What to consider when buying LED strip lights?

Trying to shop for good quality LED strip is an effort using a patchwork of information. As such, I would like to explain a few terms you may need when buying LED strip lights.

SMD

SMD is a type of mounting – “Surface Mounted Diode" (all the strips are SMD type but for bulbs or other lights you can also see COB what basically means Chip On Board); The number after SMD tells you the actual size of the diode, and this determines how much bright the light is. For instance, 3528 means 3.5mm*2.8mm. Our LED strip lights are available in 3528/1210, 2835, 2216, 3014, 5050, 5060, 5630, 5730.

Choosing among 3528 and 5050, 5730 is really your personal preference. Just think about where you want to use your strip lights and how bright you want them to be. For example, if you’re installing LED strip lights under kitchen cabinets, you might want to go for 5050. Because this will ensure the light is bright enough for an effective task light for preparation areas and worktops.

On the other hand, in the living room or bathroom, you want to create a calmer ambient light to relax in. So you might be best choosing a 3528 strip light to create a softer look.

LED brand

We use world-class LED chip OSRAM, EPISTAR, SAMSUNG. The most common is EPISTAR LED chip. High CRI Epistar honest 5 years warranty, CRI>90, single Bin selected; Premium Epistar honest 3 years warranty; standard Epistar honest 2 years warranty.

BIN

The best BIN are closest to black body locus, LED with these BIN can achieve the purest white color. There will be around 100 LEDs in specific BIN among 1000LEDS with mess BINs. High CRI Epistar we select the best specific BIN, can promise color consistency, which means you will receive the same bright and color LED strip light for every batch orders you place to us.

CRI

Color rendering index (CRI) refers to the color reality when the object is irradiated by light source. CRI is measured on a scale from 0-100. The higher CRI, the more beautiful object under the strip light look. A CRI of 80+ is the industry-standard for

most applications, while a CRI of 90+ tends to be necessary for situations that need attractive color, such as showcase display, cosmetic store, or clothing store, can meet customers' aesthetic expectation of the displaying goods. A CRI of 90+ & R9>0 or CRI 95+&R9>80 are designed for situation that need color accuracy, such as photography lighting, movie industry, atelier lighting, etc.

Number of LEDs

The number of LEDs per meter is also an important point when choosing a LED strip as it affects the brightness (lumens) and light pattern of a strip. Our LED strips are available in variations: 30 LEDs/m, 60 LEDs/m, 120LEDs/m, 180 LEDs/m, 240LEDs/m, 300LEDs/m, 700LEDs/m etc. For instance, 60 is a number of diodes per meter (300 LEDs per 5m).

Voltage

LED strips are mostly low voltage products so it basically means that you cannot just plug them into your wall socket as it will blow the LEDs. To run your strip you will need a transformer to lower the voltage to 12V or 24V.

Wattage

Wattage will influence light brightness. Usual wattage are 2.4W/M, 4.8W/M, 9.6W/M, 14.4W/M, 19.2W/m, 24W/M etc.

Luminous flux

Lumen is the measurement of brightness besides watts, the higher the number is, the brighter the LED strip light is.

Color

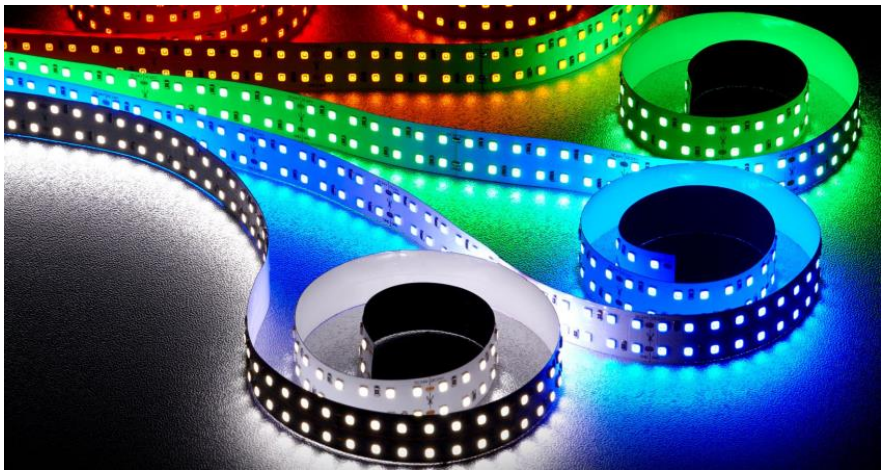
Our LED strips are available in R/G/B/W/Y (single color), VW (white with adjustable color temperature) RGB (multicolor), RGBW (multicolor +white), RGBVW (multicolor +adjustable color temperature), pixel RGB, pixel RGBW.

R/G/B/W/Y Strip utilizes only one color of LED per strip to produce fixed accent lighting.

RGB strip utilizes red, green and blue LEDs to change between a wide spectrum of color using an RGB Remote Controller, can create effect such as fading, jumping, strobing.

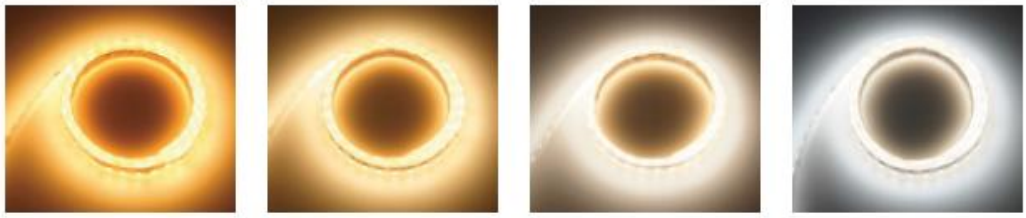
RGBW Strip: Features the same colored LEDs as RGB Strip but with the addition of White LEDs for greater variety of color and brightness.

Pixel RGB strip, besides above function, can also create more effects such as flowing, chasing, trailing, floating, etc.



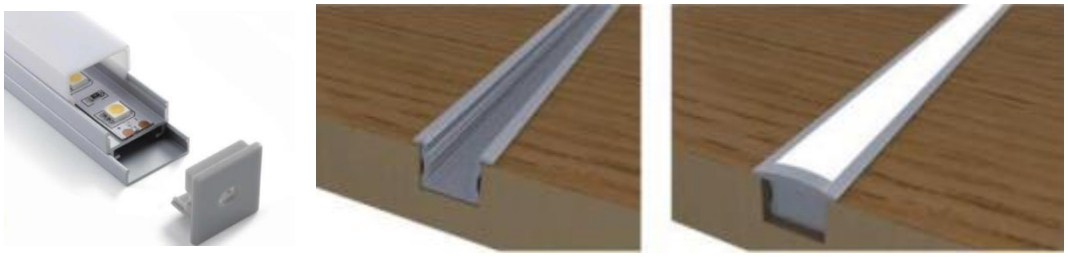
Color Temperature

The letter "K" that stands for Kelvin. The most commonly used LED strips with color temperature scale from 2700K to 6500K (as lower the number is as more yellow the light is, as higher the number is as more blue the light is), responding to ultra warm white, natural white, cold white. Warm white is suitable for bedroom, cold white is suitable for study room.



PCB Width

PCB width is one of the things to consider when buying an LED strip especially if you are planning to paste them into an aluminum profile. Common PCB width is 8mm, 10mm, 12mm, 15mm, 20mm, 30mm etc. PCB material we use FR4 PCB.



Cutting Section

An important advantage of LED strip is the ability to obtain almost any dimension. The circuit board is specially printed and can be shortened depending on the model every 25mm, 50mm, 100mm, etc. So you can customize the length according to your need.

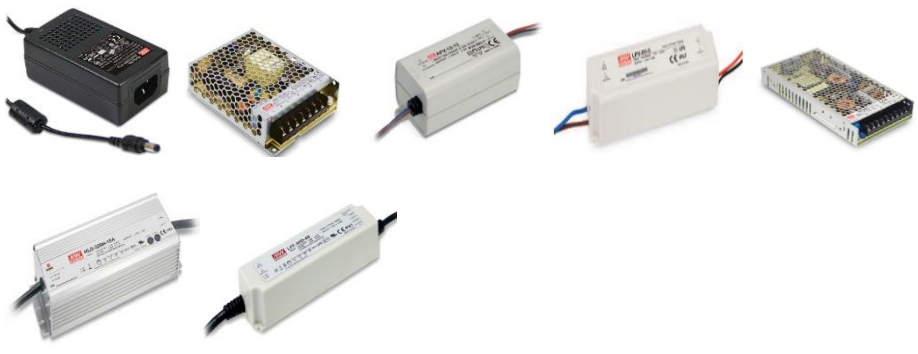
Connectors and wire

Non-waterproof LED strip light solder 20cm 20AWG free bare wire with(or without) quick connector on one end(two end if you need), or solder 20cm free wire with DC connector on one end, or free pin connector or other. See pictures below

Power Supply:

The power supply, also known as a driver or transformer, plugs directly into the Strip Lights.The power supply is then plugged or wired into the mains electricity. It's the po wer supply's job to convert (transform) the mains voltage to 12V.

When buying an LED power supply, make sure it has a bigger wattage than your strip! For example, if your LED strip requires 72W (5m 5060 14.4W/M RGB LED strip consumes 72W), get at least 90W power supply. This will let the power supply to run cool and extend its lifespan and also let the LED strip run at full brightness. (power supply wattage=max wattage per meter * length*1.3)



Dimmer

Dimmers are available for single-color strip lights. The dimmer is connected inline between the power supply and strip light. The dimmer can also be used as an on/off function.

Controller

The controller is connected inline between the power supply and strip light. There are also may things that you need to consider before buying LED strip controller, e.g. type of the LED strip (CCT, RGB, RGBW, pixel RGB etc.), the power consumption of your LED strip, type of connections or how many zones you want to control.

Amplifier

The amplifier is perfect for long-run RGB or RGBW strip light installs. The amplifier takes the signal off the first run of RGB or RGBW lights and amplifies it to the next run. You need to connect the proper sized LED power supply to the amplifier in order to make it run correctly.

The amplifier is needed for because of voltage drop. Voltage drop means after longer lengths of LED strip light(more than 5m), the current drops off and makes the strips dimmer at the end of the run than the beginning.

Aluminum profile

LED aluminum profiles are the future of modernistic houses. With the help of cover, aluminum profiles can conceal and blend with anything that is being lit. This makes it possible to achieve a stylish lighting appeal. No doubt, it is best suited for smart interior designers who value the importance of wowing their clients and having their services recommended.

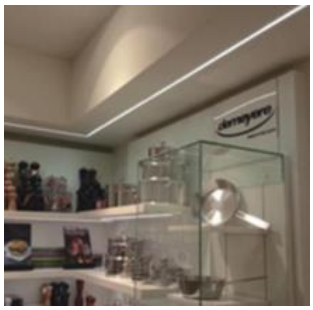
One important usage of aluminum profiles is their protective features. Made with strong, aluminum material, LED aluminum profile shield strip lights from moisture. It protects LED strip lights from potential damage, especially in areas with high traffic.

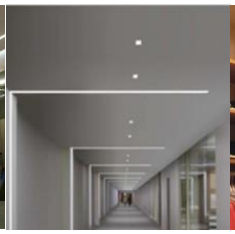
Our LED aluminum profile are available in recessed mounting, surface mounting, corner mounting, and hanging mounting in silver white color (standard color). Covers are milky cover, semi-transparent cover, transparent cover. Milky cover better diffuses the light and blurs the dark spots of a LED strip on the surface of the lens. Transparent covers allow most light to penetrate through, suitable for outdoor use. We can assemble LED strip light into aluminum profile order from us.

Application:

Bedside furniture lighting in bedroom, wardrobe LED strip light, TV backlight, ceiling light, mirror back light in bathroom, under cabinet light in kitchen, shelf light, outside of building, etc.





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