Spectra-EL LED Modules

Instruction Manual for Illuminating Signage

Features

1. Energy Saving – high light efficiency, saving 1/3 more than fluorescent tubes
2. Green Energy – No hg or other pollutants; no noise; no electromagnetic radiation
3. Long lifespan
4. Low attenuation
5. High colour rendering index for accurate colour display
6. High agility to meet the demands of different sign shapes, sizes, brightness and spread of light

Specification

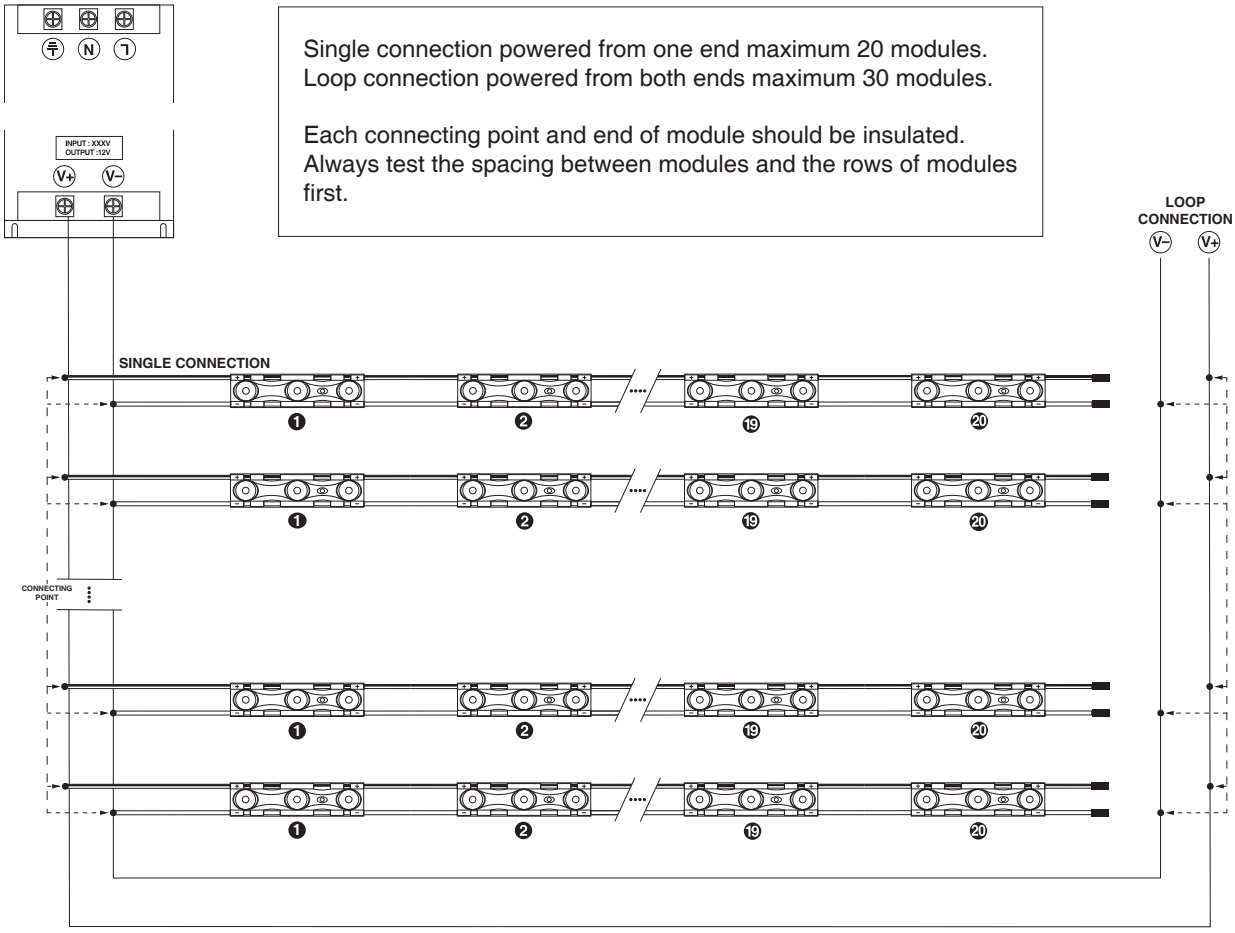
Usage	Single or double-sided sign tray
Special Features	Edge lit – install on the edge of the sign
Min Depth of return	26mm
Voltage	12V
Power	2.8W
Lumen per module	240lm
Beam angle	13/25
Modules per meter	5
Max series connection	20pcs / 30pcs if powered from both ends
Distance between modules	100mm
Dimensions	100*24*11
IP Grade	65
Warranty	5 years
Quantity per pack	20

Storage and Application

1. Not recommend for use under direct sun or water
2. Working temp -25…+55°C
3. Storage temp -25…+65°C
4. In locations with high humidity (e.g. bathrooms), the lightbox must be fully waterproofed to prevent water/moisture ingress
5. Box materials should meet fire retardant rules etc

Application Method

1. Ensure the surface accepting the modules is clean. Tear the base paper off the double-sided tape and stick the modules to the bottom of your sample board. Take care not to put any direct pressure on the led lamps.
2. For double sided sign tray, install on the edge of the sign
3. Connect the grey cable to the anode and the white cable to the cathode
4. Cover the board and connect the power to check the brightness and even spread of light
5. If the brightness and light distribution are okay, go to the next step. If not, adjust the distance between the modules until the desired effect is achieved.
6. According to the distance used on the sample board, complete sign letters.



Common Errors

Error	Reason	Solution
All modules have failed	No power	Connect power supply or check connection
	Short Circuit	Check circuit and reconnect power supply
	Damaged fuse	Check damage and replace fuse
Some of the modules have failed	Loss of power to some parts	Check power connections and circuit
	Damaged LED Lamp(s)	Replace individual modules
Low or non-uniform brightness	Overload	Increase power supply
	Too much voltage loss of power	Increase cable; adjust power supply
	Branch circuit over inline connection	Adjust inline connection number – For one side connected to the power cable, serial connection is less than 20pcs; for both sides connected to the power cable, serial connection is less than 30pcs. See cable connection diagram for further information.
Flickering modules	Bad connection to power supply	Investigate bad connection and make good
Some modules flickering	Bad connection to circuit	Investigate bad connection and make good

Notes

1. Refrain from putting pressure on the face of the LED lamp
2. Avoid use of acid silicone glue
3. For one side connected to the power cable, serial connection is less than 20pcs
4. For both sides connected to the power cable, serial connection is less than 30pcs. See cable connection diagram for further information.
5. Each connecting point and end of module should be insulated
6. Arranging modules – distance between modules should be adjusted according to the size and shape of the bottom board
7. Do not use pull/push cables for this installation
8. For outdoor use, the bottom installation point of each sign must have a 5-8mm hole to prevent water ingress
9. Before connecting the power supply, please check the voltage and circuit are correct
10. Please use a power supply with a short-circuit, overload and overvoltage protection
11. This product has not been evaluated for use when connected to a power supply that does not comply with Class 2 DC12V and energy limited supplies.

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