

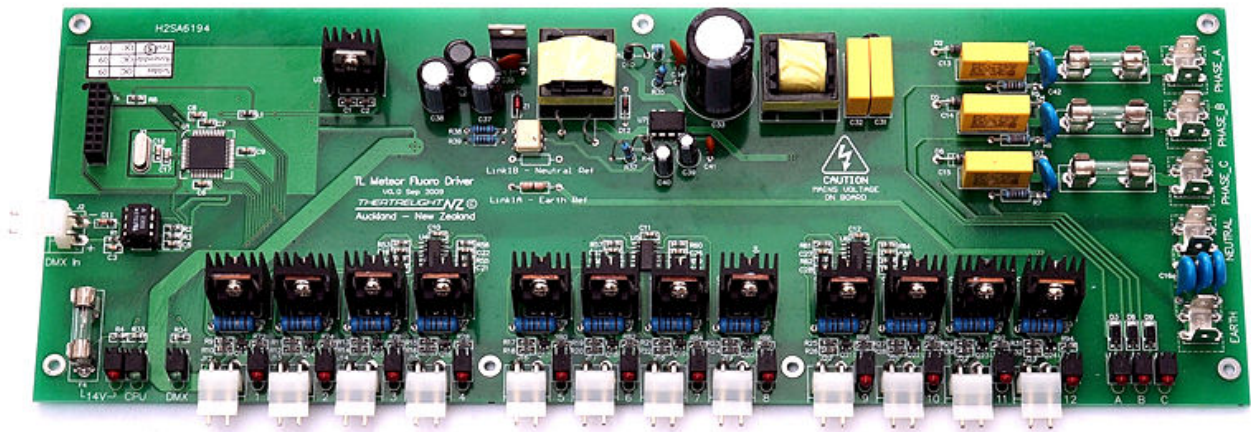
THEATRELIGHT NZ

Meteor F Fluorescent Controller

The Meteor F Fluorescent Controller converts DMX-512 signals to 12 variable DC outputs each of 0-10 volts at 100ma. These DMX controlled outputs can be used for dimming large scale fluorescent lighting installations of Osram (or similar make) 10 volt high frequency dimming ballasts, for controlling solid state relays for switching motors etc, or any other suitable device.

When used as a fluorescent lighting controller, each Meteor F PCB can typically control up to 1200 dimming ballasts (12 circuits each of 100 ballasts at 1ma per ballast) for energy efficient installations in theatre auditoriums, concert halls, museums, and other large public areas.

The Meteor F Controller is normally supplied fitted inside the Theatrelight Meteor wall mount dimmer, but it can also be supplied to specification in a standalone metal cabinet, in a 19 inch rack mount unit, or as a bare PCB for inclusion in other equipment.



Meteor F Controller

Specifications

Mains power

Universal power, 90-250 vac, 50/60Hz, maximum total load 15 watts. The unit may be powered from a single phase supply but is wired for inputs from 3 phases for security under phase fail conditions. The mains connectors are 6.3mm Utilux tab connectors.

Mains Fuses

3 x 1amp Slow-blow 20,, x 5mm fuses, one fuse per input phase.

DMX input

The controller accepts a standard DMX-512 signal input via an electrically isolating opto-coupler. Normally Output 1 level correspond to DMX level 1, 2 to 2 and so on. When used as a standalone controller, the PCB may be supplied with any DMX start address specified at time of order (see also below under Standalone Usage). In standalone mode the number of Meteor F cards on a single DMX line should be limited to 16. The use of DMX splitters such as the Theatrelight SP4 or SP8 is advisable to ensure clean signals and security of control The DMX input connector is a quick connect Utilux 2 pin 5mm female connector.

DMX control

When the DMX input is derived from a Meteor, the 12, 10 volt outputs of the Meteor F board reflect the DMX levels used to drive the 12 dimmers of the Meteor. The Meteor dimmer levels used are output after the patch, and after min, max etc but before any NonDim setting. This allows the dimmers (set as Non-Dim) to act as a power switch to turn on or off the fluorescent ballast power supplies, while the Meteor F controller outputs a dimmed level on the same DMX channel (see also below under Meteor Cabinet Usage).

Outputs:

The control board outputs 12 analog levels, each of +10v maximum. Each output can supply up to 100 ma at +10 volts DC, enough to drive up to 100 high frequency ballast control inputs in parallel, or 1200 ballasts if all 12 channels are used. The outputs are current limited to ~120 ma, and are short-circuit proof. The output connector are quick connect Utilux 2 pin 5mm female connectors.

Output Reference

The output common negative common connection may be referenced on the PCB to either Earth or Neutral by fitting a fusible link. The common line may also be left floating if required for reference to the common of external equipment.

LED indicators

LED are fitted to show the presence of:

Phase inputs (Red, 3 LEDs)

14 volts internal power (Red)

DMX OK (Green)

CPU OK (Green)

Outputs (Red, 12 LEDs). These LEDs mimic the dimmed state of the 10 v outputs (and any short circuit on the output).

Dimensions

The PCB measures 115mm wide x 320mm long. Components require 35mm clearance above the top surface of the PCB

Mounting

The PCB is designed to mount on 7 Nylon standoffs, diameter M3.

Meteor cabinet usage

When built in to a Meteor dimmer cabinet, the Meteor F output levels mimic the Meteor control levels: each control level may be patched to any DMX address (including all channels on the same DMX address), and each channel may be preset with its own Minimum, Maximum, Off, Proportional, and Test levels. In this mode the Meteor dimmers are normally set to Non-Dim mode, and are used to switch power On or Off to the fluorescent ballasts, while the 0-10v outputs from the Meteor F card control the fluorescent lighting levels. Each Meteor dimmer can be set to switch at a programmable level, normally 10% to match the 1v minimum control level of the fluorescent ballast. The On/Off switch timing is synchronized to mains zero cross for minimum interference to audio or video lines.

Meteors fitted with a Meteor F controller card may be controlled from Theatrelight TLNet Wallplates where preset scenes are required, or by any DMX control desk. Fluorescent lighting may be mixed with incandescent lighting: any number of incandescent lamps may be controlled at the same time by using normal Meteors set to the same DMX address (or TLNet settings) to supply the incandescent circuits.

Standalone Usage

The Meteor F controller can be supplied as a bare PCB, or fitted with standoff insulators with connectors ready wired to terminal strips for ease of installation. The connectors include:

DMX Connector: Neutrik 5 pin chassis mount female to Utilux 2 pin female

Power Connectors: 5 x Utilux 6.3mm tab connector to 5 way 10 amp terminal strip

Output Connectors: 12 x Utilux 2 pin connector to 5 amp terminal strip

The PCB can also be supplied fitted in a wallmount cabinet, or as a 19 inch Rack mount unit to specification. When used standalone, the DMX start address for the 12 output channels should be specified at time of order.

Inquiries:

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