## **Technical Information of EL Wire**

Flexible Neon Wire, EL Wire, also called Electroluminescent (EL) Wire is the new generation product in global lighting and display industry. Wrapped by colorful plastic tube on its surface, it appears similar to common phone wire, emitting light along its entire length but without any heat radiation. It consumes much lower power, just 50-70% of LED lamp, 20-40%, rope lamp and 1-10% neon light. Funded by professional Institute of Chinese Academy of Science, it open a new era in lighting and display field featured with energy saving, environmental protection and health.

#### **Application Field:**

- Indoor and outdoor advertisement, picture and logo, shop window, door, furniture, wall, roof, etc.
- Car, boat and other vehicles decoration: inside and outside decoration, number display.
- Safety sign and guidance: stair, passage, doorplate, temporary marks.
- toy, art and handcraft, sport article, garment, electrical appliance

#### Characteristic:

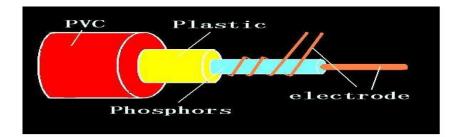
1. Homogeneous light along the entire length with wide range of vivid color, great and comfortable to be seen especially in darkness for both human being and animal, also no influence on growth of plants. It's clear and safe to be observed in distance at night when it's been equipped on car door outline. It also can beauty the city night scene when applied on tree, grass etc.

2. With characteristic of energy saving, environmental protection as well as safety, it has low power consumption, applied to voltage from 3V to 220V, also no heat radiation, can save national electric power sources greatly. As per present suitable application in indoor or outdoor low building, it's able to save 15% darkness decoration power in cities. And decrease environmental temperature efficiently. It will not cause any environmental pollution whatever usage or be abandoned, especially can avoid serious lighting pollution in big cities. Due to its low working current, it has no harm to human body.

3. Its flexible, can be bent, knotted, cut, stretched, spliced etc. but lighting effect will not be influenced. Flexibility of EL wire is similar to common phone wire, folding angle reach more than 15 degree, maximum bending achieve 360 degree, and can be bent or stretched repeatedly. The length of EL wire is cut according to customer's application but the homogenous lighting effect remains still the same.

4.it come into continuous lighting length, featured in 360 degree multi color lighting, be made single color or combination of different colors on one single wire, animation effect is achieved by circuit control. Single luminescence core or more luminescence cores are able to be combined to improve the brightness. Diameter arrange from 0.7 to 20mm or even bigger.

5. To be fixed on decoration surface with transparent adhesive tape, glue, clip, thread nail, or plastic card etc. decoration surface include glass, display window, furniture, window, wall etc. It's easy to be applied, no need of any professional instruct

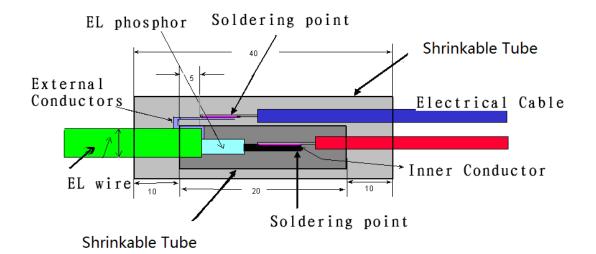


6. Flat EL wire can also to be sewed on cloth, leather etc

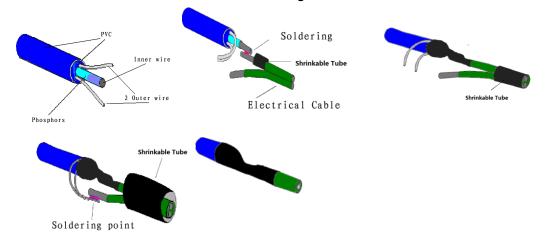
#### **Technical information:**

Operating Voltage Range: 20~220V optimum operating voltage: 120V
Frequency of Operation: 50~5000Hz OWF: 1500-2000Hz
Direct capacitance: 6nf/m (20°C, RH< 80%)</li>
Glow Brightness: Voltage: 120V, Frequency: 200Hz~2000Hz: 30cd/m2~126 cd/m2
Consumed Power: Voltage: 120V, Frequency: 200Hz~2000Hz: 108mw/m~1032mw/m
Working Life: Voltage: 100V, Frequency: 400Hz, Normal Temperature and Humidity, Around 5000Hrs
Continous Working Temperature/Relative Humidity: -10°C~+60°C; RH< 90%</li>
Storage Temperature/ Relative Humidity: -10°C~+60°C; RH< 65%</li>

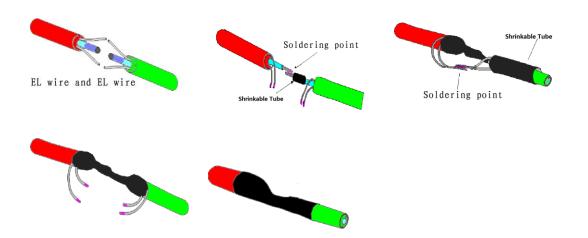
### EL Wire Assembling Instruction:



#### A. Connection between EL Wire and Connection Plug



B. Connection between EL Wire and EL Wire



# Kindly Reminder:

- 1. forbid to connect power supplier without its driver
- 2. The flash function control by driver.
- 3. Forbid to cut when connecting power. The electrode forbid to connect together, and should prevent it from water.
- 4. When making shape or connecting, do not to drag and bend emphatically.

5. The EL wire need match the suitable driver to work otherwise may break the wire and driver, even dangerous. The driver should operate in power properly. The driver forbid to work without connecting wire.

6. If the wire or driver is very hot, cut off power immediately, call the distributor.

- 7. keep far from tinder, causticity goods
- 8. install and connect with professional's guidance

# **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

SparkFun Electronics:

<u>COM-10196</u> <u>COM-10191</u> <u>COM-10192</u> <u>COM-10193</u> <u>COM-10194</u> <u>COM-10195</u> <u>COM-10197</u> <u>COM-10198</u> <u>COM-10198</u> <u>COM-10199</u> <u>COM-10200</u>