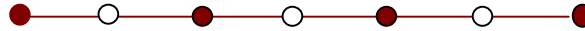


Digital Festoon Systems



Available Exclusively from White Light

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The DFS200 SYSTEM - Introduction

The Digital Festoon Systems DFS200 low voltage batten lamp driver represents a revolution in lamp control. It's a standard two-core festoon cable that carries both 48v and DMX using a unique patented data system. This means that up to 200 lamps can be individually controlled on a single cable from one DFS200 power unit. To realize large scale coordinated lighting displays involving hundreds of thousands of lights, practically any number of power units can be synchronized.

The DFS200 system realizes large scale coordinated lighting displays which are a world away from the static or simple repetitive sequencing systems currently available.

The DFS200 system builds lighting displays in scenes. A scene defines the state of each lamp pertaining to a given power unit. Each power unit can store up to 30,000 scenes and can play up to 20 scenes per second! This large memory area and fast playback makes possible long, non-repetitive, complex and incredibly dynamic lighting effects.

As mentioned above, power units can be synchronized, so the number of lights in a coordinated display is not limited. Note that although the power units can be synchronized they do not need to play the same scenes. Each power unit can play a unique lighting display however this will be time coordinated to the other power units.

A final feature of the DFS200 system is the ability for lamps to fade. Conventional festoon lighting systems can only switch lamps on and off. With the DFS200 system any number of lamps can be set to fade up or down. The fade period is adjustable over a wide range. The ability to fade adds a new dimension to festoon lighting displays especially when combined with the ability to coordinate large numbers of lights. Fading enables the production of large flowing colours of light or subtle softly changing lighting effects.

The DFS200 SYSTEM – Technical Description

The system comprises the following components:

DFS200 Power Supply

Main features of the DFS200 power supply are listed below -

- Control of up to 200 48V 5W lamps.
- Accepts removable memory card for permanent non volatile storage of custom lighting control sequences.
- Protection from lamp wiring faults.
- Lamp data updated every 0.05 seconds (20 times per second!).
- RS232 input to upload program data from a PC or notebook.
- Any number of power supplies can be easily synchronized using a simple master slave system via a two core cable between supplies.
- Strong IP66 steel enclosure with cable glands.
- One easily replaced PCB assembly for ease of repair.
- DMX data converter version available for integration into DMX controlled systems.
- Remote start –stop control facility available.
- 110 / 230VAC input.
- Comprehensive self diagnostic system with fault indication via coded flashing indicator. Specific flash sequences are provided for the following
 - Internal fuse failure.
 - Output short circuit.
 - Memory card download active.
 - DMX Sync received.
 - Driver failure.
- CE approval as standard.
- UL approved version available.

Memory Card

The memory card holds the user program for lamp sequence control. Up to 30,000 scenes can be stored in a single memory card. The memory card is programmed via a PC or laptop when fitted to the power supply. The memory card is easily removed and re fitted in case of power supply failure.

The DFS200 SYSTEM – Technical Description

Lamp Unit

The lamp unit has the following features:

- IP67 rating for long term outdoor environmental protection.
- Drives standard 5W 48V Baton lamp.
- Includes lamp filament pre-heater to extend bulb life by typically 3-5 times.
- Easy connection/disconnection from festoon cable with no assembly tools required.
- Each lamp has a unique address programmed during manufacture. The lamps are labeled with the address visible.
- Lamp address can be reprogrammed using the hand held programmer described below.
- Each lamp accepts four commands –
 - Lamp on
 - Lamp off
 - Lamp fade up (fade time 0.1 – 180 seconds).
 - Lamp fade down (fade time 0.1 – 180 seconds).
- Accepts standard or Halogen lamps.
- Damage to cable minimized through unique cable piercing pins.
- Easy to fit surface mount or through panel mounting clip.
- Protected against lamp contacts short circuit.

Software

This is an easy to use graphical system for developing custom lighting displays. Up to 1000 lamps can be arranged in any pattern on screen. This pattern forms a layout file which can be saved. Once the layout is complete the state of each lamp can be set to form a scene. The scene duration and fade time for the scene can also be programmed. Scene durations of between 0.05 seconds and 50 minutes are available. The fade time range is 0.1 to 180 seconds. Up to 30,000 scenes can be created.

Once completed the lamp control program is downloaded to the memory card in the power supply via a standard RS232 link.

Hand Programmer

This is an optional feature intended for higher volume users. The hand programmer plugs into the lamp unit in place of the lamp. Once inserted the hand programmer can reprogram the lamp address. The hand programmer also verifies correct lamp unit operation.

DIGITAL FESTOON – DFS200 SYSTEM (IP67)

A standard two-core festoon cable that carries 48v and DMX.

Up to 200 lamps per 100 metre string. 500 strings can be linked via a serial cable between PSUs.

This equates to individual control of up to 100,000 lamps.



Actual size



Individually addressed lamp holders



DMX In



Slave PSU



PSU
240 / 110v

RS232 in



Standard HO5RNH2-F 2.5

48v (20 amps) + data out