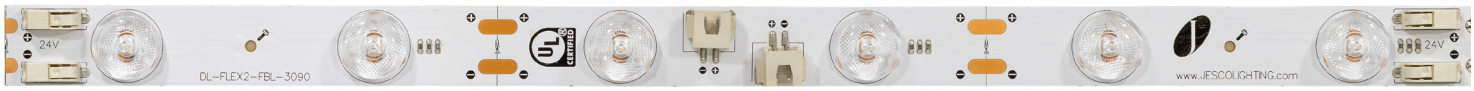
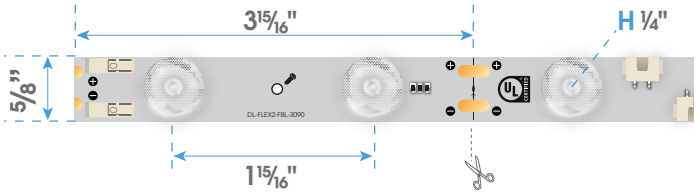
DL-FLEX2-FBL

BACKLIT LINEAR WITH BATWING OPTICS
24V FLEXIBLE LED STRIP

JESCO LIGHTING GROUP

Fixture Type	
Project	
Notes	





JESCO Lighting's DL-FLEX2-FBL offers an easy-to-install and cost-effective lighting solution for various backlit applications, including showcases, billboards, and signage lightboxes. Its integral 180° optic with batwing distribution ensures even illumination, even in low-profile lightboxes. Integral connectors facilitate the seamless joining of multiple strips for uniform spacing. Installation is made easy with pre-attached 3M® double-sided tape or mechanical fasteners in designated mounting holes. The flexible linear design is dimmable using JESCO's range of dimming options.

24V DC | 180° BEAM | DIMMABLE | 4IN MIN RUN | 20FT MAX RUN | FIELD CUTTABLE | 3SDCM | DAMP INDOOR | L70 50,000 HOURS | 5 YEAR WARRANTY | UL CERTIFIED SAFETY US E314183

SPECIFICATIONS

INPUT VOLTAGE	24V DC
WATTAGE	2.9 W/ft
LUMENS	See Performance Chart below
CRI	90+
BEAM ANGLE	180° Batwing
DIMMING SIGNAL	PWM
DIMMING INPUT[1]	0-10V / MLV/ ELV / TRIAC / C•L
	tuya Wifi Smart Control, see page 6
	CASAMBI READY, see page 7
MIN RUN / MAX RUN[2]	4" / 20'

[1] Must be paired with compatible JESCO dimmable driver or controller.

[2] Single runs can not exceed max run length. Cuts can only be made on the cutting mark.

DIMENSIONS	5/8" W x 1/4" H
AMBIENT TEMPERATURE[3]	-4° to 113°F (-20° to 45°C)
COLOR CONSISTENCY	3 Steps MacAdam - Single Bin LEDs
ENVIRONMENT	Indoor - Dry
CERTIFICATIONS	cULus Listed
WARRANTY[4]	5 Years

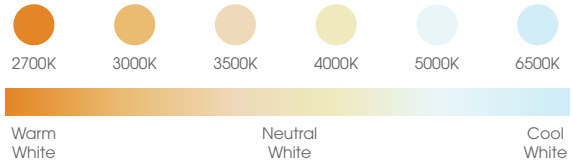
[3] Exceeding the ambient or operating temperature values may damage the LEDs by reducing the lifespan, lumen output, and/or adversely impact color consistency. It is recommended adequate airflow be taken into consideration in the installation and application of this product. Improper thermal management may lead to premature product failure and void the warranty.

[4] Low Voltage LED Flexible Linear shall have a limited warranty of up to five (5) years from the original date of shipment. All LED Flexible Linear products will be deemed defective if there is a failure of 10% or more of the LED components. Where a replacement is warranted, custom cut-to-order LED Flexible Linear will only be replaced as originally ordered. See published warranty terms for detailed information.

PERFORMANCE

COLOR TEMPERATURE[5]	LUMENS	WATTAGE	EFFICACY	CRI
2700K	234 lm/ft	2.9 W/ft	90 lm/W	90+
3000K	260 lm/ft	2.9 W/ft	90 lm/W	90+
3500K	260 lm/ft	2.9 W/ft	90 lm/W	90+
4000K	274 lm/ft	2.9 W/ft	95 lm/W	90+
5000K	274 lm/ft	2.9 W/ft	95 lm/W	90+
6500K	288 lm/ft	2.9 W/ft	95 lm/W	90+

[5] +/- 10%



ORDERING INFO

ORDERED BY THE FOOT

SERIES: **DL-FLEX2** – MODEL: **FBL** – COLOR:

- **2790** - 2700K / 90CRI
- **3090** - 3000K / 90CRI
- **3590** - 3500K / 90CRI
- **4090** - 4000K / 90CRI
- **5090** - 5000K / 90CRI
- **6590** - 6500K / 90CRI

- Specify required amount of 1 FT lengths before the ordering number. Example: **10 x DL-FLEX2-FBL-4090**

ORDERED BY THE REEL

SERIES: **DL-FLEX2** – MODEL: **FBL** – COLOR: – REEL LENGTH: **50FT**

- **2790** - 2700K / 90CRI
- **3090** - 3000K / 90CRI
- **3590** - 3500K / 90CRI
- **4090** - 4000K / 90CRI
- **5090** - 5000K / 90CRI
- **6590** - 6500K / 90CRI

- DL-FLEX2-FBL-50FT is packed in 50' reel lengths. Example: **DL-FLEX2-FBL-4090-50FT**

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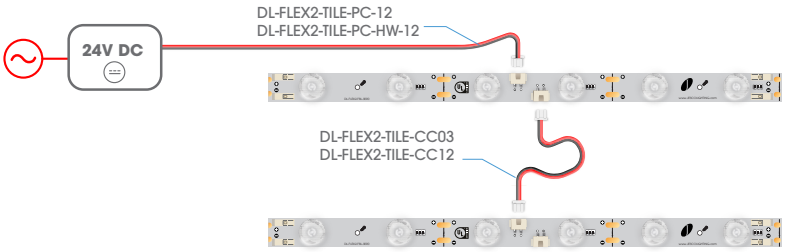
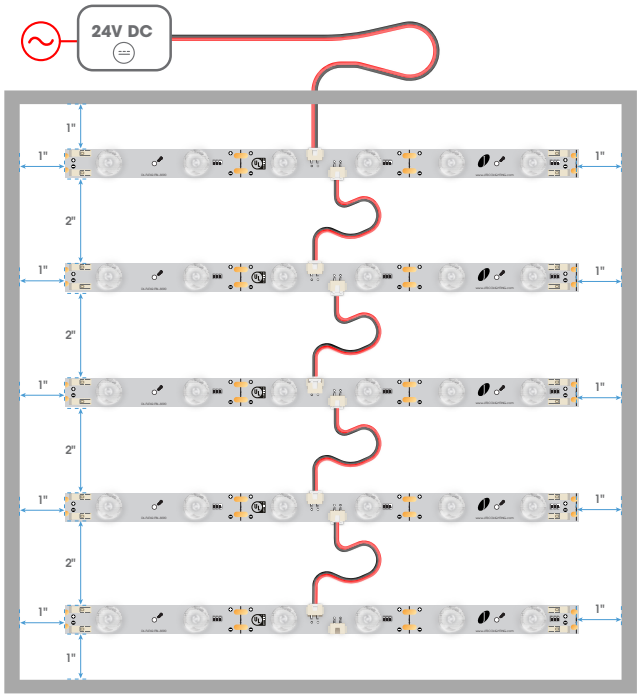
DL-FLEX2-FBL

BACKLIT LINEAR WITH BATWING OPTICS
24V FLEXIBLE LED STRIP

Fixture Type	
Project	
Notes	

WIRING SCHEMATIC



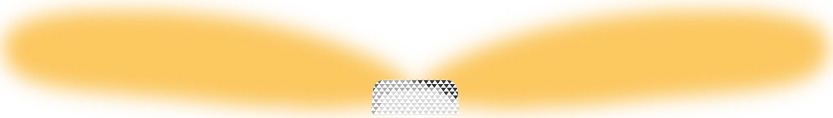


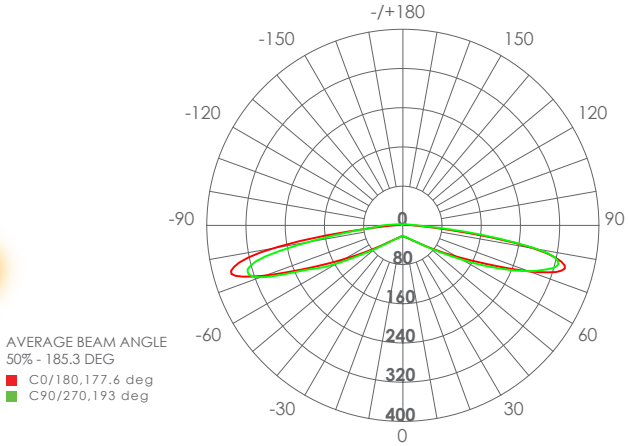
SUGGESTED INSTALLATION SPACING

FLEX2 FBL Series – How to install the Flexible Backlit Linear with Batwing Optics

POLAR DIAGRAM

Integral 180° optic with batwing distribution
ensures even illumination, even in low-profile lightboxes





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Fixture Type	
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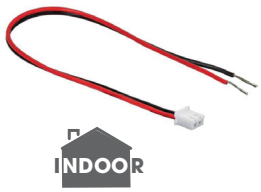
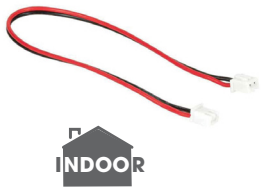
Notes	

WIRING ACCESSORIES

PART NUMBER	**DL-FLEX2-TILE-PC-12**
DESCRIPTION	12" cable length plug and play power cord

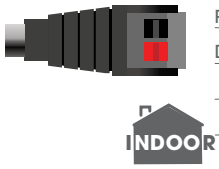


PART NUMBER	**DL-FLEX2-TILE-PC-HW-12**
DESCRIPTION	12" cable length hardwire power cord

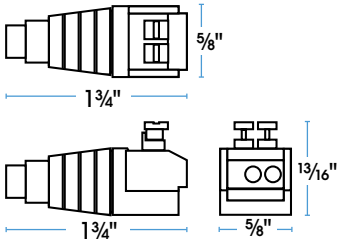


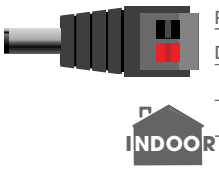
PART NUMBER	**DL-FLEX2-TILE-CC03**
	DL-FLEX2-TILE-CC06
DESCRIPTION	**DL-FLEX2-TILE-CC12**
	DL-FLEX2-TILE-CC40
	3", 6", 12" and 40"
	connecting cables

WIRING ACCESSORIES • TERMINAL BLOCK CONNECTORS

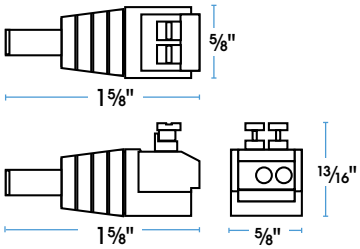


PART NUMBER	**DL-FLEX2-TB-PT-M**
DESCRIPTION	**Input** Connector (socket) PT-M, Trade term: Female
	Tool-less terminal block PT-M Converts hardwire
	to **male** PT connector.
	Input port size: 5.5 x 2.1 mm. Input Voltage: 5V - 24V



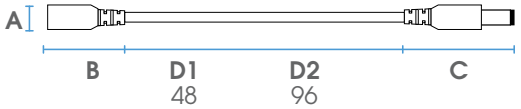


PART NUMBER	**DL-FLEX2-TB-PT-F**
DESCRIPTION	**Output** Connector (socket) PT-F, Trade term: Male
	Tool-less terminal block PT-F Converts hardwire
	to **female** PT connector.
	Output port size: 5.5 x 2.1 mm. Input Voltage: 5V - 24V

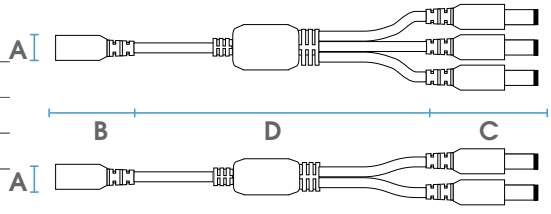


WIRING ACCESSORIES • MOUNTING

PART NUMBER	**DL-PS-EXT {48, 48-WH, 96, 96-WH}**
DESCRIPTION	48" / 96" Extension Cable. Black Finish is the
	standard. Specify White Finish with -WH.
MAX. CURRENT	4A
DIMENSIONS	**A** ½" (11.8 mm) **B** 1⅝" (41 mm) **C** 1¾" (43 mm)
	D1 48" (1220 mm) **D2** 96" (2440 mm)



PART NUMBER	**DL-PS- {2Y, 3Y}**
DESCRIPTION	2Y / 3Y Splitter4A
DIMENSIONS	**A** ½" (11.8mm) **B** 1⅝" (41 mm) **C** 1¾" (43 mm)
	D 1½" (38 mm)



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DL-FLEX2-FBL

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24V FLEXIBLE LED STRIP

Fixture Type	
Project	
Notes	

LED POWER SUPPLIES • 24V DC

Wall plug

Desktop

Hardwire

Hardwire w/ J-Box

Hardwire w/ J-Box

Intertek

	MODELS	IP RATING	INPUT TERMINATION	INPUT VOLTAGE	DIMMING	DIMENSIONS	DOWNLOAD
24W	DL-PS-WP24/24	Indoor/dry	Wall Plug	120V AC	No*	3 ¼" L x 1 ¾" W x 1 ¼" H	SPEC
	DL-PS-24/24	Indoor/dry	Desktop Plug-in	120V AC	No*	3 ½" L x 1 ½" W x 1" H	SPEC
30W	DL-PS-30/24-JB-OD-S	IP66	Hardwire w/ J-Box	120-277V AC	No*	6 ¼" L x 3 ¾" W x 1 ¾" H	SPEC
	DL-PS-30/24-JB-OD-UNI-DIM	IP66	Hardwire w/ J-Box	100-277V AC	Phase/0-10V	6 ¾" L x 3 ¾" W x 1 ¾" H	SPEC
40W	DL-PS-48/24	Indoor/dry	Desktop Plug-in	120V AC	No*	4 ⅜" L x 2" W x 1 ⅛" H	SPEC
	DL-PS-40/24-JB-DIM-A	Indoor/dry	Hardwire w/ J-Box	100-277V AC	Phase	7" L x 2 ¾" W x 1 ⅜" H	SPEC
	DL-PS-L3DA3W	Indoor/dry	Hardwire w/ J-Box	120-277V AC	Phase/Hi-Lume	4 ¾" L x 4" W x 2 ⅝" H	SPEC
60W	DL-PS-60/24	Indoor/dry	Desktop Plug-in	120V AC	No*	4 ⅜" L x 1 ½" W x 1 ½" H	SPEC
	DL-PS-60/24-CL2	Indoor/dry	Desktop Plug-in	120V AC	No*	5 ⅛" L x 2 1⁄16"W x 1 ⅜" H	SPEC
	DL-PS-60/24-JB-OD-S	IP66	Hardwire w/ J-Box	120-277V AC	No*	7 ⅝" L x 3 ¾" W x 1 ¾" H	SPEC
	DL-PS-60/24-JB-DIM-A	Indoor/dry	Hardwire w/ J-Box	100-277V AC	Phase	7" L x 2 ¾" W x 1 ⅜" H	SPEC
	DL-PS-60/24-JB-OD-UNI-DIM	IP66	Hardwire w/ J-Box	100-277V AC	Phase/0-10V	7 ⅝" L x 3 ¾" W x 1 ¾"H	SPEC
90W	DL-PS-90/24-CL2	Indoor/dry	Desktop Plug-in	120V AC	No*	4 ⅞" L x 2 ¾" W x 1 ⅜" H	SPEC
96W	DL-PS-100/24-CL2	Indoor/dry	Desktop Plug-in	120V AC	No*	7 ⅞" L x 2 ¾" W x 1 ⅜" H	SPEC
	DL-PS-96/24-HWD	Indoor/dry	Hardwire	120-277V AC	No*	9 ½" L x 1 11⁄16" W x 1" H	SPEC
	DL-PS-96/24-JB-OD-S	IP66	Hardwire w/ J-Box	120-277V AC	No*	8 ⅞" L x 3 ¾" W x 1 ¾" H	SPEC
	DL-PS-96/24-JB-DIM-A	Indoor/dry	Hardwire w/ J-Box	100-277V AC	Phase	7" L x 2 ¾" W x 1 ⅜" H	SPEC
	DL-PS-96/24-JB-OD-UNI-DIM	IP66	Hardwire w/ J-Box	100-277V AC	Phase/0-10V	8 ⅞" L x 3 ¾" W x 1 ¾" H	SPEC
	DL-PS-96/24-JB-OD-UNI-DIM-JA8	IP66	Hardwire w/ J-Box	100-277V AC	Phase/0-10V	8 ⅝" L x 3 ¾" W x 1 ¾" H	SPEC
	DL-PS-96/24-347V-JB-OD-DIM	IP66	Hardwire w/ J-Box	200-347V AC	0-10V	8 ⅝" L x 5" W x 1 ¾" H	SPEC
	DL-PS-L3D03W	Indoor/dry	Hardwire w/ J-Box	120-277V AC	Phase/ Hi-Lume	10 ½" L x 5 ½" W x 1 ⅞" H	SPEC
96W Multi	DL-PS-96x2/24-JB-OD-UNI-DIM	IP66	Hardwire w/ J-Box	100-277V AC	Phase/0-10V	11 ⅞" L x 4 ⅛" W x 1 ¾" H	SPEC
	DL-PS-96x3/24-JB-OD-UNI-DIM	IP66	Hardwire w/ J-Box	100-277V AC	Phase/0-10V	12 ⅞" L x 4 ⅛" W x 1 ¾" H	SPEC
	DL-PS-96x4/24-JB-OD-UNI-DIM	IP66	Hardwire w/ J-Box	100-277V AC	Phase/0-10V	12 ⅞" L x 5 ¼" W x 1 ⅞" H	SPEC

* Additonal controller required

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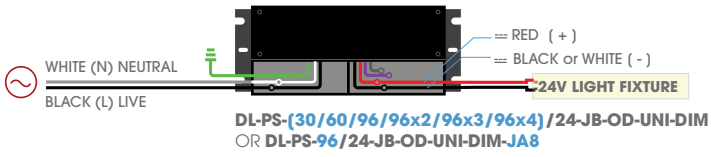
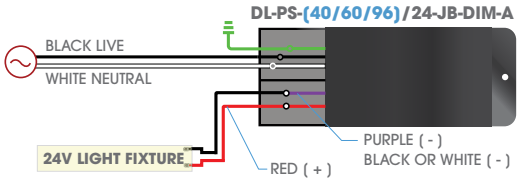
Fixture Type	
Project	
Notes	

TYPICAL WIRING

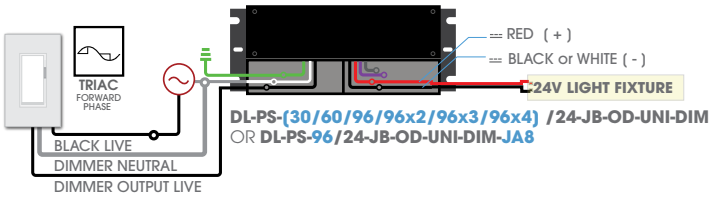
For reference only, not for actual installation

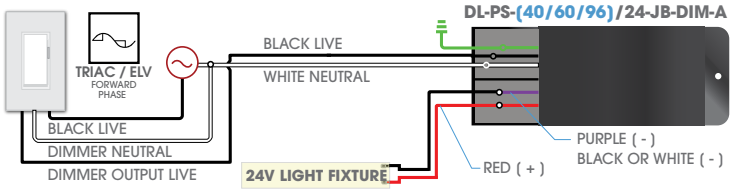
Direct Wiring - No dimming



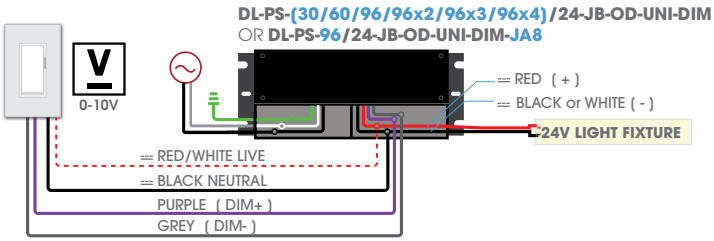


Phase Dimming - with TRIAC or ELV





0-10V Dimming



FLICKER-FREE CONFIDENCE

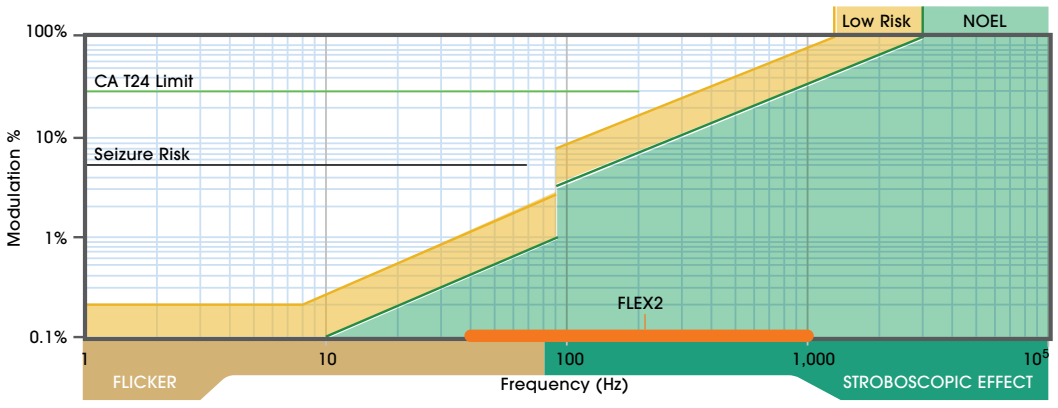
At JESCO, we're committed to delivering high-performance lighting that supports industry best practices for visual comfort and safety. Our products are engineered to be flicker-free, meeting the latest safety guidelines outlined in the IEEE 1789 Recommended Practice by Lehman and Wilkins.
The chart below illustrates how flicker frequency may impact people:

Green Zone – No Noticeable Effects: Safe and comfortable for everyday use.
Yellow Zone – Low Risk: Most users won't notice, though a small number of individuals may be slightly sensitive.

CALIFORNIA JA8 TITLE 24 COMPLIANT

When paired with:

DL-PS-96/24-JB-OD-UNI-DIM-JA8



NOEL - No Observable Effect Level

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SWITCH/SENSORS, 0-10V DIMMING INTERFACES, & CONTROLS

IN-LINE SWITCH /SENSOR

In-line Touch Switch

In-line Passive Infrared Switch

MODELS	IP RATING	DESCRIPTION	DIMENSIONS	DOWNLOAD
DL-PS-SW-WH	Indoor/dry	In-line Plug & Play capacitive touch switch w/ dimming	⅞" Ø x ⅝" H	SPEC
DL-PS-SW-PIR-BK	Indoor/dry	In-line Plug & Play PIR motion sensor on/off switch	1 ¾" L x 1 ⅝" W x ¾" H	SPEC
DL-PS-SW-PIR-DOOR	Indoor/dry	In-line Plug & Play PIR door on/off switch	1 ¾" L x 1 ⅛" W x ⅜" H	SPEC

0-10V DIMMING INTERFACE FOR NON-DIMMABLE POWER SUPPLIES

For Non-Dimmable Power Supplies

Interface P&P

MODELS	IP RATING	DESCRIPTION	DIMENSIONS	DOWNLOAD
LC-DIM5A	Indoor/dry	Built-in 0-10V Plug & Play dimming interface w/ PWM output.	4 ¼"L x 1 ⅞"W x 1 ⅛"H	SPEC
LC-DIM5A-HW	Indoor/dry	0-10V Hardwire dimming interface. Requires separate 0-10V dimmer switch.	6 ¼"L x 3"W x 1 ½"H	SPEC
LC-DIM200-RF-HW	Indoor/dry	Basic Handheld Receiver/Remote Dimming Kit.	4 ¼"L x 2 ⅛" W x 1 ⅜" H	SPEC

RADIO FREQUENCY REMOTE CONTROL

Must select (1) control and (1) receiver

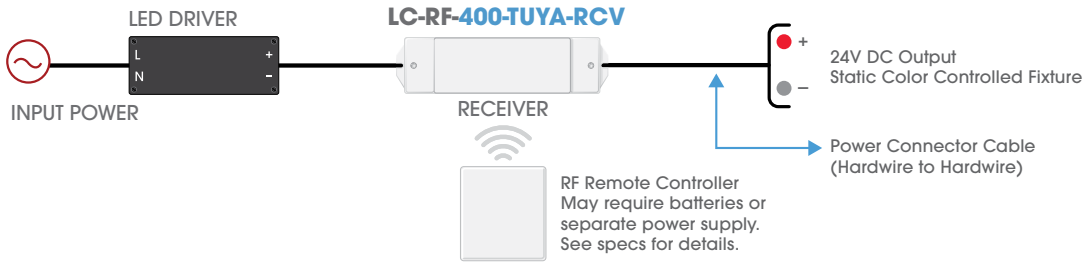
RF Receiver

Handheld RF Control

Wall Mounted RF Control

MODELS	IP RATING	DESCRIPTION	DIMENSIONS	DOWNLOAD
LC-RF-400-TUYA-RCV	Indoor/dry	5-Channel RF Receiver with TUYA Smart Control.	5 ¾"L x 1 ⅞"W x ⅝"H	SPEC
LC-RF-400H-DIM	Indoor/dry	Handheld RF Dimmer Control. Requires a receiver.	4 ¾"L x 2 ¼"W x ¾"H	
LC-RF-402-DIM	Indoor/dry	Wall Mounted Dual RF Dimmer Control. Requires a receiver.	4 ¾"L x 3"W x 11/16"H	
LC-RF-400W-DIM	Indoor/dry	Wall Mounted RF Dimmer Control. Requires a receiver.	4 ¾"L x 2 15/16"W x 1 3/16"H	

WIRING SCHEMATIC



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Specifications subject to change without notice REV. 10/08/2025

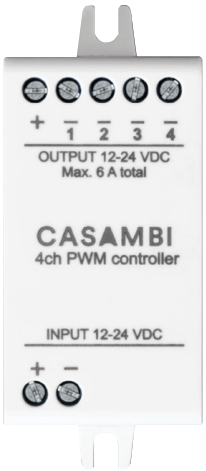
DL-FLEX2-FBL

BACKLIT LINEAR WITH BATWING OPTICS
24V FLEXIBLE LED STRIP

Fixture Type	
Project	
Notes	

CASAMBI READY

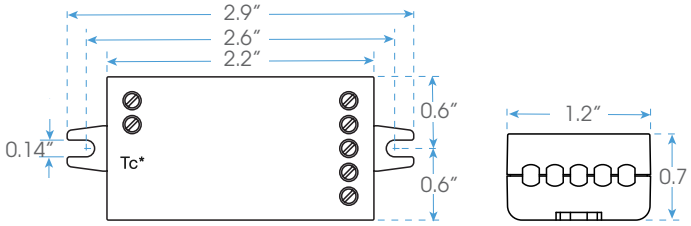
NOTE: Our products work with CASAMBI. CASAMBI device is sold separately through a third party



Download on the App Store

ANDROID APP ON Google play

Compatible devices
iPhone iOS 10 and later are supported
iPad iOS 10 and later are supported
Android 4.4 version (KitKat)
and later are supported

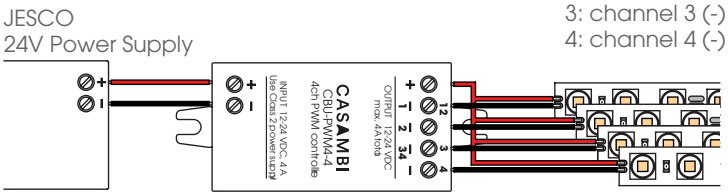


* Tc point is on bottom side

MODEL	CBU-PWM4-4
RATED POWER	96W
RATED CURRENT	4A
INPUT	24V DC
DC OUTPUT	24V DC
MIN. LOAD	0W
DIMMING METHOD	PWM Pulse Width Modulation
OPERATING FREQUENCIES	2400-2480 MHz
MAX. OUTPUT POWER	+4dBm
AMBIENT TEMPERATURE, ta	-4F° - 113F°
MAX. CASE TEMPERATURE, tc	167F°
STORAGE TEMPERATURE	-13F° - 167F°
MAX. RELATIVE HUMIDITY	0-80%, non condensing
ENVIRONMENT	Indoor, Dry IP20
WIRE GAUGE INPUT/OUTPUT	14-22AWG Solid or Stranded
WIRE STRIP LENGTH	0.2″
TIGHTENING FORECE	0.4Nm
MAX. INPUT CABLE LENGTH	10 Ft
MAX. LOAD CABLE LENGTH	10 Ft
WEIGHT	23 g

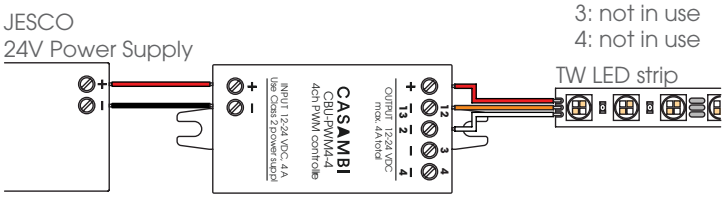
Static white
1-4 separate channels

+: common (+)
1: channel 1 (-)
2: channel 2 (-)
3: channel 3 (-)
4: channel 4 (-)



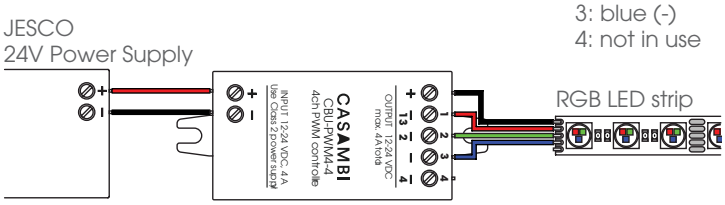
Tunable white

+: common (+)
1: warm (-)
2: cool (-)
3: not in use
4: not in use



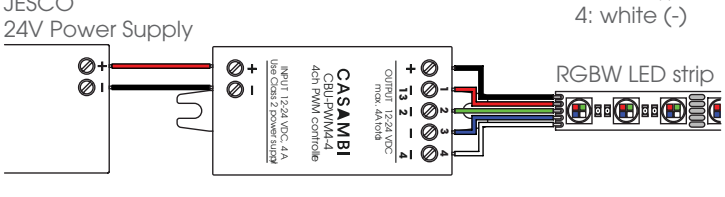
RGB

+: common (+)
1: red (-)
2: green (-)
3: blue (-)
4: not in use



RGBW

+: common (+)
1: red (-)
2: green (-)
3: blue (-)
4: white (-)



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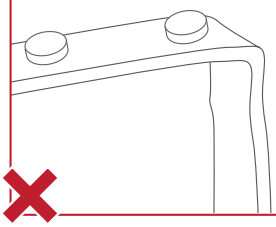
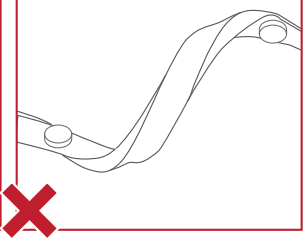
CAUTIONS

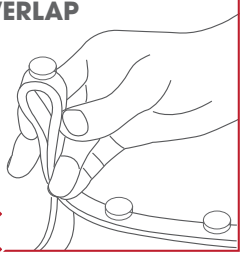
DO NOT BEND 90 DEGREE



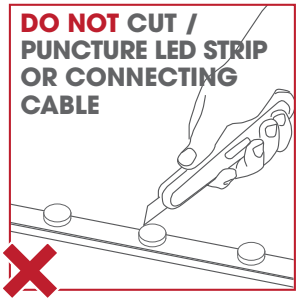
DO NOT TWIST



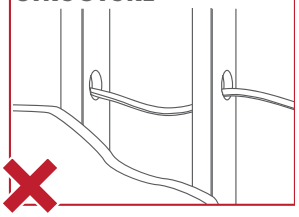
DO NOT FOLD OR OVERLAP



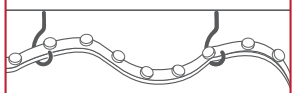
DO NOT CUT / PUNCTURE LED STRIP OR CONNECTING CABLE



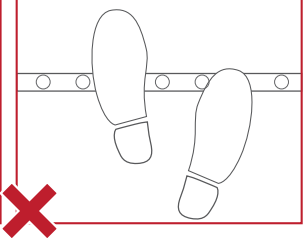
DO NOT INSTALL INSIDE BUILDING STRUCTURE



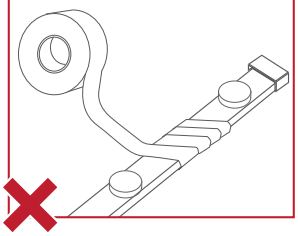
DO NOT HANG OR SUSPEND



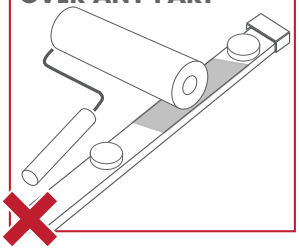
DO NOT STEP ON OR PUT OBJECTS ON TOP



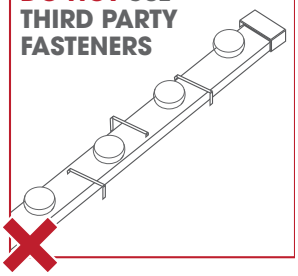
DO NOT COVER OR WRAP TAPE OVER



DO NOT PAINT OVER ANY PART

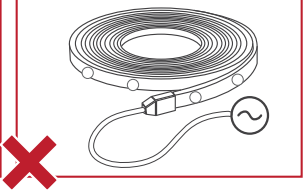


DO NOT USE THIRD PARTY FASTENERS

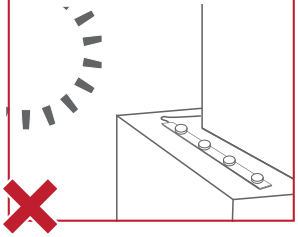


DO NOT USE ADHESIVE FOR INSTALLATION

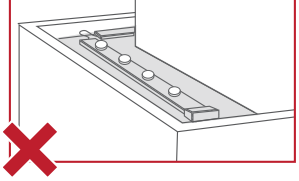
DO NOT POWER ON WHEN STRIP LIGHT IS IN A POOL OR A REEL

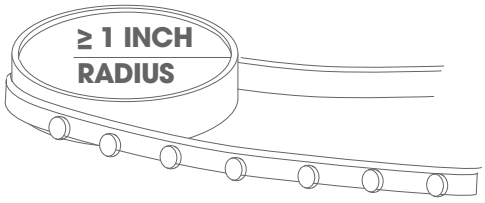


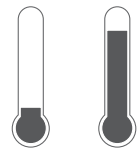
DO NOT INSTALL IN DIRECT SUNLIGHT



DO NOT SUBMERGE OR INSTALL IN AREA WHERE IT IS LIKELY TO PUDDLE







WARRANTY IS VOID IF ANY OF THE ABOVE ARE VIOLATED

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