

# Harlequin RGB LED Strip Specifications & Installation Guide



A linear LED strip that produces vibrant full Red, Green & Blue colour mixing with minimal colour spots and shadows



## Specifications

Digilin Stock Code

HRGB500

JHRGBdddd-x (in Javelin extrusion)

Where dddd is length (in mm)

x is Javelin cover/diffuser

Input Power

24V DC, 120mA per colour



## Safety Notes

**Do Not** exceed rated maximum voltage

**Check** supply circuit before energising

**Do Not** connect separate power drivers together

Turn off before cleaning

Clean only with non-Conductive brush

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## Specifications

		Per Colour	Total
Drive Voltage	Nominal		24VDC
	Min		20VDC
	Absolute Maximum		30VDC
Drive Current	Per strip	120mA	360mA
	Per metre	240mA	720mA
Watts	Per strip	2.9W	8.7W
	Per metre	5.8W	17.6W
Beam Angle			110°
Maximum run from power connection	Strips		16
	Metres		8

The strip must be mounted on a metal substrate for heat dissipation

Digilin Part Code	Colour	Lumens per	
		Strip	Metre
HRGB500	Red	86	172
	Green	145	290
	Blue	52	104
	All On	274	548

Note that the Javelin covers/diffusers may reduce the light output from the strip

### **Power Driver Maximum Load**

The Harlequin RGB LED strip requires a common anode PWM LED driver to achieve full colour mixing.

Power Driver	Rated		Recommended Max Current (continuous)	Max Load	
	Power	Current		Strips	Metres
LDMX-PWM-3	144W	3 x 2A	3 x 2A	16	8

The LDMX-PWM-3 requires an external 24V power supply (LPC3114E-24).

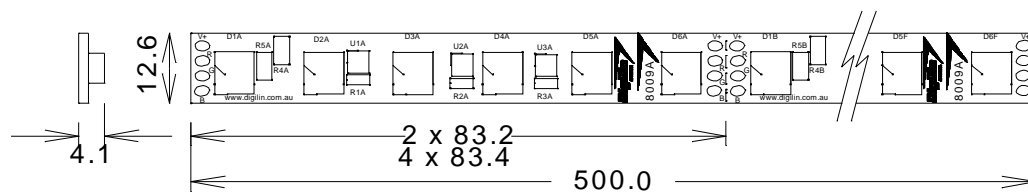
## Javelin Covers

Stock Code	Description	Effect
O	Opal Diffuser	Solid white cover to create the smoothest linear effect
F	Frosted Diffuser	Semi-transparent cover
C	Clear	Transparent Cover
30	Clear 30° Linear Lens	Lens focusing light at 30° along length axis
60	Clear 60° Linear Lens	Lens focusing light at 60° along length axis
90	Clear 90° Linear Lens	Lens focusing light at 90° along length axis

## Dimensions

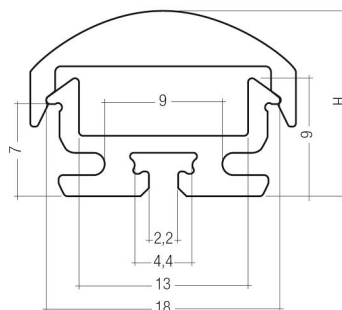
All measurements in mm.

## Harlequin RGB Strip

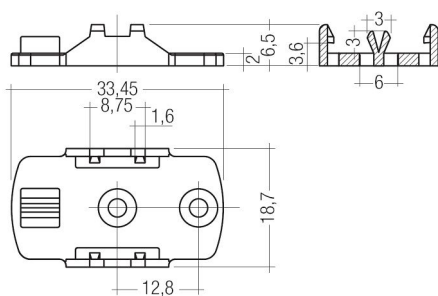


Strip has 2 segments at 83.2mm and 4 segments at 83.4mm

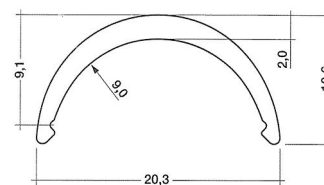
## Javelin Extrusion



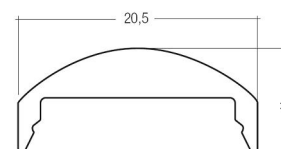
Javelin Extrusion (shown with Lens)



Javelin Mounting Clip



Javelin Cover/Diffuser



Lens	H
30°	11
60°	10
90°	9

Javelin Linear Lens

## Installation

### Mounting

- The strip must be mounted on a metal substrate for heat dissipation
- Do not install where water or high humidity may be present without further protection. Note that the Javelin extrusion is **NOT** sealed.
- Do not mount with the components or board touching any flammable surfaces.
- Do not install under mechanical stress
- Allow for expansion due to changes in temperature.
- Please be aware that while the system has a very long operational life, faults may still occur and provision needs to be made for maintenance.

### Mounting the Javelin Extrusion

To mount the Javelin extrusion, simply screw the mounting clips to the surface, and then push the extrusion into the clips.

Recommended Screw: M2.5 screws

or

Self tapping screws with a diameter of 2.2 to 2.9mm and a screw head height of no more than 2.2mm

1 clip for every 0.5m of extrusion required. Minimum of 2 clips.

### Wiring

- No continuous run of strips should exceed the specified maximum run value without additional power feeds.
- Only join strips powered by the same supply
- LEDs are connected in a common anode configuration (common positive)

## Maintenance

- Strips normally require no maintenance except for cleaning
- Isolate from power before accessing
- Visually inspect strips at the time for any obvious faults
- The strips may be dusted with a non conductive brush. No fluids should be used
- If this procedure does not remove contaminants please contact Digilin for further advice.

## Wiring Diagram

