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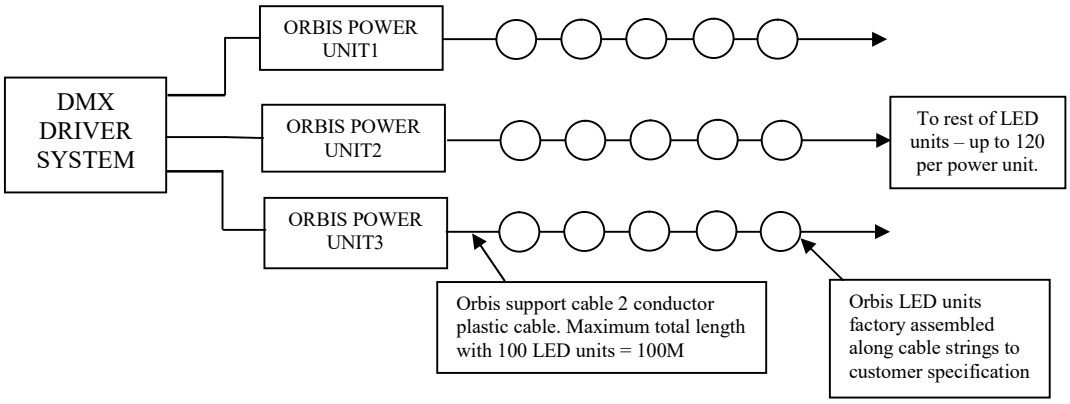
ORBIS.

Evolutionary from the tried and tested DFS3000RGB system, Orbis is the latest product from Glasson Electronics. The system forms strings of full individually colour controllable LED globes with a thin support cable passing through the centre. Each globe provides near full uniform 360 degree illumination. The system is ideal for vertical or shaped strings or for the creation of 3 dimensional dynamic optical forms. The system now has our new dramatically improved rate driven linear current control system for excellent low level dimming.

TYPICAL INSTALLATION EXAMPLE



TECHNICAL OVERVIEW

The system comprises the following components-

RM200 POWER SUPPLY

FEATURES

- Control of up to 120 Orbis LED units.
- Protected from lamp wiring faults.
- Lamp data updated every 0.03 seconds.
- DMX data input with standard RGB three channels per LED unit interface.
- Optional DMX control byte to place power unit into low power standby.
- 110 / 230VAC input.
- Power consumption 250W max.
- Comprehensive self diagnostic system with fault indication.
- Output voltage 32V.
- Compact unit measuring just 285 x 175 x 65mm.
- Weight 1.8Kg

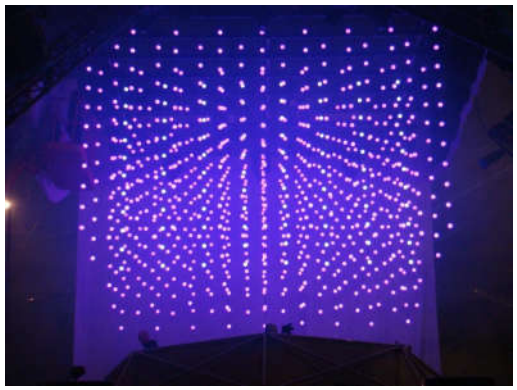
ORBIS LED UNIT

Orbis LED units comprise a single PCB circuit assembly suspended within two plastic moulded semi circles. The mouldings are bonded together using a special process producing a near seamless globe with a cable passing through the centre. Versions with cable glands for waterproofing or connectors are available. The PCB assembly has RGB LEDs carefully located to achieve near uniform illumination of the entire globe and excellent colour mixing. The circuit assembly also incorporates an infra red receiver for communication with the hand programmer described below. When the number of globes in a given string is low the cable can be very thin (<1mm) giving the impression of light sources floating in space.

The semi circles are bonded together at Glasson Electronics and finished to reduce visibility of the seam. The whole assembly forms a 70mm diameter white globe with cables or connectors across the diameter. The Welding and polishing process means

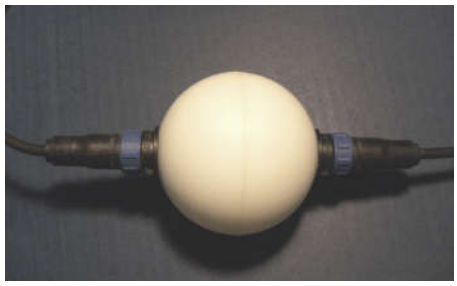
the system is not suitable for assembly on site however the LED units can be shipped at any customer specified spacing. Standard cable glands can be fitted

to the globes for outdoor applications. Note that although the seam between the globes is specially processed to reduce its optical impact it may still be slightly visible when viewed at short range.



Orbis LED units interpret the combined power and data signal and control RGB LEDS accordingly. Up to 120 LED units can be assembled in a single string with a maximum string length of 100M. The string length can be increased by running parallel strings with fewer LED units on each string.

Orbis LED unit with connector option.



Orbis LED unit with connector option fitted to inline connectors.

FEATURES

- Strong white 70mm diameter plastic globe,
- Up to 120 LED units connect on a single cable with a maximum total cable length of 100M. Cable length can be increased by the use of parallel connected strings with fewer LED units on each string.
- Small cable diameter for excellent overall transparency.
- Polarity insensitive – connects to the cable either way around.
- Tri colour LEDS for superior colour mixing.
- Linear current control (not PWM) for excellent flicker free colours when viewed with a video camera.
- Each LED unit has a unique address which is user programmed using the hand programmer described below. This can be reprogrammed thousands of times.
- Internal fuse resistor to prevent a single LED unit failure compromising the whole system.
- Version with connectors available.
- Waterproof cable gland version available.
- Globe diameter - 70mm,
- Cable diameter - 6mm
- Weight 50g.

HAND PROGRAMMER

The hand programmer is a commissioning and maintenance tool used to set the address of each LED unit. This may be performed as part of system commissioning or can be completed during manufacture of Orbis LED strings at Glasson Electronics. The hand programmer communicates to each globe using a short range infra red link. Simply point the programmer at the LED unit and press PROG. LED unit's address can be read or programmed thousands of times.