

## TECHNICAL SPECIFICATION



PART CODE	RGB144-12V-IP20	RGB144-24V-IP20	RGB144-12V-IP65	RGB144-24V-IP65
IP RATING	IP20	IP20	IP65	IP65
INPUT VOLTAGE	12V DC	24V DC	12V DC	24V DC
WATTAGE	14.4W / m	14.4W / m	14.4W / m	14.4W / m
WIDTH	10mm	10mm	10mm	10mm
HEIGHT	2mm	2mm	3mm	3mm
LED CHIP SIZE	5050	5050	5050	5050
LEDS PER METRE	60	60	60	60
CUTTING INCREMENT	50mm	100mm	50mm	100mm
BEAM ANGLE	120°	120°	120°	120°
OPERATING TEMP.	-10° to 45°C	-10° to 45°C	-10° to 45°C	-10° to 45°C
AVERAGE ILLUMINATION**	30000 hours	30000 hours	30000 hours	30000 hours
WARRANTY	5 years	5 years	5 years	5 years

## INSTALLATION

**WARNING!** Read this section before any installation work is carried out. All work should be carried out as per our instructions. Failure to do so may damage the unit and other products associated with it and void any warranty.

**All work involving electrical components should be carried out by a competent qualified electrical professional in accordance to NICEIC and IET BS 7671 wiring regulations and any local by laws.**

**Ensure all mains power is turned off before starting any installation or maintenance; and remains off for the duration of installation or maintenance.**

Waste electrical products should not be disposed of in domestic waste. Please check with your Local Authority or retailer for recycling advice.

### VOLTAGE, DRIVERS & MAXIMUM LOAD

This LED tape is NOT mains voltage. Do not exceed the LED ribbons maximum voltage.

You must use 12V DC LED drivers for 12V LED tape or 24V DC LED drivers for 24V LED tape. You should check the correct LED driver is used before starting installation, incorrect drivers may damage the LED tape beyond repair. You can find the voltage of your LED tape printed on the strip.

Your LED driver will have a maximum load. Do not put more load through the LED driver than the maximum load. Our LED drivers maximum load are rated by wattage.

To calculate the minimum wattage of your LED driver for your LED tape use the following this equation:

$$\begin{array}{rcccl} \text{Wattage of} & & \text{Total Length} & & \text{Total} \\ \text{LED tape per} & \times & \text{of LED Tape in} & = & \text{Wattage} \\ \text{Metre} & & \text{Metres} & & \text{Required of} \\ & & & & \text{LED Driver} \\ \\ \text{e.g 14.4} & \times & 2 & = & 28.8\text{W} \end{array}$$

Ensure your LED drivers maximum load is greater than Total Wattage Required of LED Driver from the above equation.

### MOUNTING SURFACE

LED tape is not designed to be attached directly to a non conductive surface such as wood, brick, paper, plaster or plastic. Doing so may reduced the life of the LED.

It is recommended to use aluminum backing on all LED tape. Other options are available but please contact us for advice.

On some materials the self adhesive strip may require additional adhesive. We recommend a grab adhesive.

### IF IN DOUBT CONTACT US: 0116 246 1188

We are only able to offer advice and installation instruction on our own products, we are unable to offer individual advice on other manufactures products. You are required and responsible for ensuring that the specification of this product is compatible with other products from other manufactures.

Please ensure that all products used in your installation are complete, correct and compatible before starting any installation. Failure to do so may result in damaged products, our warranty does not cover damage caused by or to any other manufactures products.

### CORNERS & BENDS

LED tape is flexible, however it will not make 90° bends. Trying to force the LED tape to make these bends may damage the LED circuit board, causing some or all LEDs to stop working. To make 90° beds you should create a link between two LED tapes.

IP rated tape will have reduced flexibility compared to non IP rated tape.

### CUTTING

You must always cut LED tape along the cut points. The cut point is indicated by the scissor mark.

When cutting IP rated ribbon you should ensure a good heat shrink is applied to maintain the IP rating of the ribbon. Failure to do so will result in reduced or no IP rated protection.

Cutting the LED tape anywhere else other than along the cut point will stop the LED tape working.

### MAXIMUM RUN LENGTH

The maximum run length of 12V LED tape is 5 metres, 24V LED tape is 10 metres. The maximum length of a fly lead is 10 metres. You should not exceed these lengths in one continuous run. Doing so may cause voltage drop and result in reduced brightness.

To create longer runs, wire multiple lengths in parallel to the LED driver.

### IP PROTECTION

IP20 & IP33 LED tape can be installed in dry environments and has no water rated protection.

IP65 & IP67 LED tape can be installed in moderate wet environments and has splash water protection.

## INSTALLING WITHOUT DIMMING INTERFACE

1. Ensure all mains power is turned off.

2. Ensure the surface where your LED tape and aluminium are to be installed are clean and dry.

3. Fix the Aluminium strip to the surface.

The aluminium strip can be fixed into place with either screws or using a grab adhesive.

When fixing with screws you will need to drill your own holes where you require them.

Ensure the grab adhesive is dry before continuing your installation.

4. Remove the 3M backing of the LED tape.

5. With the adhesive side of the LED tape facing the aluminium strip, fix the LED tape to the aluminium strip.

NOTE: You may need our red tape (sold separately) in humid, damp or wet prone environments for added strength. Fix this to the aluminium strip before fixing the LED tape.

6. Connecting the LED driver to the mains. Follow the diagram on installation of LED driver to mains.

It is recommended to install the LED driver via an switch fuse isolator fitted with the correct fuse depending on the LED driver used. (See table for LED driver fuses).

NOTE: Ensure the LED driver has a clearance and air flow to prevent overheating.

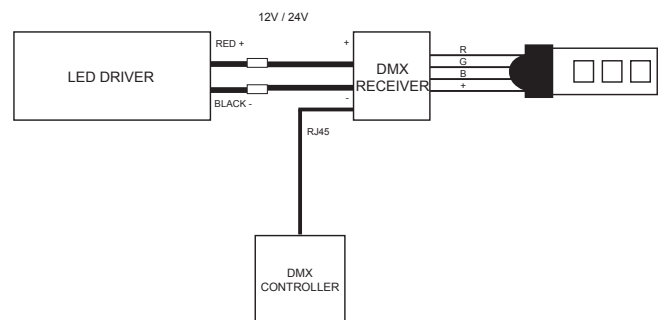
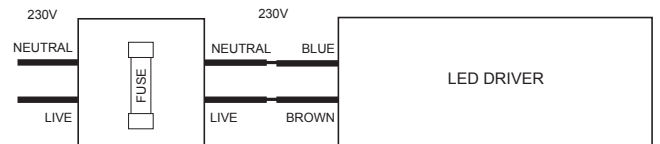
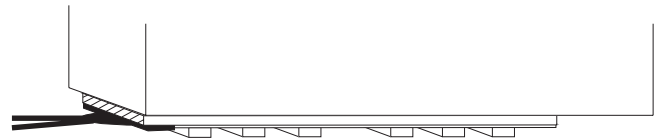
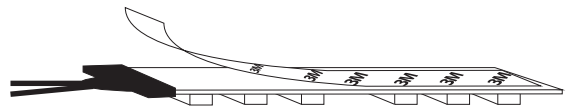
**Drivers in the table (to the left) marked with \* require a finger guard and must be Earthed**

7. Connecting the LED driver to DMX receiver. Follow the diagram installation of LED driver to DMX receiver.

It is recommended to make the connection using an in-line crimp.

NOTE: DMX controllers will vary on how to install, follow the manufactures installation instructions supplied with your DMX controller.

8. Once all wiring is completed and made safe turn on mains power.



## LIMITED PRODUCT WARRANTY

This product is sold with a 2 year standard warranty, effective for 24 months from the date of delivery.

1.1 Subject to the conditions set out below the Seller (Ledridge Lighting) warrants that the Goods will correspond with their written specification (if any) at the time of delivery and will be free from material defects in materials and workmanship for a period of 24 months from the date of delivery or for such longer period as the Seller (in its absolute discretion) may determine. The warranty does not apply to consumable items included with or in the product, which may have a reduced or no warranty period.

1.2 The warranty given in clause 1.1 above is given by the Seller strictly subject to the following conditions:

1.2.1 The Seller shall be under no liability in respect of any defect in the Goods arising from any drawing design specification or other information supplied by the Buyer or their agents.

1.2.2 The Seller shall be under no liability in respect of any defect arising from fair wear and tear, willful damage, negligence, abnormal working conditions or water damage where the product has limited or no water protection and installed in the incorrect environment, failure to follow the Seller's instructions (whether oral or written), misuse or alteration or repair of the goods without the Seller's approval.

1.2.3 The Seller shall be under no liability under the warranty given in 1.1 above (or any other warranty condition or guarantee) if the total price for the Goods has not been paid by the due date for payment.

1.2.4 The warranty given in 1.1 above does not extend to any Goods, parts, materials or equipment not manufactured by the Seller in respect of which the Buyer shall only be entitled to the benefit of any such warranty or guarantee as is given by the manufacturer thereof the Seller.

1.3 Any claim by the Buyer which is based on any defect in the quality or condition of the Goods shall be notified to the Seller within 7 days from the date of delivery of the Goods or within a reasonable time after discovery of the defect or failure. If delivery is not refused and the Buyer does not notify the Seller accordingly, the Buyer shall not be entitled to reject the Goods and the Seller shall have no liability for such defect or failure and the Buyer shall be bound to pay the price of the Goods.

1.4 Any repair, replacement or refund or any monies made by the Seller to the Buyer shall not under any circumstances be deemed to be an admission of any liability on the part of the Seller.

1.5 All liabilities of the Seller to the Buyer determined by the Court of Law as not having been excluded hereunder shall be limited in total to the total price of the Goods as shown on the Seller's invoice.

1.6 To obtain warranty service, the original proof of purchase will be required.

1. Lumen outputs are depicted at the maximum level during testing under optimal conditions. Actual levels may vary depending on a number of external factors outside of our control.
2. While we do our best to maintain colour consistency this may vary between batches. When ordering repeat items the item supplied may not be from the same batch as previous purchases and so may have slight variation in colour rendering. All purchases made at the same time will be supplied from LED ribbon of the same batch.
3. Average illumination times are based on LED chip brightness reduction to 70% of the original brightness under optimal conditions. External factors, such as; but not limited to, heat may decrease illumination lifetime. Illumination time does not reflect the expected life span of the LED ribbon, which are covered by warranty.