

# DLEDC401

## 4 x 50W LED Controller Instruction Manual



### features

- **Single Phase Supply** - 230V 130 Watts
- **4 x Voltage Mode LED Outputs** Rated at 4A each (maximum total box load is 4A)
- **Outputs available in Common Cathode or Common Anode modes**
- **Outputs Available in 24V or 12V**
- **RS485 Serial Port Supports DyNet and DMX512 protocols**
- **Many Control Options** - Control of this device can be via a combination of methods, eg. serial control port, relay contacts, push button wall stations, infrared receivers and time clocks
- **Simple Installation** - DIN Rail mount facilitates installation. All connection terminals are accessible without disassembly

**WARNING**  
ISOLATE FROM MAINS SUPPLY BEFORE REMOVING THIS COVER  
NO USER SERVICEABLE PARTS INSIDE  
SERVICE BY QUALIFIED PERSONNEL ONLY

To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Do not energise unless the front cover is in place. This device must be earthed. Installation, programming and maintenance must be carried out by qualified personnel.

**Read Instructions** – We recommend that you read this Instruction Manual prior to commencement of installation.

**Special Programming** – This device will only operate in basic modes unless programmed via a computer. If programming is required, contact your local agent for details. Once the data cable is connected to the devices, the factory default settings will allow any control panel to operate all channels in all controllers.

**Check Connections** – Tighten all load-carrying screw connections, as vibrations from transport can cause terminal block screws to become loose.

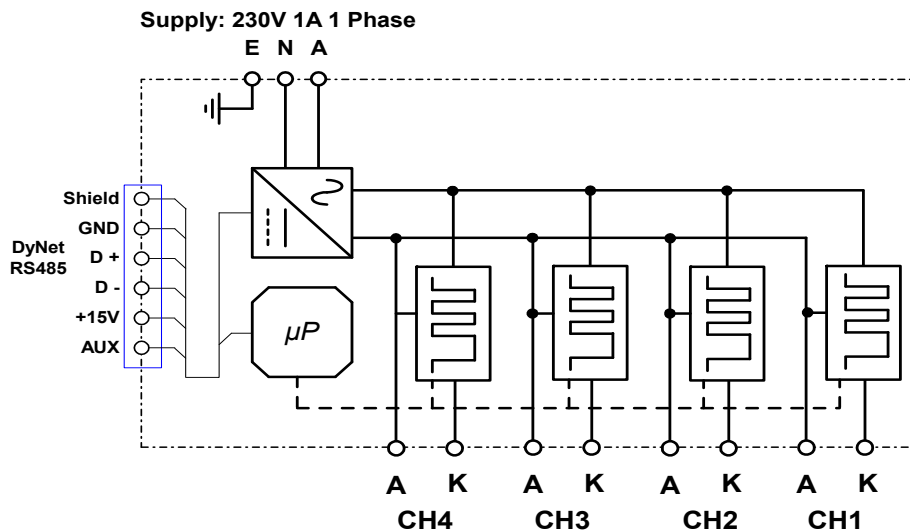
**Power Sources** – This device should only be operated from the type of supply specified on the front cover. This device *must* be earthed.

**Output Circuits** – This device is available in different types of output configuration (common cathode / common anode and 24V / 12V) ensure that the device is set to the correct output mode for your intended load. Failure to do this may damage this controller and / or your loads.

**Mounting Location** – Install in a dry, well-ventilated location. Controllers may emit some mechanical noise. Take this into account when deciding the mounting location.

**Data Cable** – Use screened, stranded RS485 data cable with three twisted pairs. Segregate from mains cables by 300mm minimum. Connect devices in a 'daisy chain'. A data cable that is connected to an energised device is live. Do not cut or terminate live data cables.

### electrical diagram

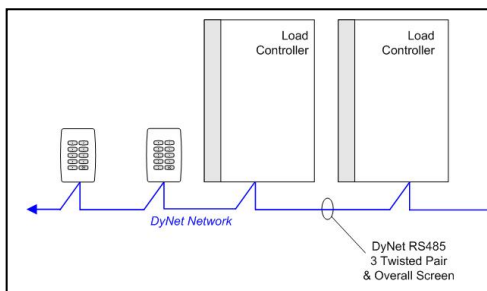


## installation steps

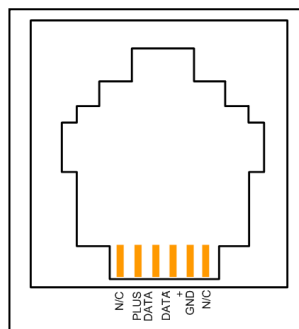
1. Mount the device on a DIN rail inside an approved enclosure.
2. Calculate loads to ensure any channels will not be overloaded. The maximum loading of this device is as follows:  
**Maximum Channel Load: 4A**  
**Total Box Load: 4A**
3. Check the type of drive your LED array requires against the output mode of this controller. The output mode of the controller when shipped is indicated on the front panel. The output modes are changeable via solder links on the underside of the PCB, refer to the DLEDC401 config links sheet for details. The output modes available are:  
**- Common Cathode or Common Anode**  
**- 24V or 12V**
4. Connect the LED arrays to the output terminals.
5. Connect a single phase 1A feed to the control circuit supply terminals. This device must be earthed.
6. Connect data cables to the device as per diagrams below.

## connecting data cable

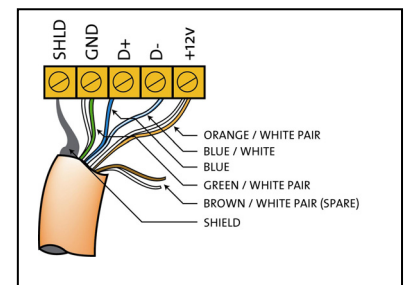
Connect Data Cable in a 'Daisy Chain'



RJ12 Socket Connections



Serial Cable Permanent Connections



## recommended cable colour coding

Green/White Pair  
 Orange/White Pair  
 Blue/White Pair

paralleled for GND  
 paralleled for +12V  
 Blue for DATA+  
 White for DATA-

## recommended cable types

Belden: 9503  
 Garland: MCP3S  
 Hartland: HCK603  
 M&M Cable: B2003CS

Dynalite: DYNET-STP-CABLE  
 M&M cable: B9503CS  
 Multicables: AWME120236209220

## product specifications

<b>Control Supply:</b>	230V $\pm$ 14% 50/60Hz Single Phase at 130W
<b>Load Outputs:</b>	4 x Voltage Mode Outputs at up to 4A per channel, Maximum box load is 4A
<b>Output Modes:</b>	Common Cathode / Common Anode, 24V / 12V
<b>Output Protection:</b>	Electronic overload / short circuit protection
<b>Supply Terminals:</b>	1 x Phase, 1 x Neutral 1 x Earth, up to 1 x 4mm <sup>2</sup> cable per terminal
<b>Load Terminals:</b>	COM, CH for each channel, up to 1 x 4mm <sup>2</sup> cable per terminal
<b>IO:</b>	1 x RS485 DyNet / DMX512 serial port
<b>DyNet DC Supply:</b>	100mA (capacity for approx 5 Smart Panels)
<b>Presets:</b>	96
<b>Compliance:</b>	CE, C-Tick
<b>Ambient Temperature:</b>	50°C max.
<b>Construction:</b>	ABS plastic DIN rail mount
<b>Dimensions:</b>	Height 85mm x Width 210mm x Depth 66mm
<b>Weight:</b>	1Kg