FLEXFIRELEDs

PRODUCT DATA SHEET

ColorBright™
Color Changing
RGB 300 Series

15 Year Warranty

RoHS COMPLIANT

CE

c(UL)us LISTED
(LOW VOLTAGE LUMINAIRE)
E362522

Description

The ColorBright™ Color Changing 300 LED strip light has double the amount of bright LEDs than the RGB 150 series. They are made as a reel of linear color changing LED lights mounted on a flexible strip of printed circuit board (PCB) with a strong adhesive backing. With an RGB controller, these strips can change to nearly any color combination you could think of, offering a wide range of creative options.

These strips have 300 LEDs per reel, which means they deliver double the brightness of the 150 RGB LEDs. Color changing RGB 300 LED strip lights are perfect for applications that require not only adjustable color settings, but also high brightness lighting.

Product Features

- Highest Brightness RGB LED Chips
- Fully dimmable and color controllable
- Highest quality components and premium packaged 5050 LEDs
- Single BIN LED selection to ensure color consistency (3-Step MacAdam)
- Thermally Resistant 3M VHB 4930 adhesive for long lasting bond
- 120° Beam Angle
- Only 3/8" (10mm) strip width

- Short LED pitch of 3/4" (17mm)
- 12V or 24V DC Input Options
- Segment length of 2" (4" for 24V)
- Can be cut every 3 LEDs (6 LEDs for 24V)
- 18 LEDs / Foot (60 / Meter)
- Thick double layer 2 oz copper PCB for excellent thermal management
- Operating Temperature -4°F to +104°F (-20°C to 40°C)

Product Specific Specifications

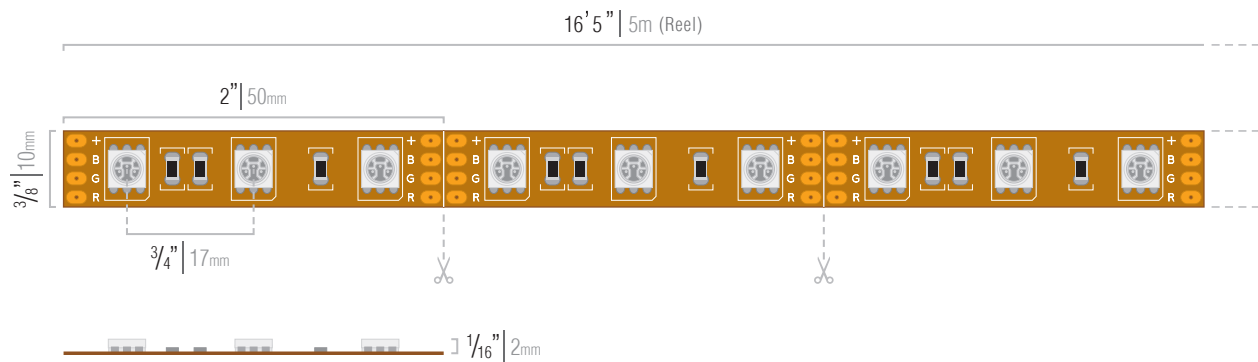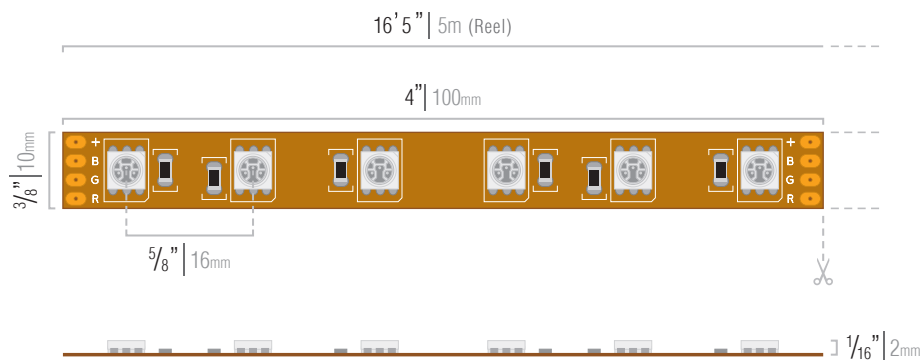| Product SKU	LED Chips per foot (Meter)	Voltage Input	Watts / foot (Meter)	Lumen / foot (Meter)	Color Wavelengths (Nanometer)	Max. Run Length in Series
CB-RGB2-12V	18 LEDs/Foot (60/Meter)	12V DC	4.4 W/ft (14.4 W/m)	R: 20LM (65/m) G: 92LM (300/m) B: 19LM (60/m)	R: 617-627 nm G: 515-525 nm B: 464-474 nm	16' 5" (5 meters)
CB-RGB2-24V	18 LEDs/Foot (60/Meter)	24V DC	4.4 W/ft (14.4 W/m)	R: 20LM (65/m) G: 92LM (300/m) B: 19LM (60/m)	R: 617-627 nm G: 515-525 nm B: 464-474 nm	32' 10" (10 meters)

Ordering Code

INDOOR

Brand	Color	Voltage	Length
CB - ColorBright™	**RGB2**	**12V**	**01 FT** - 01 ft Reel
		24V	**04 FT** - 04 ft Reel
			08 FT - 08 ft Reel
			16 FT - 16 ft Reel

Dimensions

12V

16'5" | 5m (Reel)

2" | 50mm

3/8" | 10mm

3/4" | 17mm

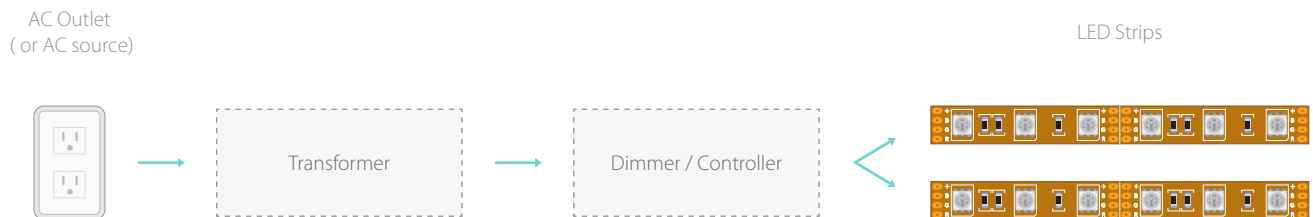1/16" | 2mm

24V

16'5" | 5m (Reel)

4" | 100mm

3/8" | 10mm

5/8" | 16mm

1/16" | 2mm

Example Installation and Layout

IN SERIES

AC Outlet
(or AC source)

LED Strip

Transformer

Dimmer / Controller

IN PARALLEL

AC Outlet
(or AC source)
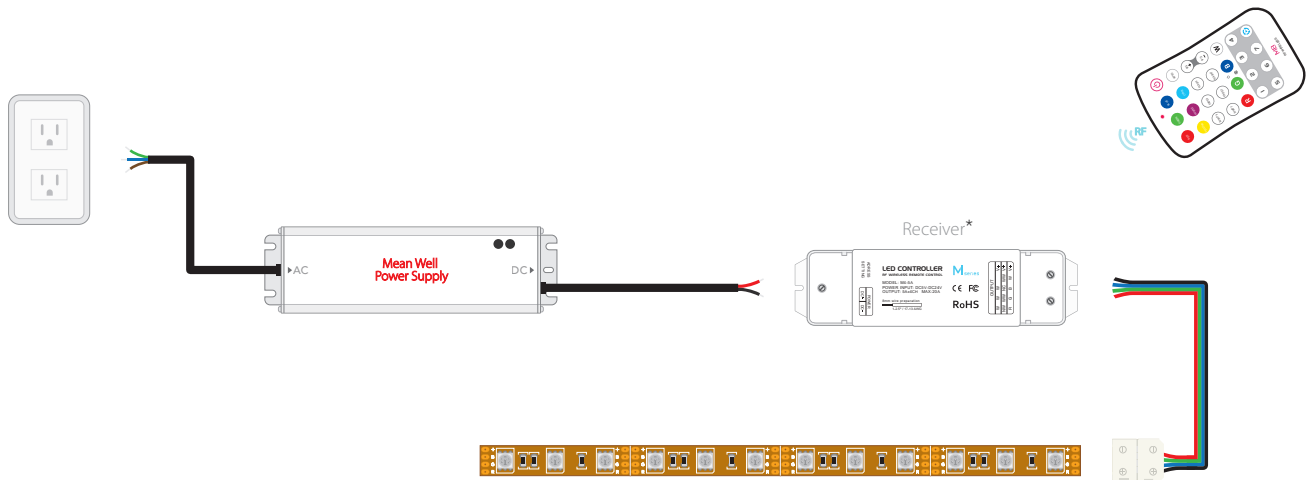
LED Strips

Transformer
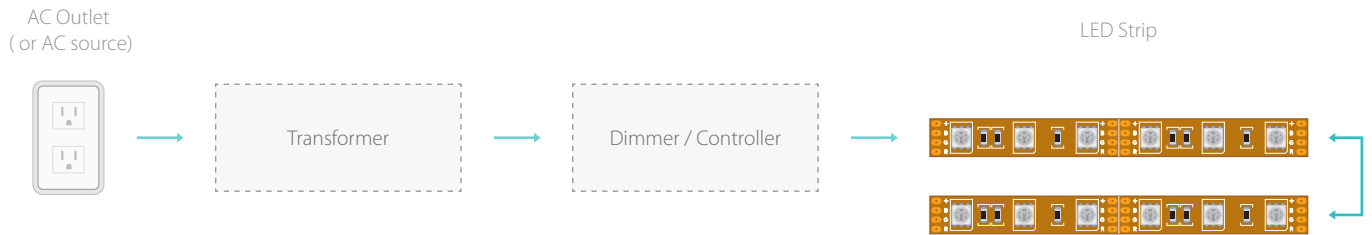
Dimmer / Controller

Dimming Options

In-Line Dimming

Receiver*

* The receiver and controller may differ from the one shown.

Strip Light Connectors

SKU	Description	Wire Gauge	Amp Limit**	Mockup
RGB-C1*	Attaches LED strip directly to a Power Supply/Driver, low voltage control or DC source.	22 AWG		
RGB-C2*	Attaches two sections of LED strip together. Wire lead allows for turns around tight corners.	22 AWG	5 Amps	
RGB-C3*	Attaches two sections of LED strip together in a continuous run.	-		

* Calculate max length of LED strip to follow the solderless connector based on an amperage draw of 0.37 amps per foot (1.20 A/m) at 12 volts, or at 24 volts use 0.18 A/ft (0.60 A/m).

** The max continuous run of the RGB 300 LED strip is 16 feet (5 meters) at 12V. Be sure no more than 5 amps is drawn after any solderless connector.
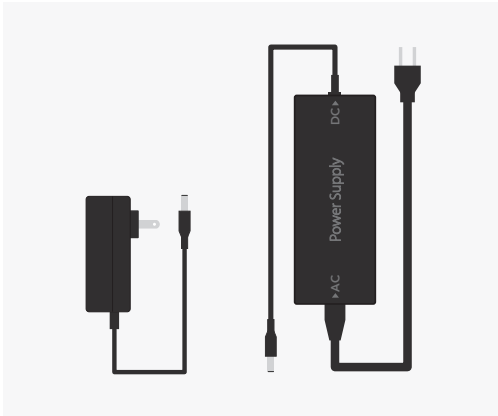
Solderless Connection Guide
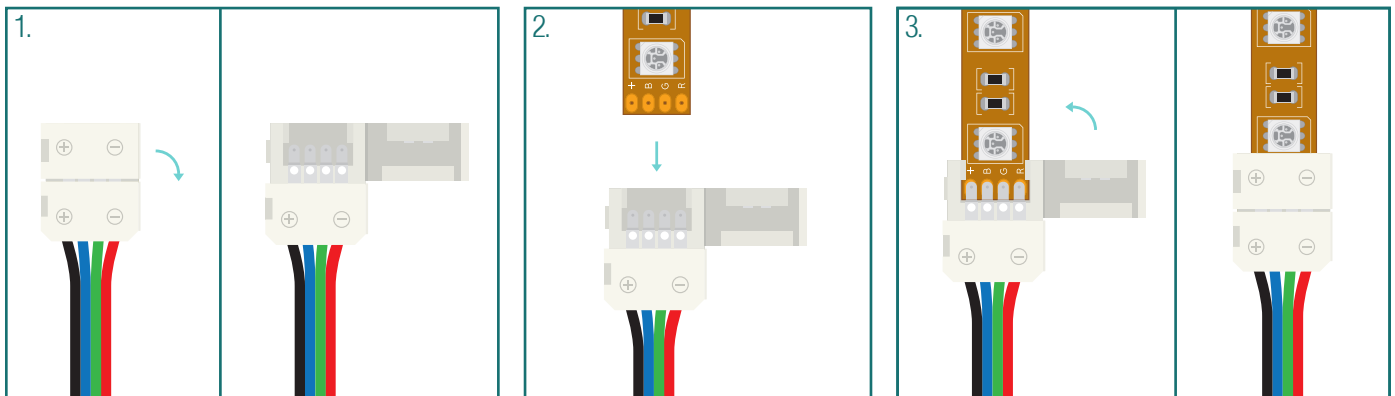
1. Open the RGB strip connector. *See Diagram 1*

2. Take a look at the cut mark on the strip and you will see +, B, G, R. Match the colors on the wires as follows: Black to positive, Blue to B, Green to G and R to red. *See Diagram 2*

3. Insert the end of the strip under the 4 metal pins on the connector, make sure the pins are making contact on the copper contact points and finally close the lid on the connector. *See Diagram 4*

   NOTE: Soldering is the preferred method. If you need further assistance, please download our Solderless Connector Installation Guide from our website

Compatible Drivers (24V only)
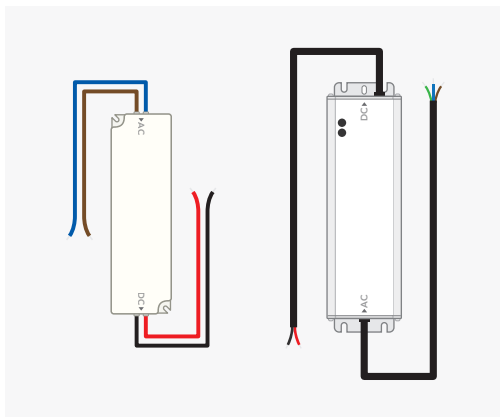
Wall Mounted Power Supply / Desktop Power Supply

LED Strip Length	SKU
1 - 9 ft	24V-WMPS-1
10 - 22 ft	24V-DPS-2.5
23 - 35 ft	24V-DPS-4
36 - 44 ft	24V-DPS-5

Mean Well HLG

LED Strip Length	SKU
1 - 7 ft	HLG-40H-24A
8 - 12 ft	HLG-60H-24A
13 - 19 ft	HLG-100H-24A
20 - 24 ft	HLG-120H-24A
25 - 36 ft	HLG-185H-24A
37 - 48 ft	HLG-240H-24A
49 - 67 ft	HLG-320H-24A
68 - 120 ft	HLG-600H-24A

Mean Well LPV

LED Strip Length	SKU
1 - 4 ft	LPV-20-24
5 - 7 ft	LPV-35-24
8 - 12 ft	LPV-60-24

Compatible Aluminum Extrusions

▶ KLUS GIP Anodized Extrusion   (SKU: KL-B4574ANODA-1m)

Covers
- G-L Frosted Cover (SKU: KL-00413-1m)

End Caps
- GIP - L End Cap without Wire Hole (SKU: KL-00306)

Mounting Accessories
- GP Surface Spring (SKU: KL-00293)
  • minimum surface thickness 10mm (3/8")
- Mounting Bracket (SKU: KL-24143)

▶ GIZA Anodized Extrusion   (SKU: KL-B5556ANODA-1m)

Covers
- HS 22 Clear Cover (SKU: KL-17022-1m)
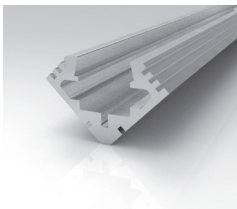- HS 22 Frosted Cover (SKU: KL-17011-1m)

End Caps
- GIZA End Cap without Wire Hole (SKU: KL-24007)

Mounting Accessories
- GP Surface Spring (SKU: KL-00293)
  • minimum surface thickness 10mm (3/8")
- Mounting Bracket (SKU: KL-24143)

▶ 45-ALU Anodized Extrusion   (SKU: KL-B4023ANODA-1m)

Covers
- HS Clear Cover (SKU: KL-1370-1m)
- HS Frosted Cover (SKU: KL-1369-1m)
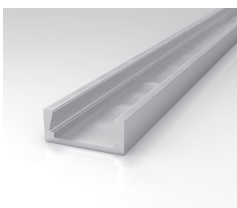- LIGER Frosted Cover (SKU: KL-17031-1m)

End Caps
- 45-ALU End Cap without Wire Hole (SKU: KL-1383)
- 45-ALU End Cap with Wire Hole (SKU: KL-1440)

Mounting Accessories
- Zinc Mounting Bracket (SKU: KL-1399)
  NOTE: All solderless connectors do not fit inside this
        aluminum extrusion.

▶ KLUS MICRO-ALU Anodized Extrusion   (KL-B1888ANODA-1m)

Covers
- HS Clear Cover (SKU: KL-1370-1m)
- HS Frosted Cover (SKU: KL-1369-1m)
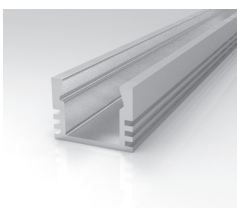- LIGER Frosted Cover (SKU: KL-17031-1m)

End Caps
- MICRO-ALU End Cap without Wire Hole (SKU: KL-1059)
- MICRO-ALU End Cap with Wire Hole (SKU: KL-1060)

Mounting Accessories
- Zinc Mounting Bracket (SKU: KL-1072)
  NOTE: All solderless connectors do not fit inside this
        aluminum extrusion.

▶ KLUS PDS4-ALU Anodized Extrusion   (KL-B1718ANODA-1m)

Covers
- HS Clear Cover (SKU: KL-1370-1m)
- HS Frosted Cover (SKU: KL-1369-1m)
- LIGER Frosted Cover (SKU: KL-17031-1m)

End Caps
- PDS4-ALU End Cap without Wire Hole (SKU: KL-1055)
- PDS4-ALU End Cap with Wire Hole (SKU: KL-1057)

Mounting Accessories
- Zinc Mounting Bracket (SKU: KL-1072)
  NOTE: All solderless connectors do not fit inside this
        aluminum extrusion.

Safety And Disclosures

1. Installation must be in accordance with local and national electrical code regulations.

2. To ensure safety and correct installation, our strips are intended to be installed by a qualified, licensed electrician.

3. Only install with a Class 2 DC Constant Voltage LED driver to meet UL requirements.

4. Do not install in environment where excessive heat may exist.

5. LED strip lights must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.

6. Do not install indoor LED tape light products in outdoor / wet location environments. Only use copper wiring. Use wires rated for at least 176°F (80°C) and certified for use with external connection of electrical equipment.

7. Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.

8. Make sure the appropriate gauge wire is installed between driver, LEDs, and any dimmers. When choosing wire, calculate voltage drop, maximum amperage rating, and the location ratings on the wire. Improper wire selection and installation could overheat wires, and cause fire.

9. Do not modify product beyond instructions or warranty will be void.

10. We reserve the right to modify and improve the design of our fixtures without prior notice. Although we try our best to order the same colors every time, due to changes in technology and phosphors over time, we cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.

Warranty Information

Limited Warranty

This product has a 15 year limited warranty from the date of shipment. This warranty only includes the main product outlined in this specification sheet and does not include the additional accessories that are used as a reference. Complete warranty details for fixtures and additional accessories are available at https://www.flexfireleds.com/warranties/ within the Policies section. For warranty related questions please contact product support team at (support@flexfireleds.com).

Consumer's Acknowledgment

Flexfire LEDs, Inc. stands behind its products when they are used properly and according to our specifications. When you purchase our products, you are agreeing to the terms and conditions outlined in our warranty section. We try our best to make recommendations, but the burden of proper installation, design, and maintenance relies on the purchaser.

This limited warranty does not include product failures that are the result of:

Not using a voltage regulated power supply to connect the LED product or controls; Connecting LED products to the wrong output voltage; Improper connection of power supplies, LED products, or controls; Connecting LED products or controls directly to any AC power source if they are stated for DC only input; Connecting power supplies backwards to an AC power source; Products used in an inappropriate location or in environmental conditions (temperature, humidity, moisture, etc.) outside the normal specified range; Water damage to products not specifically sold as waterproof products; Electrical power surges and spikes; Damage from hail, flooding, tornado, fire, wind, earthquake, lightning, electrical storm, or any other natural disasters or "force majeure" incidences; Damage caused by a vehicle or other accident; Damage caused when transporting the item; Damage to any products that were modified by the user, used for purposes other than as intended or directed, or connected to LED systems or components not purchased from Flexfire LEDs; Products that have been subjected to misuse, mishandling, misapplication or accident. Products used in connection with any components, devices or systems other than those explicitly approved as compatible with Company's products and listed on Company's website. Excessive wear and tear and/or physical or accidental abuse, loss, or theft. Improper repairs or warranty services performed by someone other than Flexfire LEDs will void this warranty.