

DALI to 0:10V Converter

User Manual

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Creative Lighting can be contacted through your local distributor.

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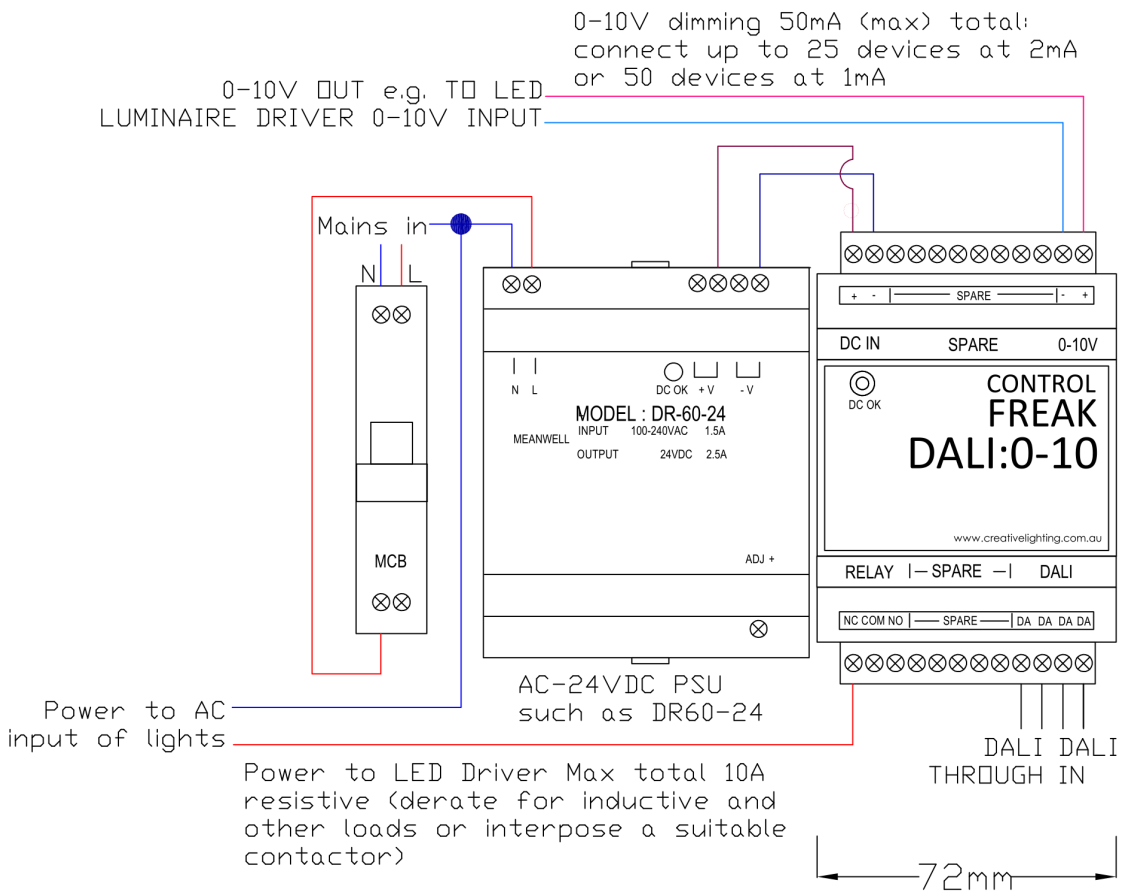
Description

The DALI to 0:10V Converter is a din mount 0:10V controller with the following characteristics:

- Sinks or sources current automatically (50mA maximum)
- Supports DALI broadcast, addressing, groups and all standard DALI settings
- UL94V0 material 4 pole DIN mount case
- Removable 12-way terminals top and bottom for easy wiring, 250VAC rated.

DC Supply

For the 0:10V Converter to work it needs to be powered with a 24vdc (>100mA) source. This supply is connected to the 0:10V Converter supply input screw down terminals marked DC IN + & - (though it is not polarity sensitive). When DC supply is present, the “DC OK” status led will illuminate. NOTE: Power supplies are available from Creative Lighting; when selecting a power supply, ensure it complies with all statutory requirements and meets the required values as outlined above.



0:10v Connection

Connect the 0-10V connection from the Converter to the 0-10V input of the 0:10V devices. NOTE that unlike DALI, 0:10V is polarity sensitive and must be connected accordingly.

Optionally connect the active to the normally open (NO) input on the relay and connect the active running to the 0:10V devices to the common (COM) on the relay. As not all 0:10V devices will dim down to off with the 0:10V signal, an internal relay is used to disconnect power to them when an off command is received via DALI. This connection doesn't have to be made if the connected 0:10V devices can dim to down to off. A normally closed (NC) contact is also given which operates in opposite to the normally open (NO) input. This is provided for specialty cases and isn't needed during normal use.

The DALI to 0:10V Converter can sink or source 50mA of current on the 0:10V line. Typical 0:10V devices use 1mA each and up to 2mA. The maximum number of 0:10V devices then varies between 25 to 50 devices depending on their current requirements. As 0:10V systems do not support addressing, all connected devices will be controlled together. The range of 0:10V output is from 70mV to 9.48V (devices typically reach their min and max before this).

DALI Connection
Note: Voltage measured under no load. Results may vary slightly under different load conditions.

The DALI line wires are connected in the screw terminals at the bottom right of the enclosure. NOTE: DALI is not polarity-sensitive. DALI Standard requires a minimum cable diameter of 1mm sq (larger for longer runs) and not more than 2VDC voltage drop.

The 0:10V Converter will appear and behave like a single DALI luminaire. It will take one short address and supports all the standard DALI commands and settings such as broadcast, addressing, groups, scenes, fade times, etc.

The DALI to 0:10V Converter will directly translate DALI arc levels to 0:10V values. This means it won't follow the DALI dimming curve and will provide a linear output, as such the same ratio is kept. See the table below for example conversions:

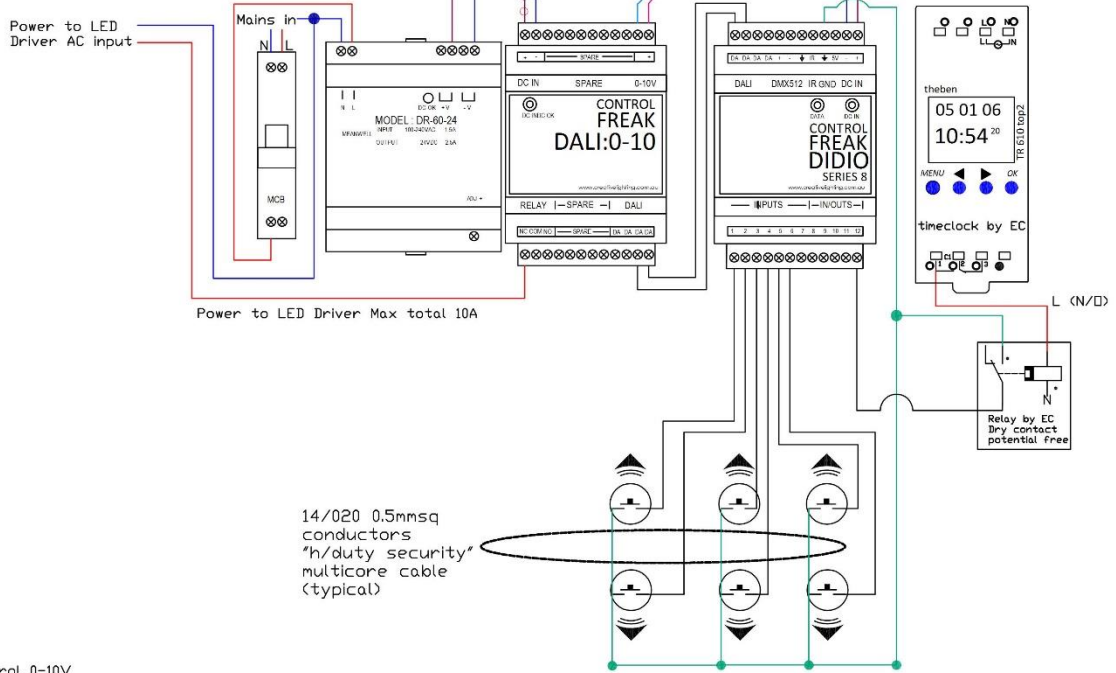
DALI Arc Level	% of DALI Maximum (254)	0:10V Value	% of 0:10V Maximum (9.48)
64	~25%	2.37V	25%
127	50%	4.69V	~50%
191	~75%	7.06V	~75%

0-10V OUT e.g. TO LED
LUMINAIRE DRIVER 0-10V INPUT

0-10V dimming to LED Driver Max total 50mA

Power to LED
Driver AC input

Power to LED Driver Max total 10A



14/020 0.5mmsq
conductors
'h/duty security'
multicore cable
(typical)

Momentary mech switch plates
EC to position, fit wire and
label or engrave
to client preferences
mech functions to be
specified by project
Engineers

Generic
Lighting Control 0-10V
Drawn LS 140314 All rights reserved
DWG REF:
REVISION: -
ISSUE:

Notes:
1) PRINT: A3 minimum, in colour
2) DALI: Is not polarity sensitive (though it
does have a polarity)
3) To be read in conjunction with all other
project documents and drawings

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Creative Lighting
.com.au

REGISTRATION – DALI to 0:10V Converter

Please complete this form and fax to 07 32828700 to register for manufacturer's warranty.

Name of project _____

Location of project _____

Brief description of project _____

Purchaser Name _____

Purchaser Company _____

Contact Details – Email _____

Contact Details – Telephone _____

Date of Purchase _____

Purchased from _____

Other products

Creative Lighting is now celebrating its 23rd year with products that are used and installed around the world as far afield as Sweden and the Australian Antarctic Territory. Creative Lighting also manufacture:

[SLAMMO](#) led dimmers for DALI DMX512 DSI and RDM

[DIDIO](#) Scene Controllers, Group Controllers, Sequencers, DMX-DALI interfaces, Serial to DMX interfaces

[LIDA](#) DALI AC controllers for Contactors/relays, Fans and HID loads

[ADDICT](#) tools for DALI, DMX and RDM with optional wireless (up to 900m indoors, 22km outdoors)

[UBi](#) patented DALI Test and Distribution and [UBi Power](#) DALI Test, Power & Distribution devices

[DALI to 0:10V](#) translators

[DMX512 Splitter](#) Repeaters

[Universal Lead sets](#) 600VAC + rated

As an OEM and strategic partner with some major manufacturers, Creative Lighting have agencies for supply of some familiar brands you might not know we supply.

SYLVANIA LIGHTING OSRAM PHILIPS TRIDONIC MARTIN SHOWTECH RAYDZ

TRIDONC TAKEX MEANWELL W-DMX CABAC HIBOX CLIPSAL

Lamps Luminaires Power Supplies Special Effects Moving Lights LEDs Ballasts

Sensors Wireless DMX Cable Glands IP66 boxes Line Controllers

CAD

Creative Lighting can also provide scalable CAD drawings and blocks of the DIDIO and our other products.

Warranty

Congratulations on acquiring this genuine Control Freak® product (“the goods”) which is guaranteed to the purchaser for a period of 24 months from the date of original purchase from Creative Lighting and its authorised agents and resellers.

Under normal use and for applications for which this product was designed, this Control Freak® product and all component electronics are warranted to be free of defects in material and workmanship.

In the unlikely event that the goods prove to be defective, Creative Lighting will decide either to repair or to replace the defective components. Before that can happen, the goods must first be returned to Creative Lighting at the purchaser’s cost.

Australia only: If we determine that the goods are defective, we will not only repair or replace the defective components at no cost to the purchaser; we will also pay the cost to return them to the purchaser by our standard freight method, with any cost to reinstall the goods borne by the purchaser. This Guarantee specifically excludes faults which arise as a result of alteration, tampering, misuse, abuse, accident, vandalism, negligence, improper installation, or the use of other manufacturer’s products in combination with the goods except where such use of other manufacturers’ goods is authorized by us. All other warranties inclusive of any warranties of merchantability or fitness for any particular purpose whether expressed or implied are hereby expressly negated to the fullest extent permissible by law. Under no circumstances will Creative Lighting be liable for reinstallation or freight except in the case of freight within Australia. In no event shall the manufacturer be liable for consequential damages.

This Guarantee constitutes the sole and exclusive remedy to the purchaser for proven defects.