eDIDIO® S10

ethernet **D**ALI/DMX & **I**nfrared options; **D**igital **I**nputs/**O**utputs

Ethernet-enabled modular DIN-mount Lighting Controller for DALI/DMX$_{512\text{-}A}$

Introducing the 10th iteration in the DIDIO/eDIDIO controller family, the eDIDIO S10: completely re-imagined as a modular lighting control solution suitable for building automation, colour control, translation and interfacing. An eDIDIO can be ordered as:

DMX controller – 1 Universe plus optional second Universe

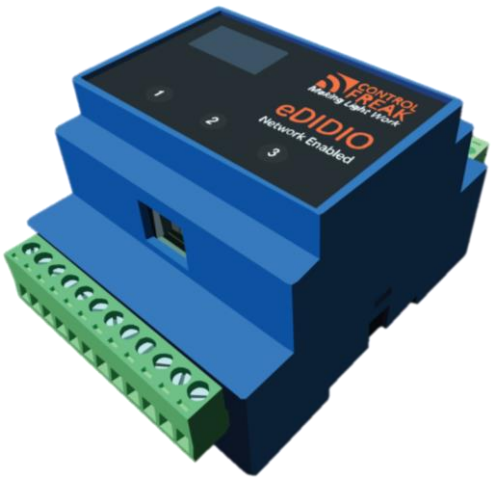
DALI controller – 1 DALI Line plus optional second Line

Translator – DMX to DALI / DALI to DMX

Sequencer – DMX or DALI

Interface – LLI up to 12 inputs or 8 inputs/4 outputs to DMX & DALI

– Ethernet TCP/IP & IR & Serial to DMX and DALI*



Features

- **Modular Control**
  - Modular hardware allows for any combination of DALI and DMX outputs while still maintaining proper DMX signal conditioning and DALI separation.
- **Open Protocol**
  - Creative Lighting embraces open protocols and allows any TCP-IP capable system to interact with the eDIDIO. Our 'Protocol Buffers'-based API enables systems written in most languages to integrate with the eDIDIO quickly and easily.
- **Easy Installation**
  - DIN Mounted with 'plug and play' 12-way connectors. If the controller is moved or access is required, the 12-way connectors can remain behind, leaving the existing wiring connected.
- **Multi-Line Control**
  - Any interface or trigger in the system can call a command over multiple connected lines.
- **Easy to use configuration**
  - An easy-to-use interface provides quick configuration access/changes; uniquely, each section is treated individually so for example, inputs can be programmed without erasing schedules.
- **Spektra**
  - Control Freak Spektra provides sophisticated colour control of any type of coloured light using DALI or DMX, that is uniquely easy to program and run complex sequences and schedules
    User-selectable light types of up to 6 colours per light – from white to R/G/B/A/WW/CW - for up to 128 DALI devices, or 1024 DMX channels.

*API, Windows-compatible GUI, and Android apps available. IR and RS232 Serial optional

Capabilities

- DALI (Version 2 compatible). Up to 128 addressed devices
- $DMX_{512\text{-}A}$/RDM. Up to 1024 channels
- Ethernet, TCP/IP, UDP Discovery, Google Protocol Buffers
- DALI and or $DMX_{512\text{-}A}$ hardware output.
- Art-Net 4 Node – 2 DMX Outputs

Springfield Land Corp chose eDIDIO Spektra for colour control over > 60 lights on Sinnathamby Boulevard 2018

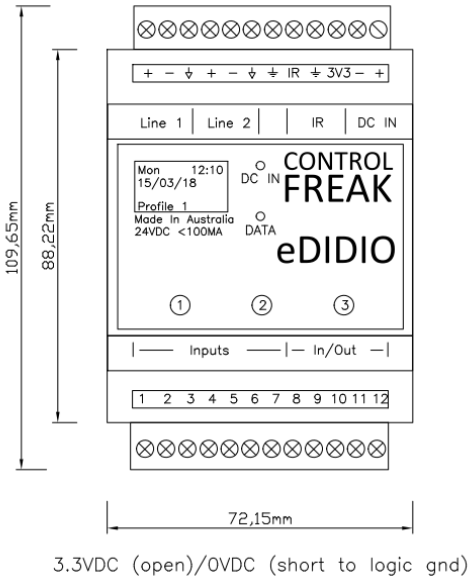


Figure 1 - CAD blocks and wiring diagrams available

Overview

Peripheral	Count	Technical
Inputs	12 or 8	3.3VDC, Hardware Debouncing
Outputs	0 or 4	12-24V, Software Selectable Optically-isolated
IR	1	3.3V, RC5 Infra-Red remote control optional
Ethernet	1	10/100 BaseT, RJ45 – Google Protocol Buffer 3 ○ NTP client service available ○ Legacy commands for older/existing systems ○ UDP for device discovery only/TCP-IP commands
DALI Sensors	10 per line	Tridonic MSensor When prepared by Creative Lighting, the sensor's Indirect Master Mode does not take up a DALI short address, traffic on the DALI line is minimised and sensor-based actions are not restricted. User-configurable for motion-only or motion plus PI Algorithm for daylight harvesting, and directional grouping with other sensors.
Lists	32	Lists of 256 steps, looping functions, up to 16-hour step time.
Burn-In	2	Independent group burn-in controllers, programmable durations up to 100 hours. Any level over Arc level of 0 results in a MAX command.
Protection		Over Current Protection Over Voltage Protection Polarity Protection (VDC in) Transient Protection
Processor	1	ARM Cortex M4
Memory	3	16MB External 1MB Flash 128kB RAM + 64kB Reserve
Temp		Up to 50 degrees Celsius ambient
Status & Diagnostics	6	Low battery indicator icon on OLED screen Over temperature indicator icon on OLED screen Ethernet connection indicator icon on OLED screen DC in LED on membrane keypad Data LED on membrane keypad Data LED on ethernet PCBA I/O real-time status display on OLED screen

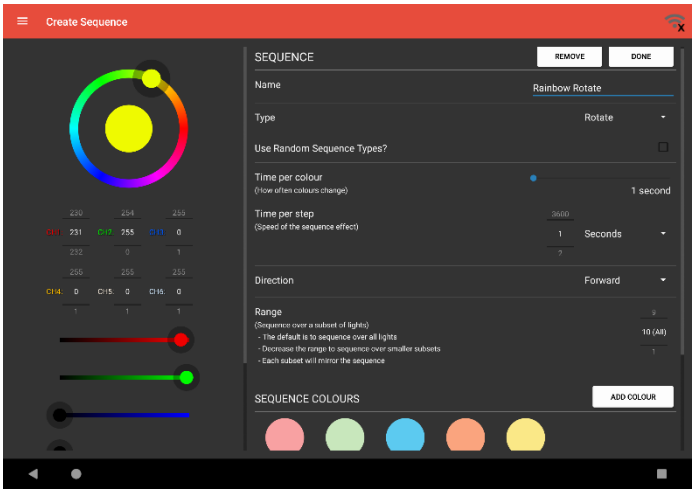
Spektra

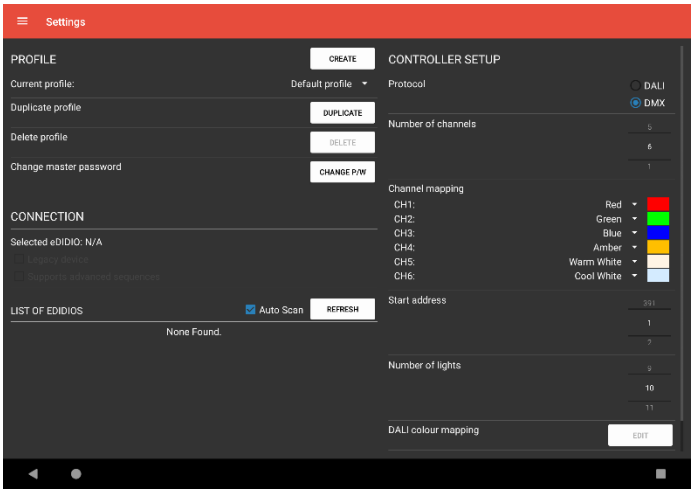
Dynamic sequence and colour control at your fingertips.

Built into the eDIDIO S10, Spektra allows for sequences, themes, and static colours to be configured.

Spektra can be used to easily create colourful projects using a variety of sequence types, randomisers, and time control with DALI or $DMX_{512\text{-}A}$ luminaires.

Store up to 144 Sequences and 16 Themes, and easily schedule them over a year. 5 Independent zones for control of different areas.





Robust, Modular Application

The latest application supports channel mapping up to 6 colours. Any combination, from the usual RGB, to RGA, RGBW, and RGBAWW. Custom colours supported.

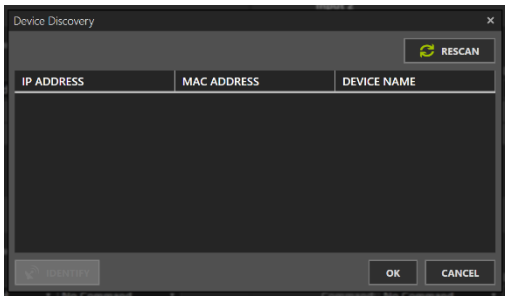
Different profiles for different projects, easily connect to each site just by changing profile.

Automatic discovery of connected eDIDIO S10 controllers means no fiddling with IP ranges or advanced network knowledge required.

Wi-Fi plus optional 4g Colour Control Network.

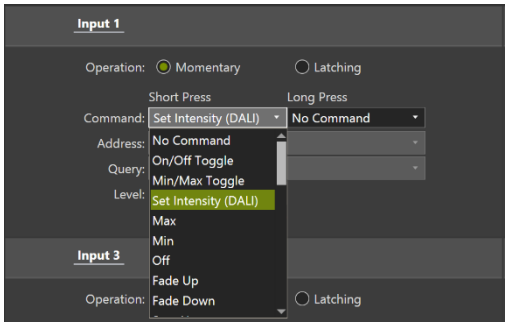
Configurator

PC application for easy configuration of the eDIDIO S10. Designed by engineers who have spent years commissioning projects on site, the application makes it simple to program any feature of the eDIDIO S10. No user manual required: the program has straight-forward sections and individually programmable tabs. Discovery generates a list of controllers over a wide range of network ranges. DHCP (standard) or optional factory preset static IP address to suit your project.



The commands are context-sensitive, preventing incorrect configurations and providing intuitive and appropriate commands.

- Automatic eDIDIO Discovery
- Individually programmable features
- Save/Load/Read Configurations
- Context Sensitive, Logical User Interface layout
- Multiple Profiles for Day/Night Setting



Technical

Physical	
Size (l) x (w) x (h) mm – excluding terminals – including terminals	105x72x88 105x72x108
Weight (grams, approximate)	170
Materials - case	ABS BLUE Anti-flammability to UL94V0
Power	
Input – range (>100mA recommended)	24VDC
Battery backup for real time clock	3VDC CR2032
Protection	
Polarity reversal on DC input	Immune
Over-current protection	Yes
Transient protection	Yes
Keypad	
Indicating status LED	DC In, Data, & Data (Ethernet)
Keypad – 3 key membrane type	Momentary
Special	
Clock	Internal RTC with battery back-up
OLED screen	128*64 Organic LED
Networking	MAC address & TCP/IP
Compliance	
Designed to meet or exceed relevant standards - Safety - EMC	AS/NZS 61347.2.1; EN 55015 + A1; EN61547+A1. CE and C Tick

Applications

The eDIDIO and its predecessor the DIDIO have been successfully used in a wide range of applications, here a just a few:

Tenancies, tunnels, roads, landscapes, signage, facades, air traffic control, railway stations, ferry terminals, poultry sheds, streetscapes, retail, fountains, water features, and playgrounds.

Since 2017, major brands have entrusted their lighting control to eDIDIOs, including:

SUNCORP & TELSTRA
Signage
Sydney-Melbourne-Brisbane

HUGO BOSS
Window displays
NY-Las Vegas-Mexico-London-Soho-Berlin-Paris

QUEENSLAND RAIL
Station lighting
Helensvale-Nerang-Ormeau-Moreton Rail-Brisbane >45 Stations throughout SEQ

OTHER EXAMPLES

REEF CASINO - ALICE SPRINGS SUPREME COURT – SYDNEY AQUARIUM – CAIRNS AQUARIUM – BRISBANE CITY COUNCIL – TREE OF KNOWLEDGE BARCALDINE – SOUTHBANK PARKLANDS – GOLD COAST CITY COUNCIL

Product details subject to change without notice. Not all features are supported in some applications.