



Artistic Licence



daliPSU quad

User Guide



Please read these instructions before using the product.

This product has been designed & manufactured for professional use only. It should only be installed by a suitably qualified technician and in accordance with electrical regulations in the country of use.

Unless directed in the instructions there are no user serviceable parts inside the outer case of this product.

Always disconnect from the power supply when not in use.

Any specific IP rating, where appropriate, is given in the instructions. Unless otherwise stated this product is designed for indoor use only. If used outdoors it **MUST** be installed in an appropriate IP rated cabinet. Do not allow this product to be exposed to rain or moisture. Do not allow liquid to penetrate the product.

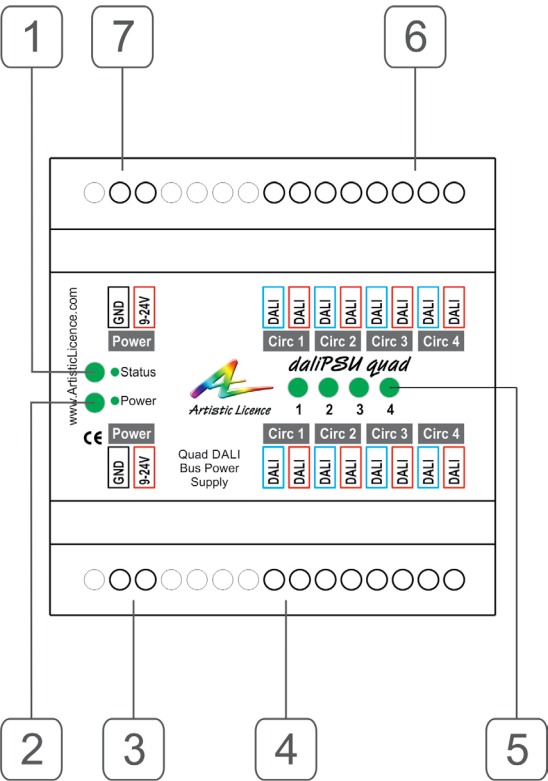
Please recycle all packaging.

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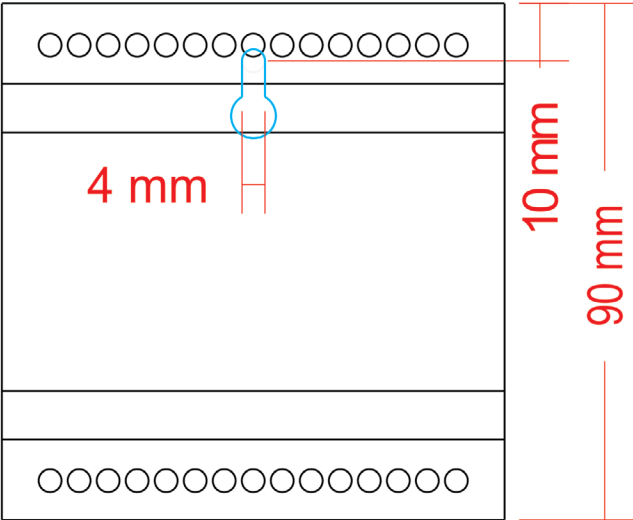
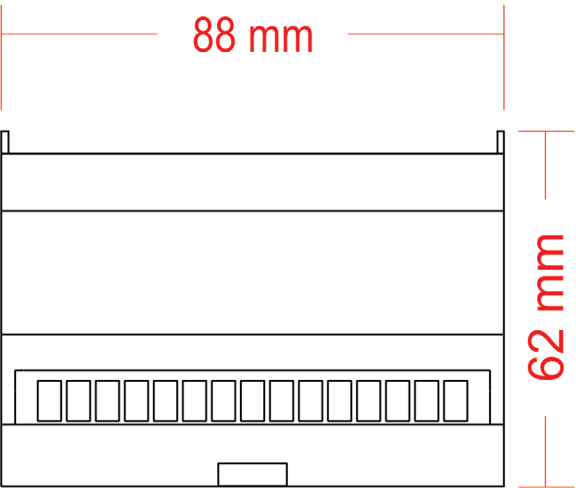


Connections



Reference	Type	Description
1	LED indicator	Status
2	LED indicator	Power
3	Power connection	DC power input
4	DALI bus connection	Circuits 1-4
5	LED indicator	DALI activity on each circuit
6	DALI bus connection	Circuits 1-4
7	Power connection	DC power loop

Mounting Diagram



Overview

In a DALI system, each circuit (of up to 64 ballasts) must have a DALI Bus PSU to provide the voltage on the line.

daliPSU quad is a DALI Bus PSU with four outputs (enabling it to power four DALI circuits).

It has two connections per output to facilitate daisy chain connection, providing easy installation into new or existing DALI systems.

Each output has a separate indicator LED that indicates data transmit/receive and short conditions. daliPSU quad requires a 24 VDC power supply (such as PSU-24-2-FER).

daliPSU quad complements the Artistic Licence product **DMXtoDALI quad**, which allows a DMX controller to command DALI ballasts.

Summary of Key Features

- Four 16V, 250mA current-limited DALI compliant power bus outputs
- Short-circuit proof outputs
- Each output has two sets of connectors to facilitate daisy chain connection
- LED indicators show presence of DALI activity, 24V input supply voltage and DALI bus voltage
- Fully accessible screw terminals for easy connection
- DIN Rail or surface mount
- All outputs align with DMXtoDALI quad terminals
- DMXtoDALI quad and daliPSU quad can be powered together by the same 24V PSU

DALI background

DALI was primarily designed for commercial lighting to respond to the growing demands of energy efficient lighting systems. It was

developed to provide two-way communication between controller and ballasts.

The most common DALI device is a fluorescent ballast. Compared to DMX512, speed has been sacrificed in favour of flexibility and ease of use.

Each DALI circuit must have a DALI Bus PSU (such as daliPSU quad to provide the voltage on the line). There can be no more than 64 ballasts on a single bus (this corresponds to one circuit). Ballasts being used for the first time require commissioning to give them a unique short address. **Commissioner dali** can be used for this.

Power

daliPSU quad must be powered from an external 24 VDC power supply. It is recommended that a ferrite core be fitted onto the DC power lines as close as possible to the daliPSU quad. This protects the unit from any electrical spikes that appear on the DC line.

There are two power connections, either of which can be used as input or loop. The loop connection can be used to power additional units or a DMXtoDALI quad (subject to PSU current rating).

DALI Connections

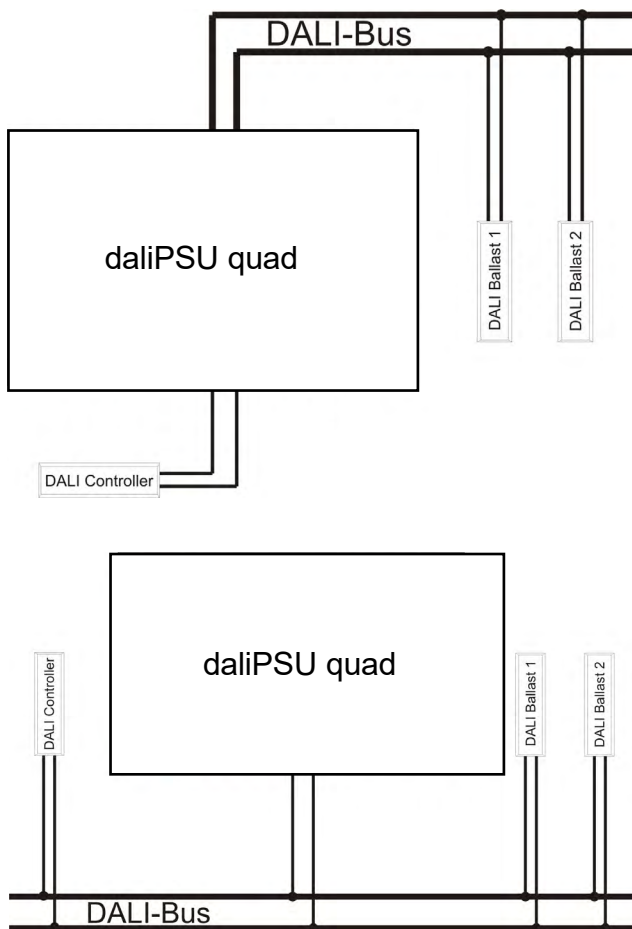
The daliPSU quad can be added to the DALI circuit at any point (assuming the system has been configured to the DALI specification).

The daliPSU quad can be put inline or joined to the DALI circuit (see the diagrams on the following page).

Either connector can be used for input or loop. The connections are polarity-independent.

DALI connection configurations:

Inline (above); Joined (below)



LED Indication

daliPSU quad has front-panel LED indicators that display the following information:

Power:

Static = power input connected

Status:

Static = Internal 16V system operating

DALI 1 - 4:

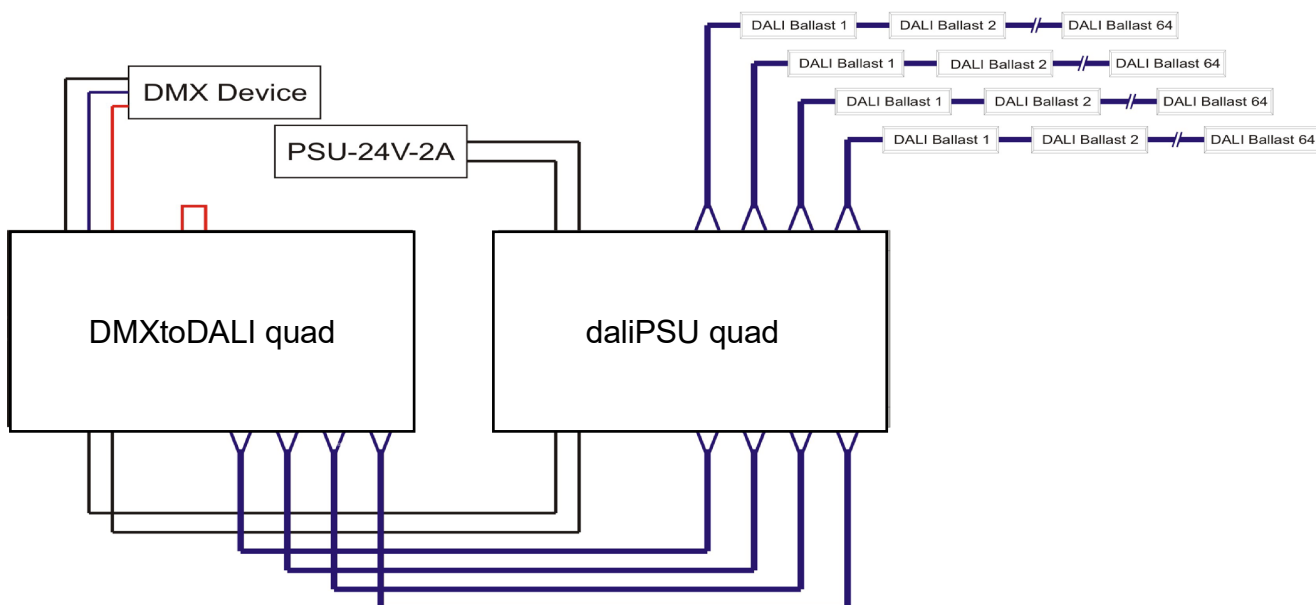
Static = Short circuit on the output

Flashing = Data is being transmitted

Application Diagram

The diagram below shows how daliPSU quad could be utilised in a typical application.

A DMXtoDALI quad is controlling a DALI circuit (64 ballasts) on each of its 4 outputs. One common 24V PSU is used to power the DMXtoDALI quad and the daliPSU quad.



daliPSU quad Specification

Mechanical <ul style="list-style-type: none">• Mounting: DIN rail (35 mm) or surface• Material: Polycarbonate Plastic - UL94-V0 rated• Overall Dimensions: 88mm / 5M (W) x 90mm (H) x 62mm (D)• Mass: 0.2 kg• Country of manufacture: UK	DALI Connections <ul style="list-style-type: none">• 2-pin Screw Terminal DALI Input (4 no.)• 2-pin Screw Terminal DALI Loop (4 no.)
Environmental <ul style="list-style-type: none">• Operating temperature: 0°C to 40°C• Storage temperature: -10°C to +50°C• Operating relative humidity (max): 80% non-condensing• IP rating: IP20 indoor use only• Certification: CE, WEEE, RoHS• Warranty: 2-year (return to base)	LED Indication <ul style="list-style-type: none">• DALI Activity (per circuit)• Input supply voltage• DALI bus voltage
Power & Electrical <ul style="list-style-type: none">• Input voltage: 24 VDC• Power input/loop connector: 2-pin screw terminal (2 no.)• Input power (max): 25W• DC fuse: Internal resettable fuse for control electronics	Package Contents <ul style="list-style-type: none">• daliPSU quad
DALI outputs <ul style="list-style-type: none">• Voltage: 16V @ 250mA per circuit (4 no.)• Current (max): 1A• Internal resettable fuse: 350mA per circuit (4 no.)	Ordering Info <ul style="list-style-type: none">• Product code: daliPSU quad
	Accessories (not included) <ul style="list-style-type: none">• PSU-24-2-FER• Commissioner dali

Compliance

All Products manufactured or sold by Artistic Licence Engineering Ltd are fully compliant with the appropriate CE, UKCA, FCC, and RoHS regulations. Product specific information is available on request.

Waste Electrical & Electronic Equipment (WEEE)

Artistic Licence is a member of a WEEE compliance scheme and will happily recycle any of our products that you, at your expense, return to us.

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Warranty

All products are covered from date of purchase by a two-year return to base warranty.

By return to base, we mean that the customer is responsible for all costs of transport to and from Artistic Licence.

Returns will not be accepted without prior authorisation. In order to discuss a request to return goods, please email:

Sales@ArtisticLicence.com

**UK
CA**

Compliance



daliPSU quad is CE and UKCA compliant
when installed in a shielded and earthed
metal case



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