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## PCB Deco Color

The OrgaLED® PCB Deco LED strip (IP20) is a high quality, flexible LED strip equipped with 3M double sided tape. Thanks to its small dimensions the PCB LED strip is ideal for usage in small (indoor) spaces.

In addition to the Red, Green, Blue and Amber, the OrgaLED® PCB Deco LED strips are also available in white colors 2400K-6500K.

For the latest version of this datasheet, visit our website:

[www.organiclighting.com](http://www.organiclighting.com)

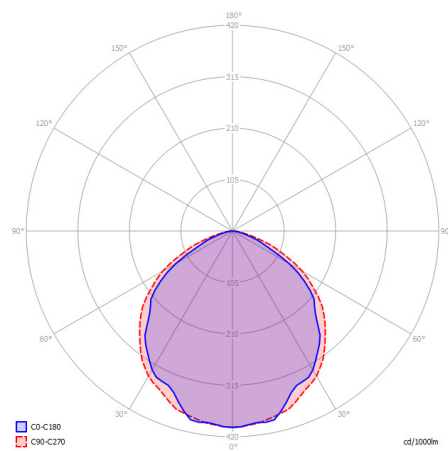
## Available Colors

- OrgaLED® PCB Deco Red
- OrgaLED® PCB Deco Green
- OrgaLED® PCB Deco Blue
- OrgaLED® PCB Deco Amber

## Features

- Made in USA/EU
- Very flexible (bend radius > 0.79")
- Ideal for small indoor spaces
- Dimmable
- Effective heat dissipation
- Excellent lumen/ Watt ratio
- Binning ± 50K
- Available in long lengths
- Available in various colors
- Extensive range of accessories
- Plug & Play system

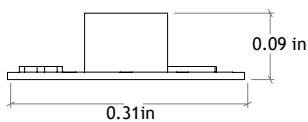
## Symmetric Diagram



## Product Codes & Characteristics

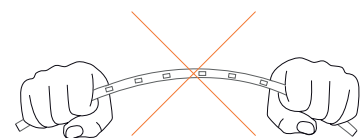
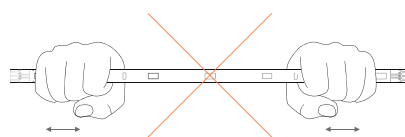
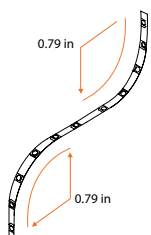
	PCB Deco Red	PCB Deco Green	PCB Deco Blue	PCB Deco Amber
Product code [m]	012182	012183	012184	012181
Power (24 V DC)	1.3 W/ft	0.7 W/ft	0.5 W/ft	1.3 W/ft
Power (25 V DC)	1.4 W/ft	0.8 W/ft	0.5 W/ft	1.4 W/ft
CRI	> 80	> 80	> 80	> 80
Luminous flux	16 lm/ft	41 lm/ft	8 lm/ft	12 lm/ft
Luminous efficiency	12 lm/W	59 lm/W	16 lm/W	9 lm/W
Wave length	617 nm	469 nm	525 nm	587 nm
Spool length	Max. 164 ft			
Section length	7.9 in			
LED	Top LED® long life			
Number of LEDs	7 per section / 10.6 per ft			
Max. connection length	65.6 ft			
Operation voltage	24 V DC			
Max. operation voltage	25 V DC			
Beam angle	120°			
Dimensions	0.31 x 0.09 in			
Dimmable	PWM dimming, 0-10V dimming			
Binning	± 50K			
Weight	0.1 oz/ft			
Expected lifetime	B50/L70 > 50,000 hours @ 104 °F			
Degree of protection (IP)	IP20			
Storage temperature	-22 °F - 185 °F			
Operation temperature	-22 °F - 131 °F <sup>1</sup>			
Minimal bending radius	0.79 in			

Max. connection length between -4 °F and -22 °F is 46 ft

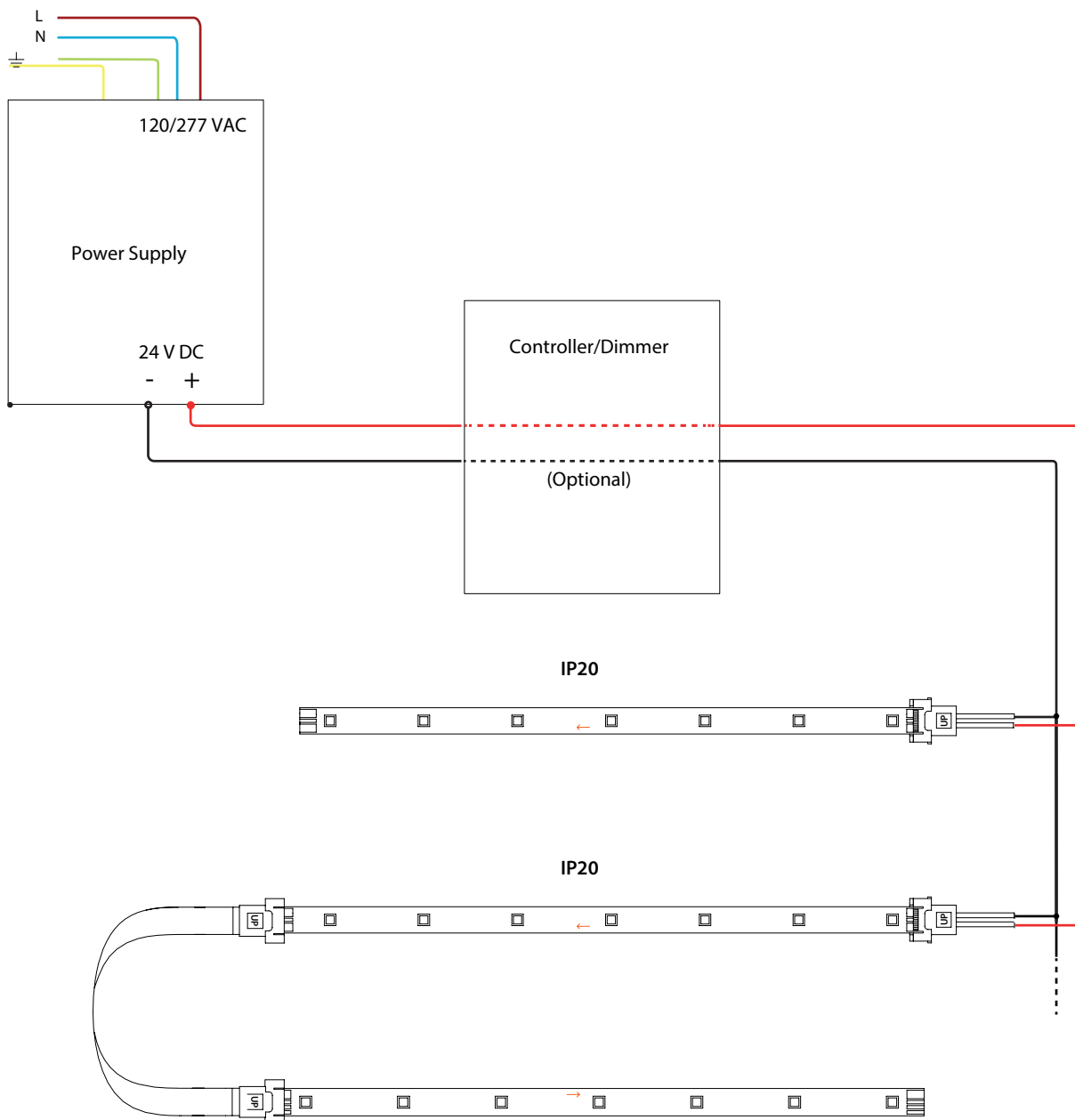


## Bending Radius

Maximum bending radius is 0.79 in. Solely bend up or downward. Do not compress, stretch or bend the LED strip.



## Power & Connection Diagram



## Power Supply - 24V DC

To calculate the power consumption of a single length of LED strip, use the equation below.

$$P_{STRIP} = W_{WATTS} \times X_{LENGTH} \times 110\%$$

- $P_{STRIP}$  Calculated power consumption of one LED strip in Watt
- $W_{WATTS}$  Typical power consumption in Watt per foot of the selected LED strip  
This value can be found under 'Product characteristics' on page 2
- $X_{LENGTH}$  Length of the connected LED strip in feet
- 110% Safety margin to buffer differences over all production batches

## Cable Selection

The OrgaLED® LED strips need a minimum voltage at the beginning of the LED strip to function according to the specifications. The table below gives an indication of the maximum cable length based on the cable thickness and power supply voltage. The connection between the cable and LED strip is with a cable length of 3.28 ft.

In case the required length is larger than the length mentioned in this table, the supply voltage is different or if a detailed wire plan with branches is planned, please contact your distributor for a detailed cable calculation.

Wire Gauge	LED strip	Max. <b>cable x</b> length Red, Amber Deco		Max. <b>cable x</b> length Blue Deco		Max. <b>cable x</b> length Green Deco	
		@ 24 V DC	@ 25V DC	@ 24 V DC	@ 25V DC	@ 24 V DC	@ 25V DC
<b>20 AWG x 2</b>	3.3 ft	226.81 ft	439.36 ft	593.75 ft	1143.87 ft	402.39 ft	776.47 ft
	16.4 ft	41.98 ft	84.49 ft	115.36 ft	225.4 ft	77.08 ft	151.9 ft
	32.8 ft	18.86 ft	40.11 ft	55.56 ft	110.57 ft	36.44 ft	73.83 ft
	65.6 ft	7.31 ft	17.94 ft	25.68 ft	53.17 ft	16.1 ft	34.8 ft
<b>18 AWG x 2</b>	3.3 ft	341.19 ft	660.92 ft	893.14 ft	1720.69 ft	605.29 ft	1168.04 ft
	16.4 ft	63.14 ft	127.1 ft	173.54 ft	335.77 ft	115.98 ft	228.52 ft
	32.8 ft	28.4 ft	60.38 ft	83.61 ft	166.36 ft	54.81 ft	111.09 ft
	65.6 ft	11.02 ft	27.03 ft	38.64 ft	80 ft	24.24 ft	52.38 ft
<b>16 AWG x 2</b>	3.3 ft	682.37 ft	1321.84 ft	1786.29 ft	2441.38 ft	1210.62 ft	2336.08 ft
	16.4 ft	126.31 ft	254.2 ft	347.12 ft	678.11 ft	231.96 ft	457.07 ft
	32.8 ft	56.81 ft	120.77 ft	167.21 ft	332.72 ft	109.65 ft	222.19 ft
	65.6 ft	22.07 ft	54.05 ft	77.28 ft	160 ft	48.48 ft	104.76 ft
<b>14 AWG x 2</b>	3.3 ft	1135.7 ft	2199.93 ft	2972.93 ft	5727.47 ft	2014.84 ft	3887.92 ft
	16.4 ft	210.25 ft	423.09 ft	577.71 ft	1128.62 ft	386.09 ft	760.7 ft
	32.8 ft	94.56 ft	201 ft	278.31 ft	553.76 ft	182.5 ft	369.79 ft
	65.6 ft	41.44 ft	89.94 ft	128.61 ft	266.34 ft	80.69 ft	174.33 ft



## Symbols

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UL is a world leader in product safety testing and certification. UL sets standards and tests products to make sure they meet standards.



The ETL Listed mark indicates that your product has been tested by Intertek and found in compliance with accepted UL standards.



Electro Static Discharge (ESD) sensitive device, apply standard ESD precautions when handling the product.



Manufacturer's declaration that the product meets the applicable EC directives.



Suitable for mounting on all surfaces and suitable to cover with insulating material.



Restriction of Hazardous Substances (RoHS): product complies with the RoHS directive and each homogeneous material does not exceed the limits for the materials mentioned under the RoHS directive (Pb, Hg, Cd, Cr6+, PBB and PBDE).



Protected against ingress of solid foreign objects  $\geq 0.49$  inches. Not-protected against ingress of water.



Bending of the LED strip is possible with a radius of  $\geq 0.79$  inches in the specified direction.



Electrical appliance class III: this product is designed to be supplied from an extra-low voltage ( $\leq 60.0$  V DC or  $\leq 42.4$  V AC).



System guarantee of 5 years when the complete system consist of OrgaLED® products with the 5 year system warranty logo.

## Disclaimer

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