC

Withstand voltage	I/P–O/P 1.8 kVAC; I/P–FG 1.8 kVAC; O/P–FG 0.5 kVAC
Isolation resistance	I/P–O/P 100 MΩ / 500VDC / 25°C / 70% RH
EMC emission	FCC Part 15, Subpart B (ANSI C63.4:2014)
Output	Class 2

LEADS & PHYSICAL

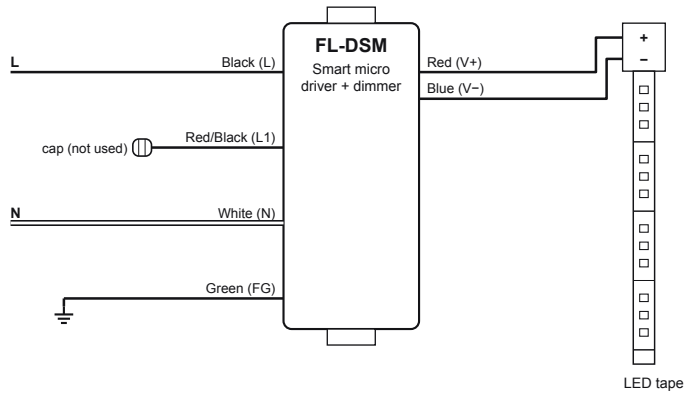
Input leads	4 × 18 AWG: Black (L), Red/Black (L1), White (N), Green (FG)
Output leads	2 × 18 AWG: Red (V+), Blue (V−)
Net weight	0.59 lb (0.27 kg)
Case quantity	20 pcs

Tolerance includes set-up tolerance and load regulation.

WIRING DIAGRAMS

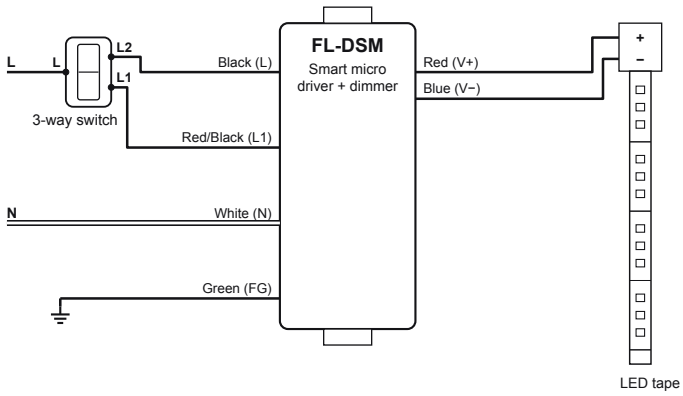
1 Single-pole wiring

AC 120V



2 3-way wiring

AC 120V



• Full wiring steps are on the FL-DSM installation sheet.