VIVID LIGHTSTRIP XL: 24V

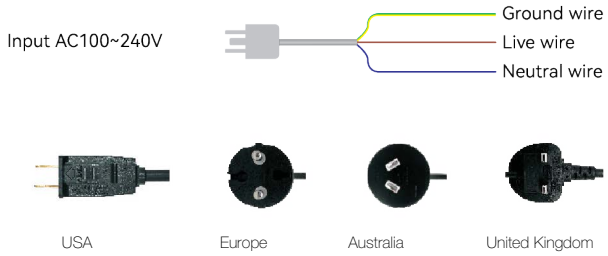
Wiring Diagram - Static Whites

1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;

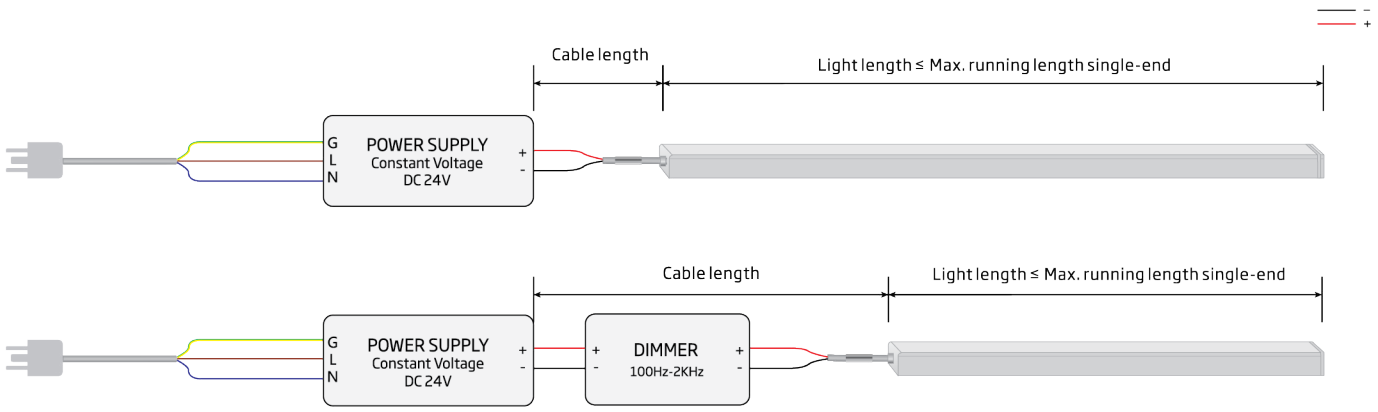
2. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity; and

3. Dimming frequency ranges from 100Hz to 2000Hz, and 500Hz is recommended.

4. Types of standard plugs available from factory if exit and plug is selected in connectors



WIRING - STATIC - SINGLE



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
2. Please ensure the light length is less than the table “Max. Running Light Length 1 Connector”.

MAX RUNNING LIGHT LENGTH 1 CONNECTOR

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	18AWG*2
Silicone 24V: Power 2.43W/ft (8W/m)	65.6ft (20m)
Silicone 24V: Power 2.74W/ft (9W/m)	49.2ft (15m)
Silicone 24V: Power 3.66W/ft (12W/m)	49.2ft (15m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

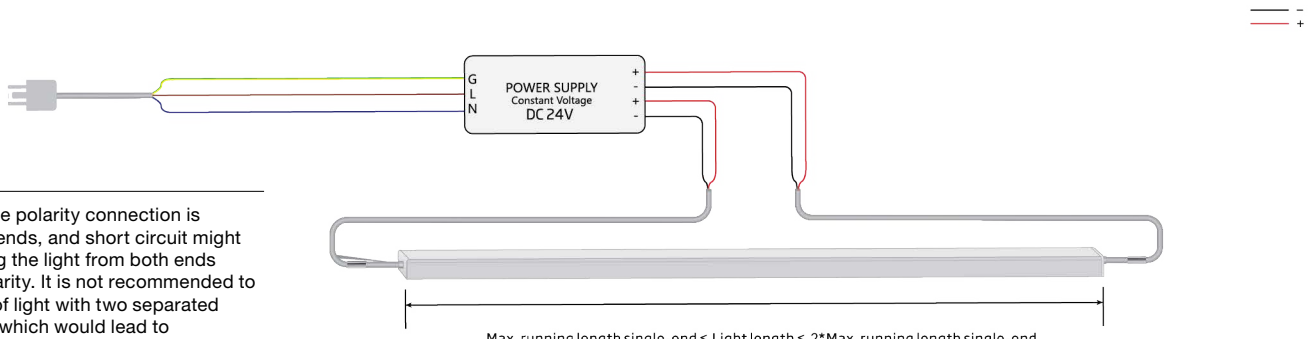
VIVID LIGHTSTRIP XL: 24V

COMPLEXITY, SIMPLIFIED.

Wiring Diagram - Static Whites

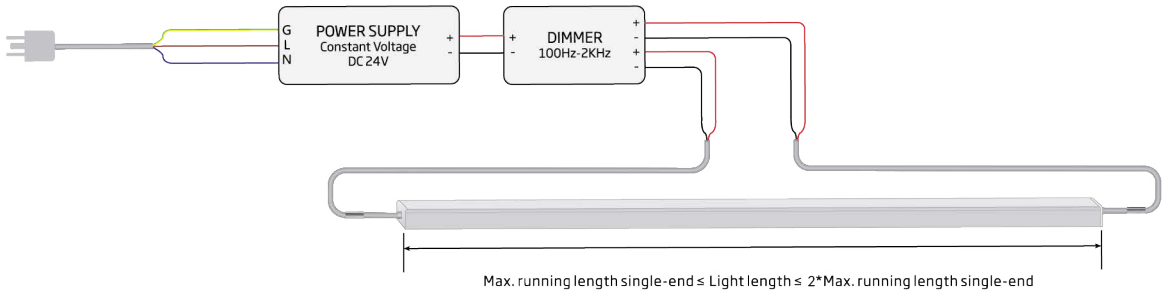
WIRING - STATIC - DOUBLE

The following wiring diagram with 2 conntectors to run length that is longer than max. running length for 1 connector but less than twice the value.



WARNING

Please ensure the polarity connection is correct on both ends, and short circuit might occur if powering the light from both ends with reverse polarity. It is not recommended to feed both ends of light with two separated power supplies, which would lead to overloading and overheating problem if either power supply is failed.



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for 2 connectors.
2. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the table “Max. Running Light Length 2 Connectors”.

MAX RUNNING LIGHT LENGTH 2 CONNECTORS

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	18AWG*2
Silicone 24V: Power 2.43W/ft (8W/m)	131.2ft (40m)
Silicone 24V: Power 2.74W/ft (9W/m)	98.4ft (30m)
Silicone 24V: Power 3.66W/ft (12W/m)	98.4ft (30m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

VIVID LIGHTSTRIP XL: 24V

Wiring Diagram - Tunable Whites

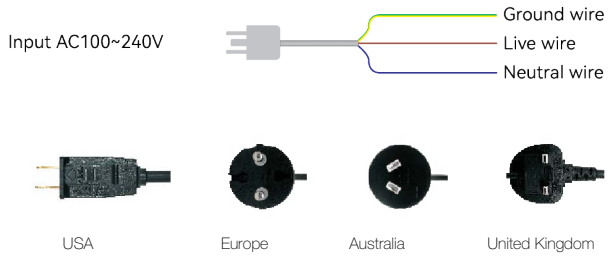
1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;

2. A compatible controller is required to achieve various light changing effects;

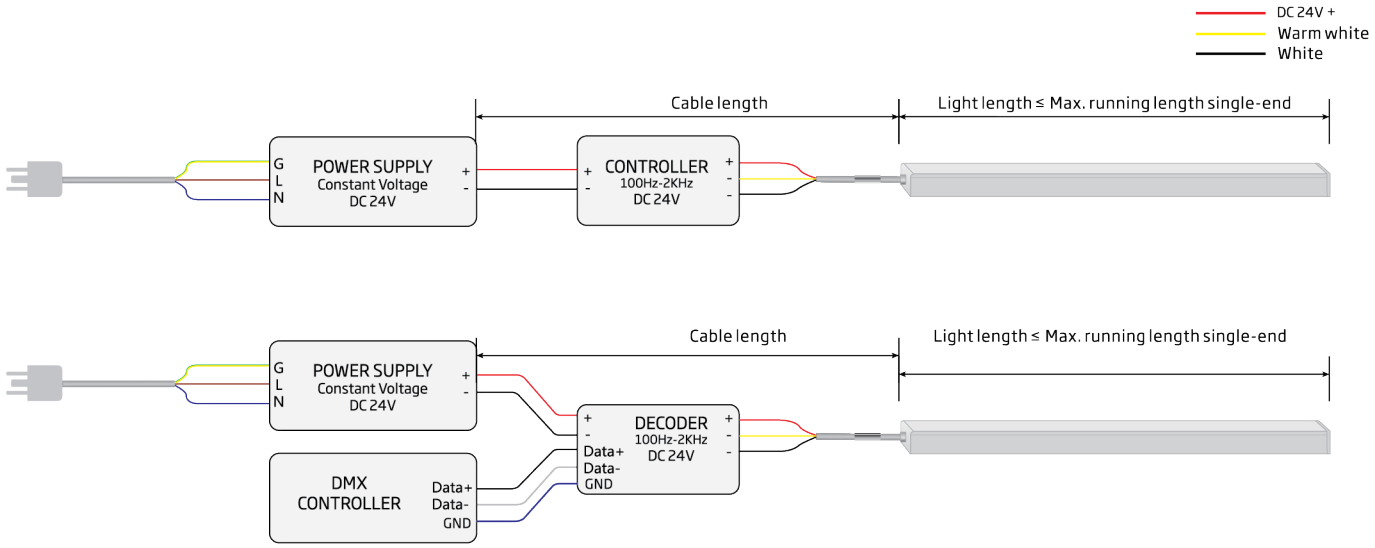
3. The rated power of controller/decoder shall be higher than the actual power consumption of light; its frequency range shall be 100~2000Hz, and 500Hz is recommended;

4. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity;

5. Types of standard plugs available from factory if exit and plug is selected in connectors.



WIRING - TUNABLE - SINGLE



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
2. Please ensure the light length is less than the table “Max. Running Light Length 1 Connector”.
3. Shielded twisted pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

MAX RUNNING LIGHT LENGTH 1 CONNECTOR

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	18AWG*3
Silicone 24V Full Load: Power 3.66W/ft (12W/m)	49.2ft (15m)
Silicone 24V Dynamic Load: Power 3.66W/ft (12W/m)	65.6ft (20m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

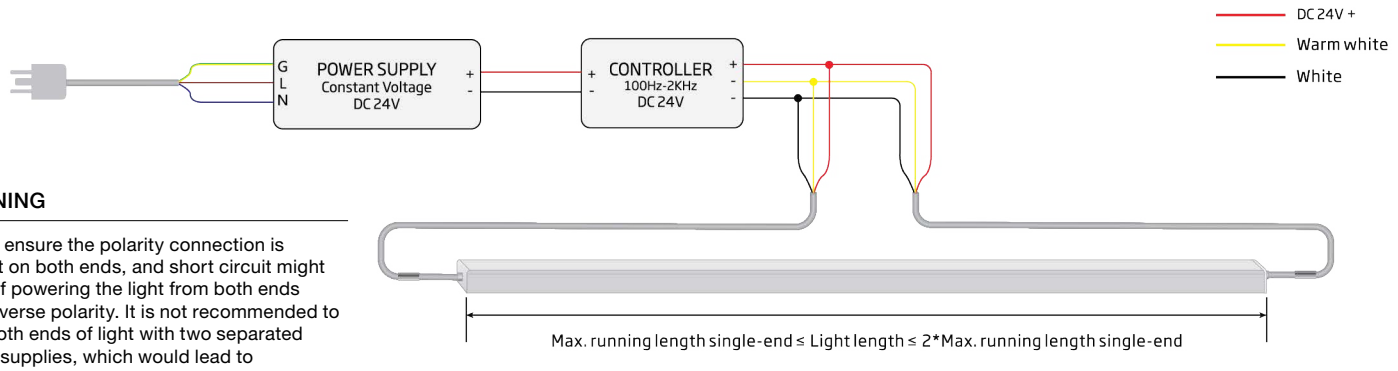
VIVID LIGHTSTRIP XL: 24V

COMPLEXITY, SIMPLIFIED.

Wiring Diagram - Tunable Whites

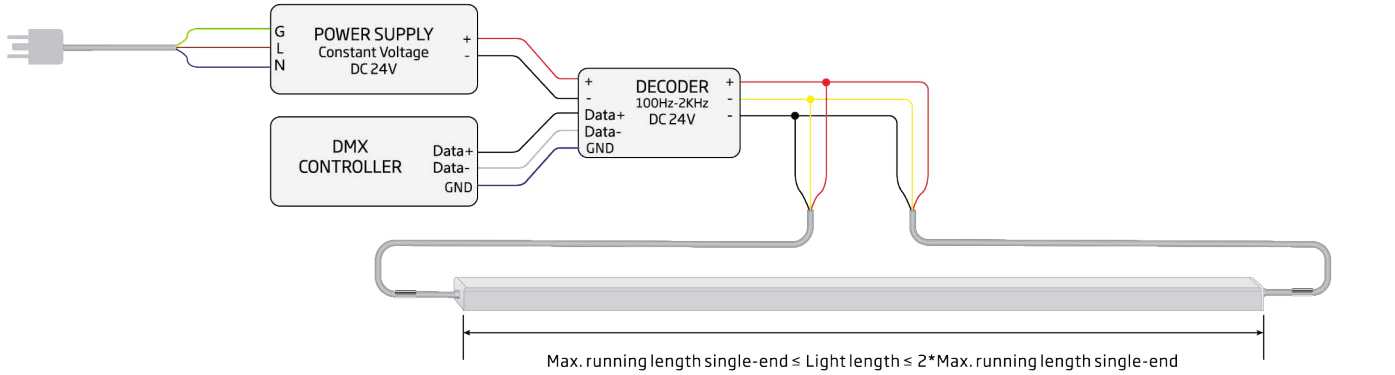
WIRING - TUNABLE - DOUBLE

The following wiring diagram with 2 conntectors to run length that is longer than max. running length for 1 connector but less than twice the value.



WARNING

Please ensure the polarity connection is correct on both ends, and short circuit might occur if powering the light from both ends with reverse polarity. It is not recommended to feed both ends of light with two separated power supplies, which would lead to overloading and overheating problem if either power supply is failed.



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for 2 connectors.
2. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the table “Max. Running Light Length 2 Connectors”.
4. Shielded twisted pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

MAX RUNNING LIGHT LENGTH 2 CONNECTORS

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	18AWG*3
Silicone 24V Full Load: Power 3.66W/ft (12W/m)	98.4ft (30m)
Silicone 24V Dynamic Load: Power 3.66W/ft (12W/m)	131.2ft (40m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

VIVID LIGHTSTRIP XL: 24V

Wiring Diagram - RGB

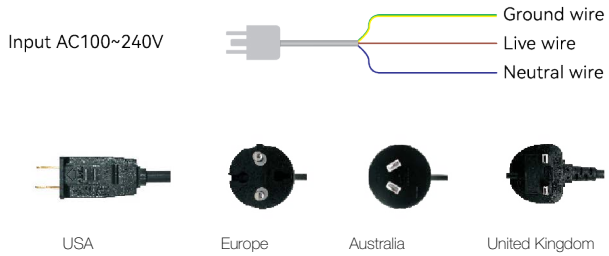
1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;

2. A compatible controller is required to achieve various light changing effects;

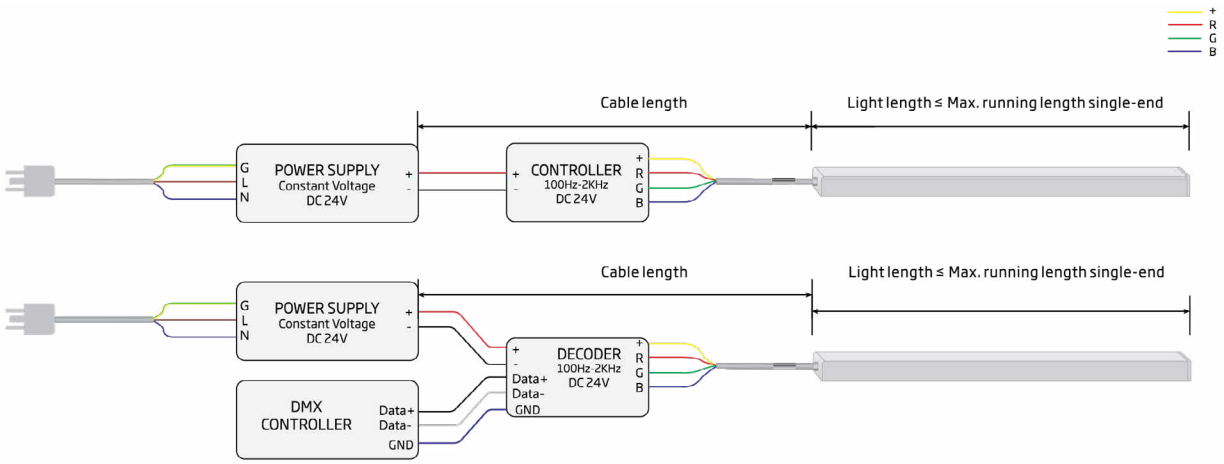
3. The rated power of controller/decoder shall be higher than the actual power consumption of light; its frequency range shall be 100~2000Hz, and 500Hz is recommended;

4. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity;

5. Types of standard plugs available from factory if exit and plug is selected in connectors.



WIRING - RGB - SINGLE



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
2. Please ensure the light length is less than the table “Max. Running Light Length 1 Connector”.
3. Shielded twisted pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

MAX RUNNING LIGHT LENGTH 1 CONNECTOR

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	20AWG*1 + 22AWG*3
Silicone 24V Full Load: Power 3.66W/ft (12W/m)	32.8ft (10m)
Silicone 24V Dynamic Load: Power 3.66W/ft (12W/m)	49.2ft (15m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

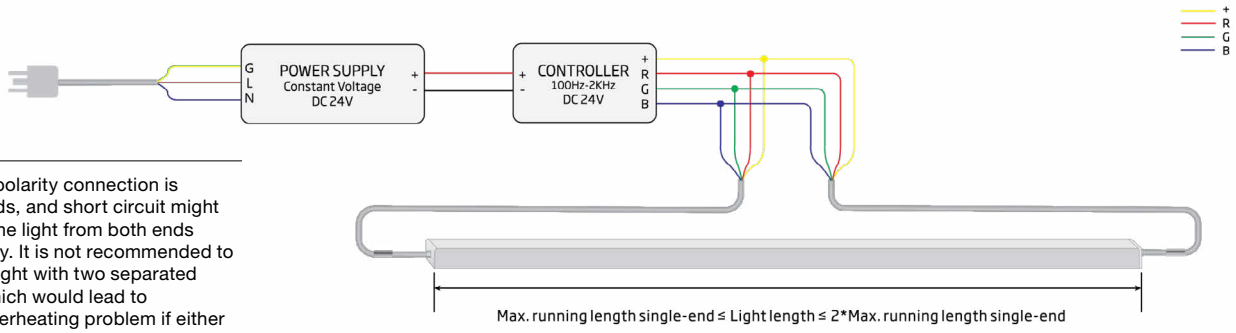
VIVID LIGHTSTRIP XL: 24V

COMPLEXITY, SIMPLIFIED.

Wiring Diagram - RGB

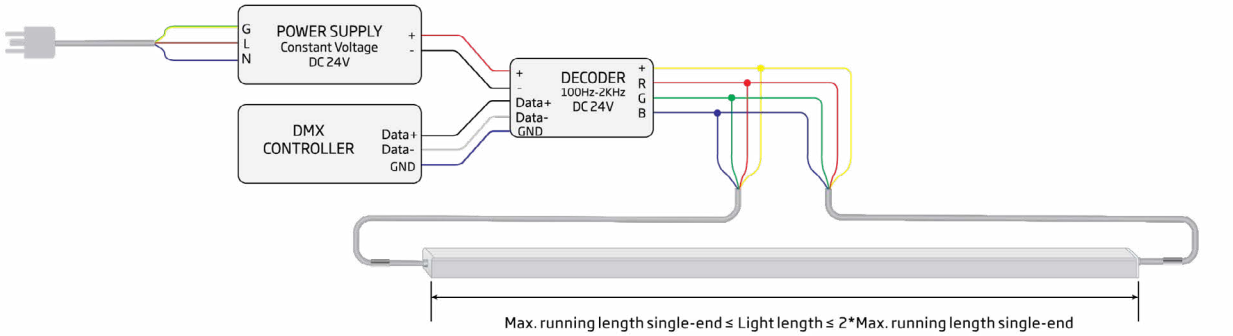
WIRING - RGB - DOUBLE

The following wiring diagram with 2 conntectors to run length that is longer than max. running length for 1 connector but less than twice the value.



WARNING

Please ensure the polarity connection is correct on both ends, and short circuit might occur if powering the light from both ends with reverse polarity. It is not recommended to feed both ends of light with two separated power supplies, which would lead to overloading and overheating problem if either power supply is failed.



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for 2 connectors.
2. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the table “Max. Running Light Length 2 Connectors”.
4. Shielded twisted pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

MAX RUNNING LIGHT LENGTH 2 CONNECTORS

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	20AWG*1 + 22AWG*3
Silicone 24V Full Load: Power 3.66W/ft (12W/m)	65.6ft (20m)
Silicone 24V Dynamic Load: Power 3.66W/ft (12W/m)	98.4ft (30m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

VIVID LIGHTSTRIP XL: 24V

Wiring Diagram - RGBW

1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;

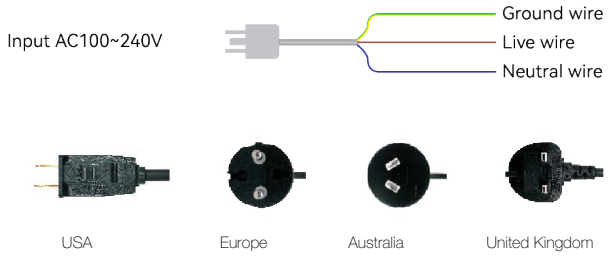
2. A compatible controller is required to achieve various light changing effects;

3. The rated power of controller/decoder shall be higher than the actual power consumption of light; its frequency range shall be 100~2000Hz, and 500Hz is recommended;

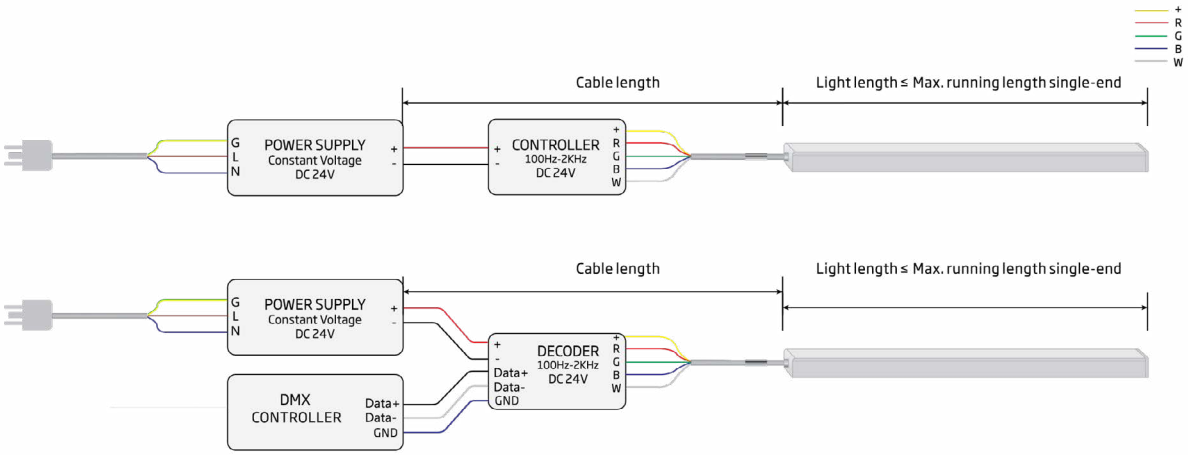
4. Full loading in RGBW is not recommended to avoid the overheating of light.

5. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity;

6. Types of standard plugs available from factory if exit and plug is selected in connectors.



WIRING - RGBW - SINGLE



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
2. Please ensure the light length is less than the table “Max. Running Light Length 1 Connector”.
3. Shielded twisted pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

MAX RUNNING LIGHT LENGTH 1 CONNECTOR

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	20AWG*1 + 22AWG*4
Silicone 24V Full Load: Power 4.57W/ft (15W/m)	26.24ft (8m)
Silicone 24V Dynamic Load: Power 4.57W/ft (15W/m)	39.36ft (12m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

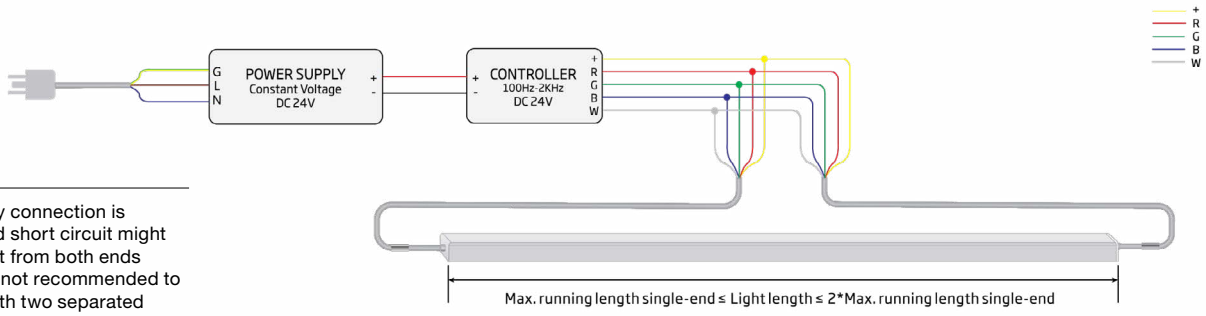
VIVID LIGHTSTRIP XL: 24V

COMPLEXITY, SIMPLIFIED.

Wiring Diagram - RGBW

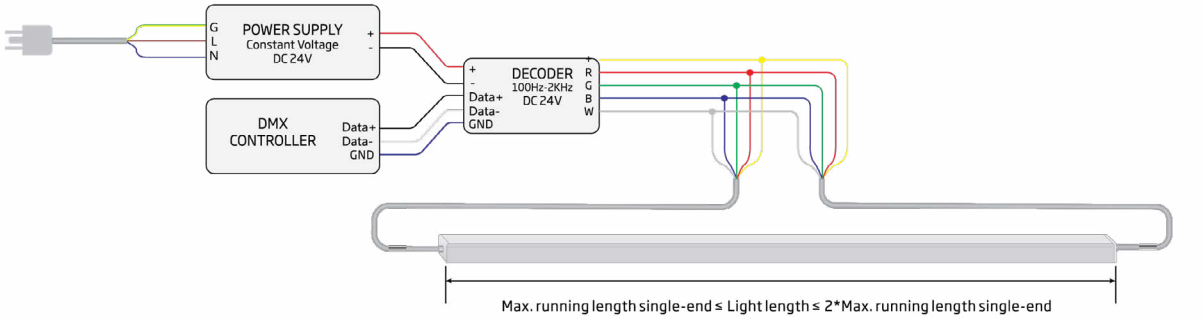
WIRING - RGBW - DOUBLE

The following wiring diagram with 2 conntectors to run length that is longer than max. running length for 1 connector but less than twice the value.



WARNING

Please ensure the polarity connection is correct on both ends, and short circuit might occur if powering the light from both ends with reverse polarity. It is not recommended to feed both ends of light with two separated power supplies, which would lead to overloading and overheating problem if either power supply is failed.



LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for 2 connectors.
2. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the table “Max. Running Light Length 2 Connectors”.
4. Shielded twisted pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

MAX RUNNING LIGHT LENGTH 2 CONNECTORS

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	20AWG*1 + 22AWG*4
Silicone 24V Full Load: Power 4.57W/ft (15W/m)	52.48ft (16m)
Silicone 24V Dynamic Load: Power 4.57W/ft (15W/m)	78.72ft (24m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

VIVID LIGHTSTRIP XL: 24V

Wiring Diagram - Direct DMX-Pixel

1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;

2. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity; and

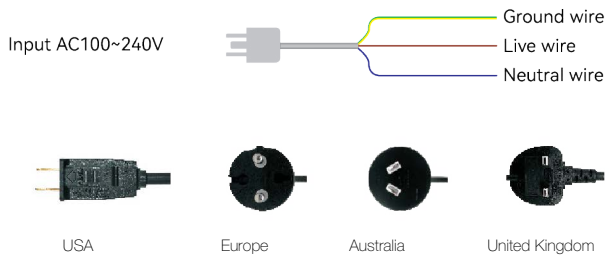
3. Types of standard plugs available from factory if exit and plug is selected in connectors.

4. Adopted UCS512CN IC inside, it is compatible with DMX512 controller at a baud rate of 250Kbps.

4.1 Without signal amplifier and termination resistor, max. signal transmission distance of DMX controller is 300m including the light length;

4.2 If any signal interference or attenuation occurs, in the case of no signal amplifier, 120Ω termination resistor should be added to achieve smooth and long-distance signal transmission up to 600m from DMX controller output to the light end;

4.3 When DMX controller is far away from light, combined with signal amplifier, the signal can transmit further. Please be aware the max. distance between DMX512 controller and signal amplifier is 300m, and the extended signal transmission distance depends on the specification of signal amplifier.



5. DMX512 controller can run max. 512 channels each port, and for each pixel, 4 channels are needed for RGBW, 3 channels for RGB, 2 channels for Dynamic light, and 1 channel for Monochrome. The rest parts beyond control should work with other ports of controller once the total occupied channels of light exceed 512.

6. DMX controller is used for signal transmission only, and the independent power supply is required to power up lights. Please refer to the following wiring

LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
2. Please ensure the light length is less than the maximum run length.

MAX RUNNING LIGHT LENGTH 1 CONNECTOR

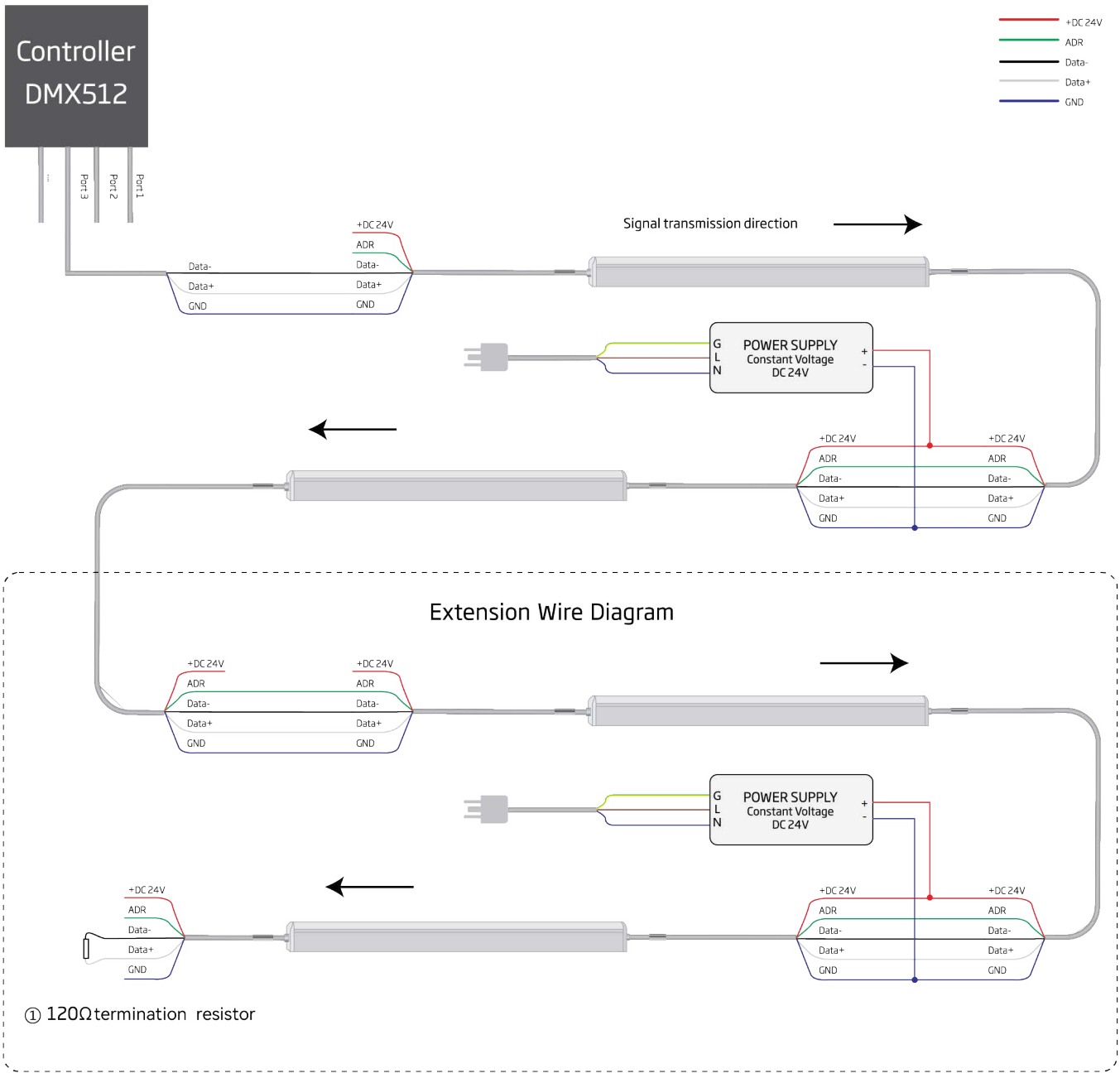
CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	20AWG*2 + 22AWG*3
Silicone 24V Full Load: Power 3.66W/ft (12W/m)	49.2ft (15m)
Silicone 24V Dynamic Load: Power 3.66W/ft (12W/m)	65.6ft (20m)
Silicone 24V Full Load: Power 4.57W/ft (15W/m)	32.8ft (10m)
Silicone 24V Dynamic Load: Power 4.57W/ft (15W/m)	49.2ft (15m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.

VIVID LIGHTSTRIP XL: 24V

Wiring Diagram - Direct DMX-Pixel

WIRING - DMX-PIXEL - SINGLE



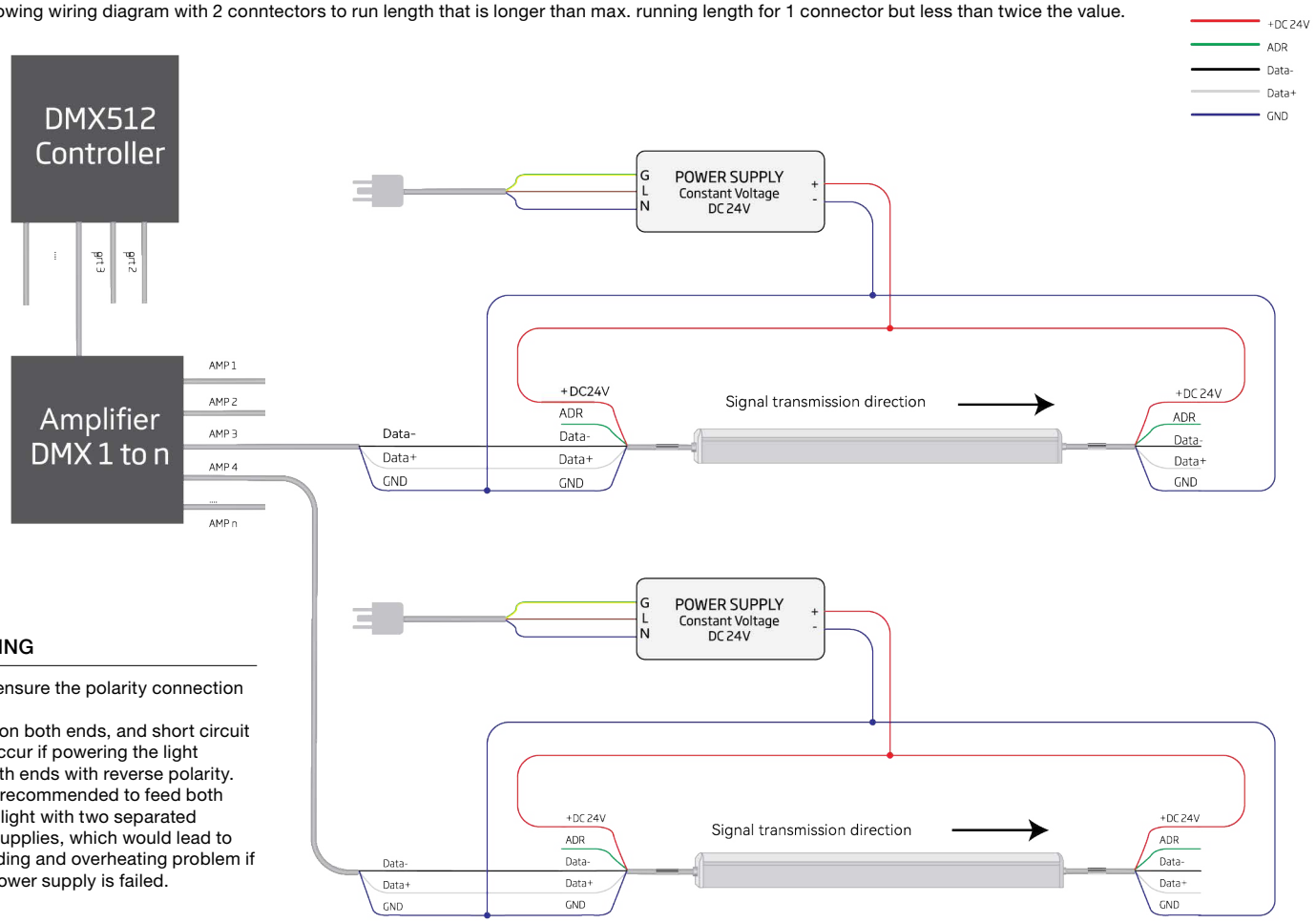
VIVID LIGHTSTRIP XL: 24V

COMPLEXITY, SIMPLIFIED.

Wiring Diagram - Direct DMX-Pixel

WIRING - DMX-PIXEL - DOUBLE

The following wiring diagram with 2 conntectors to run length that is longer than max. running length for 1 connector but less than twice the value.



WARNING

Please ensure the polarity connection is
correct on both ends, and short circuit might occur if powering the light from both ends with reverse polarity. It is not recommended to feed both ends of light with two separated power supplies, which would lead to overloading and overheating problem if either power supply is failed.

LIGHT LENGTH

The length of the longest single light in parallel connection or sum of lights in series connection.

CABLE LENGTH

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

HOW TO MINIMIZE VOLTAGE DROP

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for 2 connectors.
2. Please ensure the cable length is not more than the table “Max. Cable Length” according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the maximum run length when powering from 2 connectors.

MAX RUNNING LIGHT LENGTH 2 CONNECTORS

CONNECTOR TYPES	SILICONE SEAMLESS
Wire gauge	20AWG*2 + 22AWG*3
Silicone 24V Full Load: Power 3.66W/ft (12W/m)	98.4ft (30m)
Silicone 24V Dynamic Load: Power 3.66W/ft (12W/m)	131.2ft (40m)
Silicone 24V Full Load: Power 4.57W/ft (15W/m)	65.6ft (20m)
Silicone 24V Dynamic Load: Power 4.57W/ft (15W/m)	98.4ft (30m)

Note: Above conclusion is based on voltage drop testing result of the light with 0.98ft (0.3m) cable only. The maximum running length is based on a static light in full load. Above running length is only the light length excluding lengths of connectors. The delivered length might be subject to the maximum packing length.