

DDLEDC605

LED Controller

Instruction Manual



features

- **External DC Supply** – Controller supply voltage range is selectable with internal link as 18-32VDC (standard) or 12-15VDC, can be sized to suit the LED fixture load
- **6 x 5A Voltage Mode Common Anode LED Outputs**
- **RS485 Serial Port supports DyNet & DMX512 protocols**
- **Many Control Options** – Control of this device can be via a combination of methods eg. Serial control port, relay contacts, push button control panels, infrared receivers and timeclocks.
- **Simple Installation** – DIN Rail mount facilitates installation. All connection terminals 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. The device must be earthed. Installation, programming and maintenance must be carried out by qualified personnel.

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 control 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.

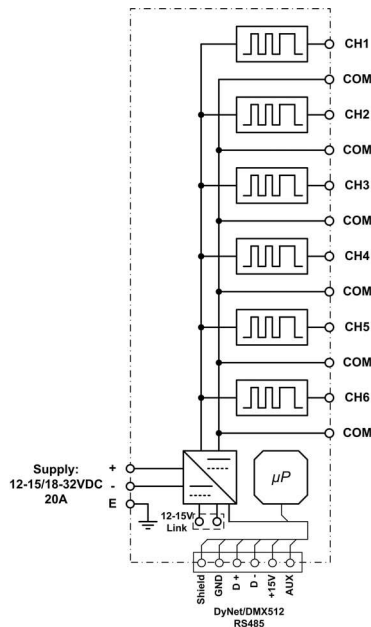
Power Sources – This device requires an appropriately sized external DC supply to operate. This DC supply should have better than 5% regulation and 1V PP ripple at full load. This device *must* be earthed.

Output Circuits – The device is designed to control 5A Voltage Mode Common Anode LED loads. Connecting this device to other load types 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 cable by 300mm minimum. Connect devices in a 'daisy chain'. A data cable connected to an energized device is live. Do not cut or terminate live data cables.

electrical diagram

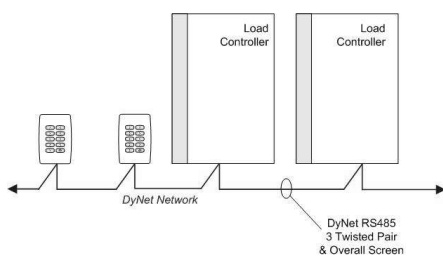


installation steps

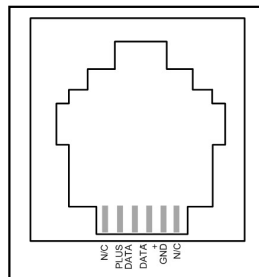
1. Mount the device on a DIN rail inside an approved enclosure.
2. Calculate loads to ensure channels are not overloaded, then connect loads to the output channels. The maximum loading of this device is as follows:
Maximum Channel Load: 5A (minimum channel load requirement is 100mA)
Total Box Load: 20A
3. Check the type of drive your LED array requires against the output mode of this controller, which is: Voltage Mode, Common Anode. Connect the LED arrays to the output terminals.
4. Determine the type of external DC supply required for your load. The nominal voltage should fall within the controller's rate supply range and be compatible with the LED loads, including provision for 0.5V internal voltage drop. DC supply should be rated at 20A if the device is to be fully loaded, have better than 5% regulation and <1V PP ripple at full load. Contact your Dynalite distributor for advice in selecting a suitable DC supply.
5. Connect the DC supply to the Supply terminals. Be careful of polarity when connecting the supply, + to + and – to –. Use a cable size that can withstand the short circuit current of the power supply you are using, with 2.5mm² cable size being the minimum. Keep the cable length between the DC supply and the DDLEDC605 under 10 meters. The device must be earthed.
6. Connect data cables to the device as per diagrams below.

connecting data cable

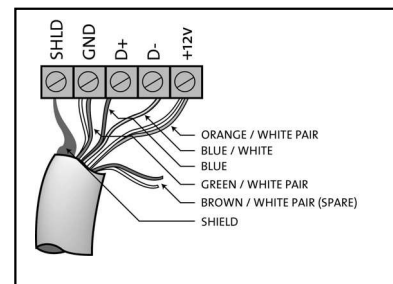
Connect data cable in a 'daisy chain'



RJ12 Socket Connections



Serial Cable Permanent Connections



recommended cable colour coding

Green/White Pair:	Paralleled for GND
Orange/White Pair:	Paralleled for +12V
Blue/White Pair:	Blue for DATA + White for DATA-
Shield or Brown/White Pair if no shield:	Shield

recommended cable types

Belden:	9503
Dynalite:	DyNet-STP-Cable
Garland:	MCP3S
Hartland:	HCK603
M&M Cable:	B2003CS
M&M Cable:	B9503CS
Multicables:	AWM E120236 2092 20
RS Components:	368-687

product specifications

Supply:	18-32VDC (standard) or 12-15VDC
Load Outputs:	6 x 5A Voltage Mode Common Anode LED Outputs
Output Capacity:	20A Box Total 5A per individual channel, minimum load requirement is 100mA
Output Protection:	Electronic overload/short circuit protection
Supply Terminals:	1 x Plus, 1 x Minus, 1 x Earth, up to 1 x 4mm ² cable per terminal
Load Terminals:	+VE, CHx for each channel, up to 1 x 4mm ² cable per terminal
IO:	1 x RS485 DyNet/DMX512 serial port
DyNet DC Supply:	100mA (capacity for approximately 5 smart panels), dependent on capacity of external DC supply
Preset Scenes:	170
Compliance:	CE, C-Tick
Operating Environment:	0° to 40°C ambient temperature 0% to 90% RH non-condensing
Construction:	ABS plastic DIN rail mount
Dimensions:	H 85mm x W 210mm x D 66mm
Weight:	1.0kg