LED Strip Range

Installation instructions for Single Colour LED Tape

JCC | a **LEVITON** company

Warnings & cautions

- To avoid electric shock, serious injury or property damage, isolate power before installing, removing or servicing the product
- It is recommended that luminaires are installed by a qualified electrician and the installation complies with the local current wiring regulations.
- Any broken or damaged parts should be replaced as soon as possible.
- JCC will not accept responsibility for claims arising from sub-standard installations.

- These products are suitable for indoor(IP20) or outdoor use(IP65) depending on IP rating
- The light source of this LED tape is not replaceable: When the light source reaches the end of it's life, the whole of the LED tape must be replaced.
- It may be necessary to upgrade your MCBs to allow for increased inrush current.
- Do not carry out insulation tests with the product connected to the circuit.
- It is recommended that the ambient room temperature should not exceed 25℃.
- Terminal blocks used for mains connection must comply to EN 60998-2-1 or EN 60998-2-2

Read instructions and check that you have all of the tools and accessories required to complete the installation correctly. Isolate power supply before starting the installation.

INSTALLATION

ENGLISH

LED tape input: 24VDC

IP65/IP20
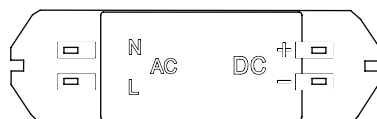(see descriptions for applicable IP ratings)

Please note: All LED tape can suffer voltage drop over distance, depending on configuration of LED tape, DC cable and driver. Any run over 10m may result in up to 2% loss of output per meter thereafter. Consider adding a new power supply every 10m to ensure you achieve the maximum performance of your tape. All the standard length LED tape products can be cut every 50mm if required. It is the installer's responsibilty to ensure if the IP65 tape is cut, they maintain the IP rating of the tape by using heatshrink, silicone end caps with suitable silicone sealant where applicable.

Driver Wattage ÷Tape Wattage (per metre) =max length of tape per driver
30÷4.8=6.25m
30÷9.6=3.12m
30÷14.4=2.08m
50÷4.8=10.4m
50÷9.6=5.2m
50÷14.4=3.45m
75÷4.8=15.6m
75÷9.6=7.8m
75÷14.4=5.2m
150÷4.8=31.25m
150÷9.6=15.6m
150÷14.4=10.4m
180÷4.8=37.5m
180÷9.6=18.75m
180÷14.4=12.5m

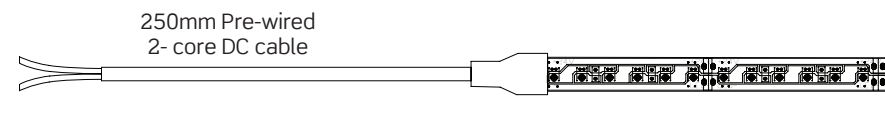Note: The table above is for reference only. You should never exceed the driver maximum Wattage.

(1)

- Select a driver that is suitable to run the LED tape overall Wattage using the table on the left as a guide. The total tape Wattage must not exceed the driver maximum Wattage.
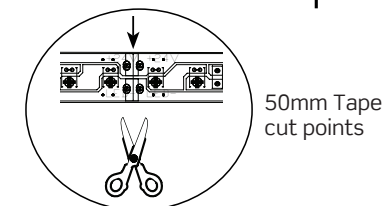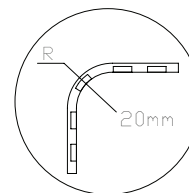

(3)

- LED Tape can be bent to curve around a corner in a continuous run, but only when placed on a vertical surface horizontally i.e. on a wall from left to right. The LED tape must only be bent with an inner radius of 20mm max as illustrated to the right. If bent past the 20mm max, it could damage the circuit board causing failure of the LED chips to illuminate.

(2)

- Single Colour IP20 and IP65, 5 metre tape packs are pre-wired with 250mm of 2 core DC cable, ready to connect to the driver output. The Tape can be cut at 50mm intervals to suite. You must only cut at the copper connection points(50mm intervals). If you cut any where other than the copper cut points, it will damage the LED tape and will affect the circuit board and/or light output.

250mm Pre-wired 2- core DC cable

50mm Tape cut points

R 20mm

(4)

- LED Tape cannot be bent to curve around a corner, when placed on a horizontal surface i.e on the underneath of a kitchen wall cabinet from left to right. The LED tape can only continue around a corner if cut and a DC cable corner connector(a) is used or a LED Tape Corner(b) is used. If using the LED Tape Corner(b) the length of the tape and placement of the tape may need to be adjusted to allow for the width of the corner piece.

- Note: when cutting and re-connecting the LED tape, make sure that you match the polarity of the tape i.e **+** (positive) to **+** (positive) and **-** (negative) to **-** (negative)

(a)

(b)
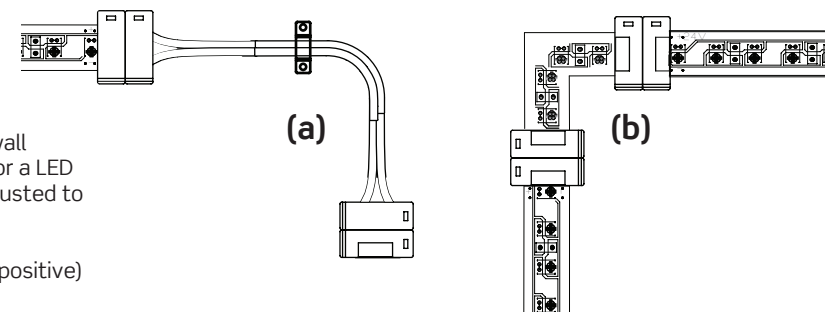
(5)

There are two types of connector available to use when connecting LED Tape, a Clamshell clip fig.1. or a Hippo clip fig.2. Both are available to connect tape to DC cable or Tape to Tape
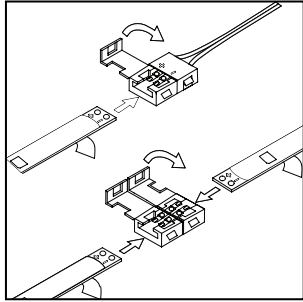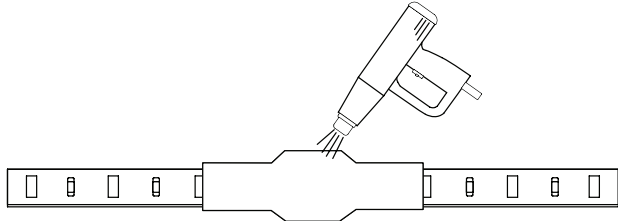

fig.1.

fig.2.

(6)

When cutting and re-connecting IP65 tape, with either type of connector or when soldering, you must ensure that all connections are protected using heathrink to assist with maintaing the IP rating
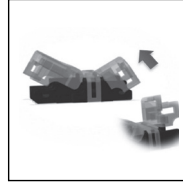

(7)

Aluminium profile can be used to install LED Tape, it diffuses the light and assists with heat disipation. It is available in three styles; Corner, surface or recessed in lengths from 0.5m to 2m in 0.5m increments.
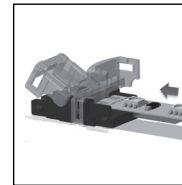

Corner Profile   Surface Profile   Recessed Profile
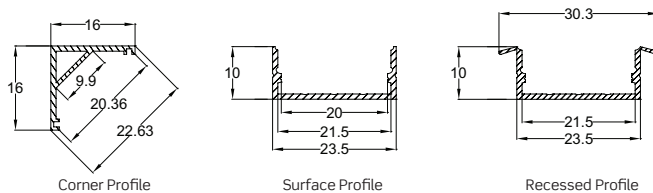
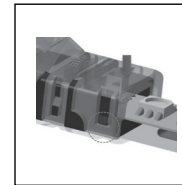## How to use Hippo clips

1. To connect IP20 LED tape, open covers on connector
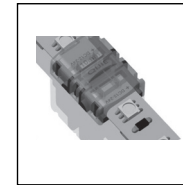
2. Peel back the adhesive protective cover

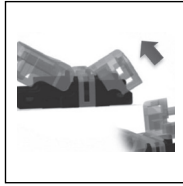**3.** Align the tape and insert into the connector

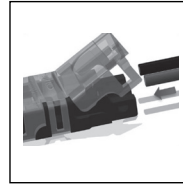**4.** Close the cover on the connector ensuring that it is clipped in place

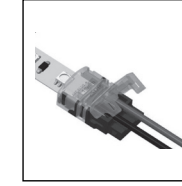**5.** When connecting tape to the oppsite side ensure that the polarity is maintained

6. There a two types of connector; tape to tape and tape to DC cable
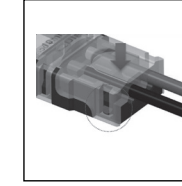
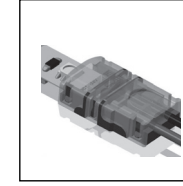**7.** To connect IP20 LED tape to DC cable, open covers on connector

8. Prepare the DC cable, remove 1-2cm of the outer insulation. Cut the ends flat and do not remove the inner insulation

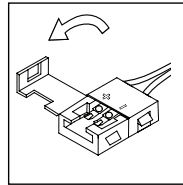**9.** Align the DC cable and insert into the connector

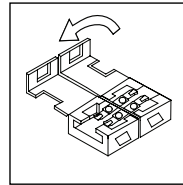**10.** Close the cover on the connector ensuring that it is clipped in place

11. To connect the tape, follow 1-4 above. Ensure that the polarity is maintained

Note: When using DC cable for the Tape to DC Hippo connector, it is recommended only to use DC cable between $0.35mm^2$ and $0.75mm^2$.(AWG22 to AWG18). These connectors can be used for connecting IP65 tape, but the Silcone cover on the tape will need to be removed to allow the tape to be inserted into the connector. It is the installer's responsibility to ensure the IP65 rating is maintained by using heatshrink, silicone end caps with suitable silicone sealant where applicable.
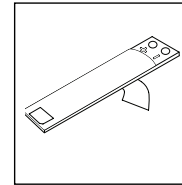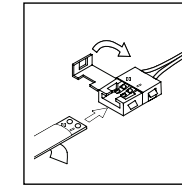
How to use Clamshell clips

1. To connect IP20 LED tape, to the tape to to DC connector open cover on the connector
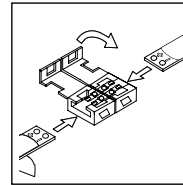
2. To connect IP20 LED tape to tape, open both covers on the connector

3. Peel back the adhesive protective cover

4. Align the tape and insert into the connector, ensure you match the polarity, close cover

5. Align the both pieces of tape and insert into the connector, ensure you match the polarity, close covers

Note: These connectors can be used for connecting IP65 tape, but the Silcone cover on the tape will need to be removed to allow the tape to be inserted into the connector. It is the installer's responsibility to ensure the IP65 rating is maintained by using heatshrink, silicone end caps with suitable silicone sealant where applicable.

CE UK CA RoHS Compliant

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