Super Silicone Light Series Installation Manual

For Keeping

atex

We will appreciate for your purchase of 'Super Silicone Light'. Please peruse this manual and install correctly and safely.

Ver.190912

Warning

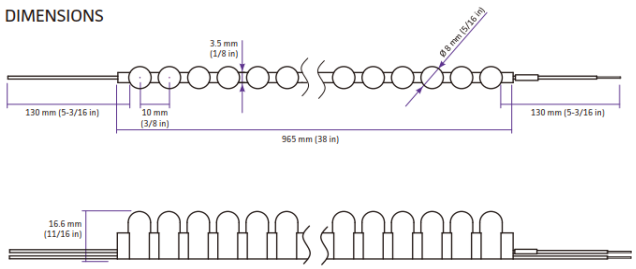
- ☐ Electrical works certificate is required to install and inspect this product.
- ☐ Input voltage is 12VDC only. Please do not apply other voltage such as AC100 to 230V. It will cause fume or fire.
- ☐ Do not put screws on the products directly. It may cause damages. Please refer to "How to Install"
- ☐ Please do not perform the following actions on the product. It will cause to decline in water resistant and installation performance.
  - ・ Excessive bending and twisting of the product.
  - ・ Dropping and strongly striking the product.
- ☐ It is dangerous working with wet hand. May cause electrical shock.
- ☐ This product is IP67 rated: This product should not be installed in a location where water is continuously splashed or underwater.
- ☐ The product can not be used the place such as "Atmosphere of corrosive gas and flammable gas" Because it may cause troubles. Please do not use the product in the following area.
  - ・Area with synthetic rubbers and cardboards.
  - ・Area with the material containing sulphur.
  - ・Area with atmosphere of sulphur such as hot springs.
- ☐ If there is any trouble with the product, please immediately turn off the power and contact the dealer or installer.

Precautions

- ☐ Please perform installation or removal, after the switch must be turned off.
- ☐ Please be careful that eyes might be hurt when you look straight at light emitting part.
- ☐ The temperature rise of the product is influenced with the capacity and the distance from housing. Ambient temperatures must remain the product specification.
- ☐ Please be careful about static electricity. It will damage LED's.
- ☐ The product is horizontal bending type. Please do not bend the product toward vertical direction. It may cause the failure.
- ☐ Please note that there is some variation in color among LED's.

Specification

Dimension



Product Specification

Product Name		Super Silicone Light				
Product No.		SP10-96C1#-**				
#-**		W-11	L-11	R-01	B-11	
Color Temperature		6000K	2800K	Red	Blue	
Input(Working) Voltage		DC12V Ⅲ				
Power Consumption		6 W / m				
Operating Temperature		-10 ~ +60℃				
Environment		Interior / Exterior				
Cutting points	Red	40mm (4 LED) * Customized length order available				
	Others	30mm (3 LED) * Customized length order available				
Dimension		W 8×H16.6 ×L965 mm				
Weight		100 g / m				
Bending Radius		45°horizontal. 10°vertical				
LED Pitch		10 mm				

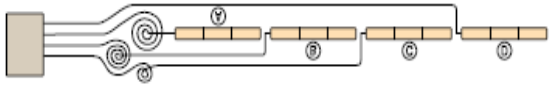
Accessories

Product Name	Product No,	Remarks
AL Rigid C Channel	FAS00-01S	Straight line installations / L=1000mm
AL Flexible C Channel	FAC10-01S	Flexible line installations / L=1000mm
AL Rigid F Channel	FAS00-03	Straight line installations / L=1000mm
AL Flexible F Channel	FAC20-05S	Flexible line installations / L=1000mm
Fixing Spring	FAB00-01	7 pieces per meter.
Spring Bracket Tool	FAB00-02	Spring insertion and securing tool.

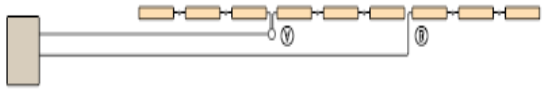
How to wire

In order to reduce the variation in brightness due to the voltage drop, please perform the following wiring.

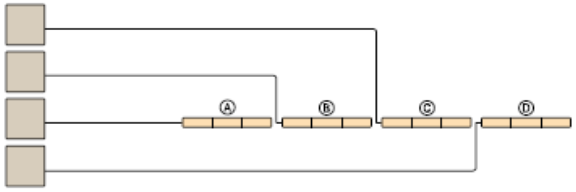
1 Wireing lengths must the same



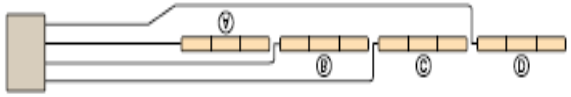
2 To equalize the voltage drop by distance and amount of currency



3 Please use power supplies as many as possible



4 Enlarge the wire size in order of A to B to C to D.



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Note for Installation

☐ Select Power Supply

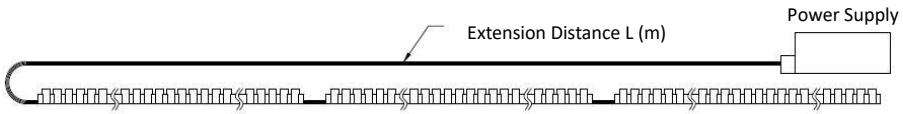
For power supply, please choose proper capacity of DC12V output according to total power consumption of the super silicone light

In case of 50 units of standard (96 balls), Power consumption is 50 X 6 W = 300W
Therefore, it will requires output power of 300W or more of power supply.

☐ Prepare lead wire for secondary (Calculation of Voltage drop)

Total wire length is 10m long from the power supply to end of silicone light when using 1.25sq wire.
Further extension, secondary side wire is need so as to maintain voltage drop of less than 1V at silicone light.

A simple equation for voltage drop to silicone light connected in (1 to 3) series



Number of series-connected silicon light n (unit) MA X 3 units

VDROP = Ln p (V) L : Wire Length (m), n : Number of silicone light (1 to 3), P : Resistance of wire conductor

Example : Extend up to 20m to power supply using wire 1.25sq from 3 silicone lights connected in series.
VDROP = 20 X 3 X 0.0147 = 0.9V
Voltage drop OK, fit less than 1V
Prepare wire size 1.25sq 20m long

Please take note of the current capacity of the wire.
It depends on diameter of the conductor ,
heat-resistant grade of the wire, and etc.

Do check in advance the allowable current (A) permitted by the wire.

※ Please refer to also "how to avoid voltage drop" point of installation.

Reference : Resistance of Wire Conductor

VFF(VSF)0.5	0.0367
VFF(VSF)0.75	0.0244
VFF(VSF)1.25	0.0147
VFF(VSF)2.00	0.0095
VFF(VSF)3.50	0.0059
VFF(VSF)5.50	0.0033

☐ Optional Selection

Depending on environment, choose the optional accessories.
For more information, please visit the catalogue and home page.

How to Install

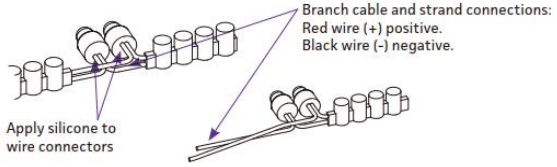
☐ Connection of Silicone lights

Connection of silicone Lights is made between the lead wires. Please connect the same color of lead wires by solder or crimp terminals. ※When soldered, please use waterproof heat-shrinkable tube contained adhesive to be insulated.

☐ Wiring the secondary of Power Supply

Please connect the secondary of power supply to Silicone light. Red lead wire is DC plus and Black lead wire is DC minus. Please do not misconnect.

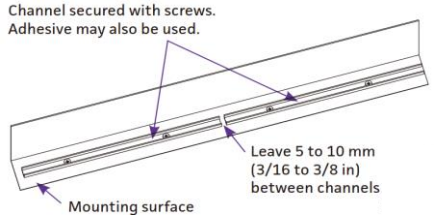
※ When used outdoors, If connected cabtyre cable is prepared in advance , it is relatively easy at installation.



☐ Channel fixing

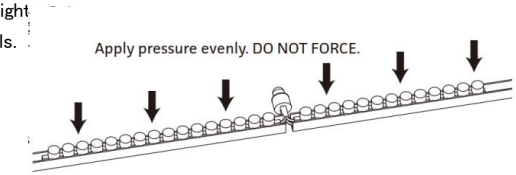
Adhere to the mounting surface of aluminum or resin channels, or fix it with screws.

※ In order to make it easier to fix, please use double-sided adhesive tape, or etc. for temporarily.



☐ Insert Silicone Light into channel

When inserted, apply the pressure to Silicone light evenly to insert into aluminum or resin channels. Please do not push the body of Silicone light into channel with excessive force at that time. You may be breaking the circuit.



☐ Fix by spring

Please use a tool (FAB00-02) to insert a fixing spring into channel.
You may scratch the body if screw driver or etc. is used.