



# MAGNETIC DIMMABLE DRIVER

# COMPATIBILITY LIST

To ensure a safe installation and optimal lighting/dimming performance, source the exact dimming control model numbers that appear on this list. Read all footnotes for additional information. Please contact the dimmer switch manufacturer with inquiries about dimmer color/finish options.

**1 COMPATIBLE DIMMER NOTE**  
When using a dimmer, ONLY install a compatible Magnetic Low Voltage Dimmer Switch (pg. 5) or damage to the driver and/or LED fixture may occur. These drivers are not compatible with Incandescent dimmers, ELV Dimmers, or Pulse Width Modulation (PWM) dimmers such as REIGN® Wall Mount LED Dimmers and Inline LED Dimmers.

**3 NOT USING A DIMMER?**  
ALWAYS load the driver a minimum of 60% the labeled load if not using a dimmer or damage to the driver and/or LED fixture may occur.

**2 LOAD CONTROL NO MORE THAN THE LISTED LED LOAD**

**4 277VAC DRIVER NOTE**  
277VAC installations are typically only controlled with an occupancy sensor control or On/Off switch. A few Crestron® dimming systems and Lutron® Occupancy Switches are listed on pg. 4.

Load Capacity <sup>1</sup>

120V / 600VA / 450W MLV / <b>420W LED</b>
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## COMPATIBLE CONTROLS FOR 120VAC MAGNETIC DRIVER MODELS

Single Pole / 3-Way	Model #	Description	Load Capacity <sup>1</sup>	Min Load	Dimming Range <sup>2</sup>	Neutral Required?
Lutron® Diva® MLV Preset Dimmer	DVLV-600P	Single Pole	120V / 600VA / 450W MLV / <b>450W LED</b>	10W	100 - 1%	No
	DVLV-10P	Single Pole	120V / 1000VA / 800W MLV / <b>700W LED</b>	10W	100 - 1%	No
	DVLV-603P	Single Pole / 3-Way	120V / 600VA / 450W MLV / <b>450W LED</b>	10W	100 - 1%	No
	DVLV-103P	Single Pole / 3-Way	120V / 1000VA / 800W MLV / <b>700W LED</b>	10W	100 - 1%	No
Lutron® Skylark Contour® MLV Preset Dimmer	CT-103P	Single Pole / 3-Way	120V / 600VA / 450W MLV / <b>420W LED</b>	10W	100 - 1%	No

Multi-Location & Home Automation	Model #	Description	LED Load Capacity <sup>1</sup>	Min Load	Dimming Range <sup>2</sup>	Neutral Required?
Control 4® Forward Phase Wireless Dimmer	C4-FPD120-WH	Wireless Multi-Location Dimming / Trim-Adjustable	120V / 1000VA / 800W MLV / <b>700W LED</b>	5W	100 - 1%	Yes
	Notes: Enforce min level to allow the fixture to turn on and to avoid flicker at low dimming levels.					
Crestron® iLux® Integrated Lighting Systems	CLS-C6 CLS-C6M CLS-C6EX CLS-C6MEX CLS-C6MRF CLS-C6RF	6-Channel Lighting Systems	120V / 800W / CH <b>600W LED Per Channel</b>	15W Per Channel	100 - 25%	Yes
	Notes: SET TO FORWARD PHASE ONLY. Enforce min level to avoid flicker at low dimming levels.					

## COMPATIBLE CONTROLS FOR 120VAC MAGNETIC DRIVER MODELS

Multi-Location & Home Automation	Model #	Description	LED Load Capacity <sup>1</sup>	Min Load	Dimming Range <sup>2</sup>	Neutral Required?
Crestron® iLux® Dimmer Expansion Module	CLS-EXP-DIM	Dimmer Expansion Module	120V Input: <b>1440W LED</b> 277V Input: <b>3324W LED</b>	15W / CH @ 120V 30W / CH @ 277V	100 - 21%	Yes
	Notes: SET TO FORWARD PHASE ONLY. Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® Multi-Channel Dimmer Modules	CLX-1DIM4 CLX-1DIM8 CLX-2DIM2 CLX-2DIM8	Multi-Channel Dimmer Modules	120V / 1920W INC / <b>1440W LED Per Channel</b>	25W Per Channel	100 - 15%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance. May require custom firmware, see Online Help Answer ID #5330 at <a href="http://www.crestron.com">www.crestron.com</a> or call Crestron technical support at 1.888.273.7876.					
Crestron® DIN Rail 4-Channel Dimmer	DIN-1DIM4	Multi-Location Rail Dimmer	120V Input: <b>420W LED / CH</b> 277V Input: <b>1039W LED / CH</b>	15W Per Channel	100 - 8%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® Cameo® INC/HAL/MLV Express Wireless In-Wall Dimmer	CLW-DIMEX-E	Multi-Location (RF) Trim-Adjustable	120V / 750VA / <b>563W LED</b>	25W	100 - 25%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® Cameo® INC/HAL/MLV Wireless In-Wall Dimmer	CLW-DIMEX-P	Multi-Location (RF) Trim-Adjustable	120V / 750VA / <b>563W LED</b>	25W	100 - 25%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® Cameo® INC/HAL/MLV Express Wireless In-Wall Dimmer/Switch Combo	CLW-DIMSWEX-E	Multi-Location (RF) Trim-Adjustable	120V / 500W INC / <b>375W LED</b>	25W	100 - 25%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® Cameo® INC/HAL/MLV Wireless In-Wall Dimmer/Switch Combo	CLW-DIMSWEX-P	Multi-Location (RF) Trim-Adjustable	120V / 500W INC / <b>375W LED</b>	25W	100 - 25%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® 6-Channel Dimmer Module	GLX-DIM6	Multi-Location Dimmer Module	120V Input: <b>1440W LED/ CH</b> 277V Input: <b>3324W LED / CH</b>	15W / CH @ 120V 30W / CH @ 277V	100 - 7%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® 8-Channel Dimmer Module	GLXX-2DIM8	Multi-Location Dimmer Module	120V Input: <b>1440W LED/ CH</b> 277V Input: <b>3324W LED / CH</b>	25W / CH @ 120V 25W / CH @ 277V	100 - 10%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Lutron® Grafik Eye® 3000	GRX-3102	2 - Zone Control	120V / 800W INC per Zone/ <b>600W LED per Zone</b>	10W Per Zone	100 - 1%	Yes
	GRX-3103	3- Zone Control	120V / 800W INC per Zone/ <b>600W LED per Zone</b>			
	GRX-3104	4- Zone Control	120V / 800W INC per Zone/ <b>600W LED per Zone</b>			
	GRX-3106	6- Zone Control	120V / 800W INC per Zone/ <b>600W LED per Zone</b>			
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					

## COMPATIBLE CONTROLS FOR 120VAC MAGNETIC DRIVER MODELS

Multi-Location & Home Automation	Model #	Description	LED Load Capacity <sup>1</sup>	Min Load	Dimming Range <sup>2</sup>	Neutral Required?
Lutron® Grafik Eye® QS (Non-RF)	QSGR-3P	3- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone	10W Per Zone	100 - 1%	Yes
	QSGR-4P	4- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone			
	QSGR-6P	6- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone			
	QSGR-8P	8- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone			
Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.						
Lutron® Grafik Eye® QS Wireless (RF)	QSGRJ-3P	3- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone	10W Per Zone	100 - 1%	Yes
	QSGRJ-4P	4- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone			
	QSGRJ-6P	6- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone			
	QSGRJ-8P	8- Zone Control	120V / 800W INC per Zone/ 600W LED per Zone			
Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.						
Lutron® Homeworks® QS Neutral Wire Dimmers	HWA-6ND	Multi-Location Dimming / Trim-Adjustable	120V / 600W / 450W LED	10W	100 - 1%	Yes
	HWD-6ND	Multi-Location Dimming / Trim-Adjustable	120V / 600W / 450W LED	10W	100 - 1%	Yes
	HWD-10ND	Multi-Location Dimming / Trim-Adjustable	120V / 1000W / 750W LED	10W	100 - 1%	Yes
	HQRA-6ND	Multi-Location (RF)Dimming / Trim-Adjustable	120V / 600W / 450W LED	10W	100 - 1%	Yes
	HQRA-10ND	Multi-Location (RF)Dimming / Trim-Adjustable	120V / 1000W / 750W LED	10W	100 - 1%	Yes
	HQRD-6ND	Multi-Location (RF)Dimming / Trim-Adjustable	120V / 600W / 450W LED	10W	100 - 1%	Yes
	HQRD-10ND	Multi-Location (RF)Dimming / Trim-Adjustable	120V / 1000W / 750W LED	10W	100 - 1%	Yes
Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.						
Lutron® MAESTRO® WIRELESS MLV Dimmer	MRF2-6ND-120	Wireless Multi-Location Dimming / Trim-Adjustable	120V / 600VA / 450W MLV / 450W LED	25W	100 - 1%	Yes
Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.						
Lutron® RadioRA2® Wireless MLV Dimmer	RRD-10ND	Wireless Multi-Location Dimming / Trim-Adjustable	120V / 1000VA / 800W MLV / 750W LED	10W	100 - 1%	Yes
Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.						
Lutron® Vareo® MLV Preset Dimmer	V-600	Multi-Location Switching*	120V / 600VA / 450W MLV / 450W LED	10W	100 - 1%	No
	V-1000	Multi-Location Switching*	120V / 1000VA / 800W MLV / 750W LED	10W	100 - 1%	No
Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.						

## COMPATIBLE CONTROLS FOR 120VAC MAGNETIC DRIVER MODELS

Occupancy Sensor Controls	Model #	Description	LED Load Capacity <sup>1</sup>	Min Load	Dimming Range <sup>2</sup>	Neutral Required?
Leviton® Decora® Motion Sensor Switch	IPS02	Single Pole	120V / 300W INC / 150W LED	None	Switching Only	No
	Notes: This is an occupancy sensor switch, not a dimming control. Automatically, or manually turns lights On/Off.					
Lutron® Maestro® Occupancy Sensor Switch	MS-OPS5MH	Single Pole / 3-Way	120V / 600W INC / 360W LED	None	Switching Only	No
	Notes: This is an occupancy sensor switch, not a dimming control. Automatically, or manually turns lights On/Off.					

## COMPATIBLE CONTROLS FOR 277VAC MAGNETIC DRIVER MODELS

Multi-Location & Home Automation	Model #	Description	LED Load Capacity <sup>1</sup>	Min Load	Dimming Range <sup>2</sup>	Neutral Required?
Crestron® iLux® Dimmer Expansion Module	CLS-EXP-DIM	Dimmer Expansion Module	120V Input: <b>1440W LED</b> 277V Input: <b>3324W LED</b>	15W / CH @ 120V 30W / CH @ 277V	100 - 21%	Yes
	Notes: SET TO FORWARD PHASE ONLY. Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® DIN Rail 4-Channel Dimmer	DIN-1DIM4	Multi-Location Rail Dimmer	120V Input: <b>420W LED / CH</b> 277V Input: <b>1039W LED / CH</b>	15W Per Channel	100 - 8%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® 6-Channel Dimmer Module	GLX-DIM6	Multi-Location Dimmer Module	120V Input: <b>1440W LED/CH</b> 277V Input: <b>3324W LED / CH</b>	15W / CH @ 120V 30W / CH @ 277V	100 - 7%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					
Crestron® 8-Channel Dimmer Module	GLXX-2DIM8	Multi-Location Dimmer Module	120V Input: <b>1440W LED/CH</b> 277V Input: <b>3324W LED / CH</b>	25W / CH @ 120V 25W / CH @ 277V	100 - 10%	Yes
	Notes: Adjust minimum trim to avoid flicker at low brightness and optimize dimming performance.					

Occupancy Sensor Controls	Model #	Description	LED Load Capacity <sup>1</sup>	Min Load	Dimming Range <sup>2</sup>	Neutral Required?
Lutron® Maestro® Occupancy Sensor Switch 6A PIR Single Circuit	MS-OPS6M2-DV	Single Pole / 3-Way	277V / 1662W / <b>1247W LED</b>	None	Switching Only	No
	Notes: This is an occupancy sensor switch, not a dimming control. Automatically, or manually turns lights On/Off.					
Lutron® Maestro® Occupancy Sensor Switch PIR Single Circuit	MS-OPS6M2N-DV	Single Pole / 3-Way	277V / 1662W / <b>1247W LED</b>	None	Switching Only	Yes
	Notes: This is an occupancy sensor switch, not a dimming control. Automatically, or manually turns lights On/Off.					
Lutron® Maestro® Occupancy Sensor Switch PIR Dual Circuit	MS-OPS6-DDV	Single Pole	277V / 1662W / <b>1247W LED</b>	None	Switching Only	No
	Notes: This is an occupancy sensor switch, not a dimming control. Automatically, or manually turns lights On/Off.					

## NOTES

**Note**<sup>1</sup> It's important to not load the dimming control more than the LED load capacity listed on this compatibility list. LED loads may exhibit an inrush current when switched on, which may overload the dimming control. These LED loads have been pre-calculated for easy reference (they are not listed on the dimming control). As a general rule of thumb, use the following formula to calculate the maximum LED load for Magnetic Low Voltage dimming controls:

$$L_{LED\ load} = D_{Dimmer\ load} \times .75$$

For example, let's calculate the LED load for the Lutron Diva INC/HAL Preset Dimmer (DV-600P). This dimmer has a 600W incandescent load.

$$L_{LED\ load} = 600W \times .70 = 450W$$

**Note**<sup>2</sup> Dimming Range is based on the minimum and maximum measured lux (lx) values of the dimming control.

## VOLTAGE DROP CHARTS

For best performance and lumen output, ensure proper wire gauge is installed to compensate for voltage drop of low voltage circuits.

### Example: 12V Voltage Drop & Wire Length Distance Chart

Wire Gauge	10 W .83 A	20 W 1.7 A	30 W 2.5 A	40 W 3.3 A	50 W 2.1 A	60 W 4.2 A
18 AWG	34 ft.	17 ft.	11 ft.	8 ft.	6 ft.	5 ft.
16 AWG	54 ft.	27 ft.	18 ft.	13 ft.	10 ft.	9 ft.
14 AWG	86 ft.	43 ft.	29 ft.	21 ft.	17 ft.	14 ft.
12 AWG	134 ft.	68 ft.	45 ft.	34 ft.	27 ft.	22 ft.
10 AWG	199 ft.	99 ft.	66 ft.	49 ft.	39 ft.	33 ft.



1 Determine load size. Let's assume load is 55 W. Round up to nearest load.



2 Determine distance from driver to load. Let's assume the distance is 20 ft.



3 It's recommended to install 12 AWG to eliminate excess voltage drop.

### 12V Voltage Drop & Wire Length Distance Chart

Wire Gauge	10 W .83 A	20 W 1.7 A	30 W 2.5 A	40 W 3.3 A	50 W 2.1 A	60 W 4.2 A
18 AWG	34 ft.	17 ft.	11 ft.	8 ft.	6 ft.	5 ft.
16 AWG	54 ft.	27 ft.	18 ft.	13 ft.	10 ft.	9 ft.
14 AWG	86 ft.	43 ft.	29 ft.	21 ft.	17 ft.	14 ft.
12 AWG	134 ft.	68 ft.	45 ft.	34 ft.	27 ft.	22 ft.
10 AWG	199 ft.	99 ft.	66 ft.	49 ft.	39 ft.	33 ft.

### 24V Voltage Drop & Wire Length Distance Chart

Wire Gauge	10 W .42 A	20 W .83 A	30 W 1.3 A	40 W 1.7 A	50 W 2.1 A	60 W 2.5 A	70 W 2.9 A	80 W 3.3 A	100 W 4.2 A
18 AWG	134 ft.	68 ft.	45 ft.	33 ft.	27 ft.	22 ft.	19 ft.	17 ft.	14 ft.
16 AWG	215 ft.	109 ft.	72 ft.	54 ft.	43 ft.	36 ft.	31 ft.	27 ft.	22 ft.
14 AWG	345 ft.	174 ft.	115 ft.	86 ft.	69 ft.	57 ft.	49 ft.	43 ft.	36 ft.
12 AWG	539 ft.	272 ft.	181 ft.	135 ft.	108 ft.	90 ft.	77 ft.	68 ft.	56 ft.
10 AWG	784 ft.	397 ft.	263 ft.	197 ft.	158 ft.	131 ft.	112 ft.	98 ft.	82 ft.

## ADDITIONAL RESOURCES

Visit the online product page at [www.DiodeLED.com](http://www.DiodeLED.com) for additional resources including:

- **12V MAGNETIC DIMMABLE DRIVER Specification Sheet**  
For full specifications.
- **24V MAGNETIC DIMMABLE DRIVER Specification Sheet**  
For full specifications.
- **MAGNETIC DIMMABLE DRIVER Installation Guide**  
For system diagrams and full installation instructions.



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