

DDBC1200

Signal Dimmer Controller



To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Installation, programming and maintenance must be carried out by qualified personnel. All local wiring and electrical regulations must be followed when installing device.

Overview

- **Single-phase supply** – 100 - 240 VAC at 0.5A
- **12 individually controlled lighting driver channels** – each channel is individually configurable to 1-10V, DSI and DALI Broadcast
- **High output capacity** – each of the 12 channels is capable of driving the following:
 - DALI:** max 80 drivers per channel or 300 total
 - DSI:** max 100 drivers per channel or 375 total
 - 0-10V:** 50mA sink or source per channel
- **LED status indicators and override switches** – for each of the 12 outputs
- **Powerful internal PLC** – allows custom scripts to enable process control based on conditional logic
- **Dry contact interface** – factory settings enable this interface to transmit network identification information
- **Many control options** – device is controllable via a combination of methods, including a serial control port, relay contacts, push-button wall stations, infrared receivers and timeclocks

Read Instructions – We recommend that you read this guide prior to commencement of installation.

Special Programming – Once powered and terminated correctly this device will only operate in basic mode. If network terminations are correct, a new Dynalite user interface turns all lighting channels on from button 1 and off from button 4. Commissioning can only begin once the full network has been tested. Advanced functions are commissioned via Envision software. If commissioning services are required, contact your local distributor.

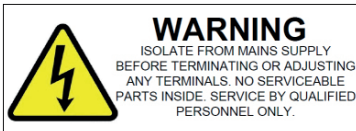
Check Connections – Tighten all load-bearing screw connections, as vibrations from transport can cause the terminal block screws to loosen.

Power Sources – This device must only be powered by the supply type specified on the front cover. This device must be earthed.

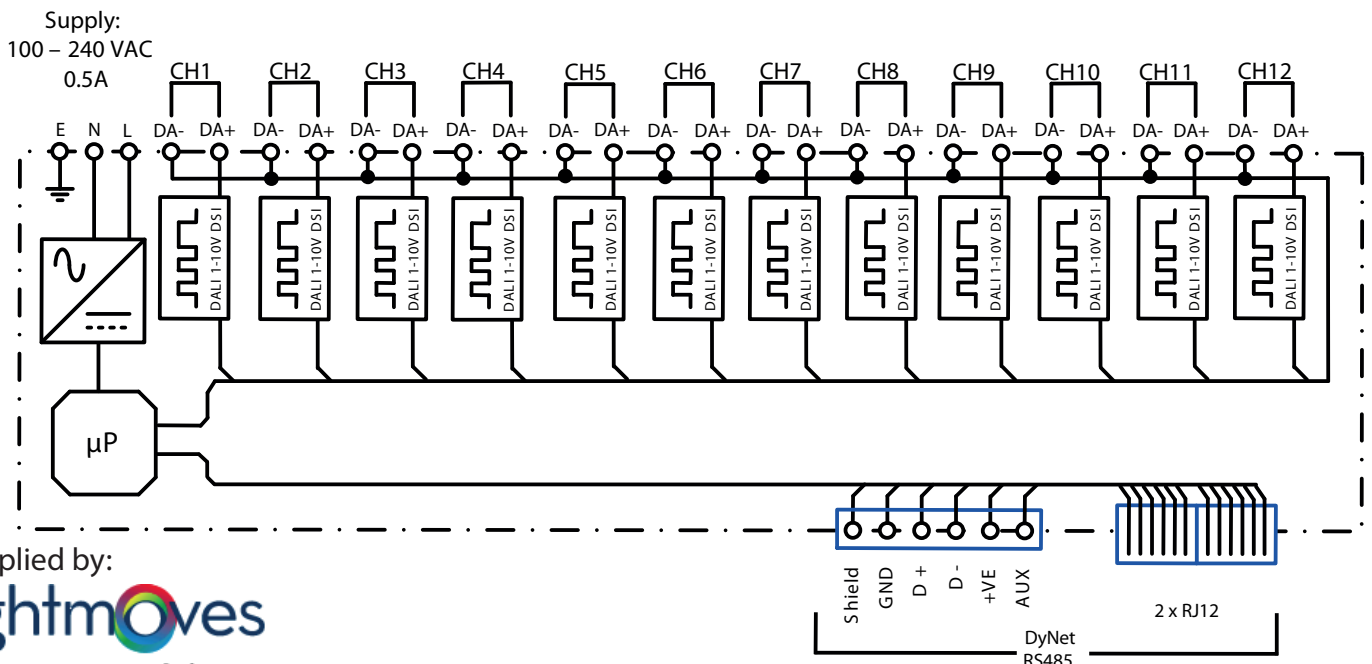
Output Circuits – The load on each circuit must not exceed the specified per-channel capacity of 80 DALI drivers, 100 DSI drivers, or 50mA sink or source for 1-10V.

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 at least 300mm. Connect devices in a 'daisy chain' configuration. A data cable that is connected to an energized device is live. Do not cut or terminate live data cables.



Electrical Diagram



Supplied by:

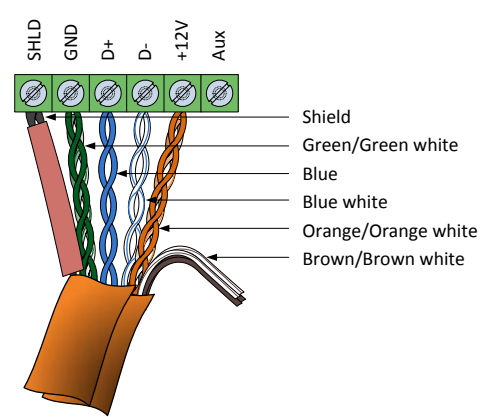
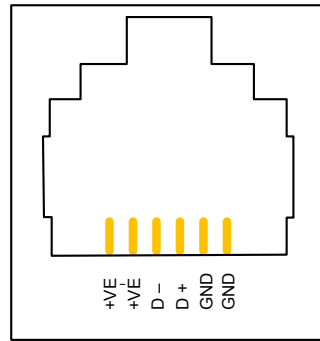
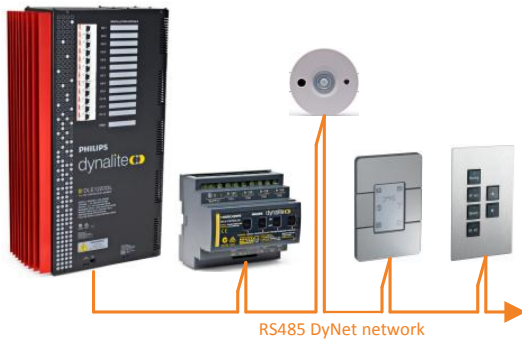


Installation Steps

1. Mount the device on a DIN-rail inside an approved enclosure.
2. Calculate loads to ensure any channels are not overloaded, then connect loads to the output channels. The maximum loading of this device is as follows:
 - DALI Broadcast mode:** max 80 drivers per channel or 300 total
 - DSI Mode:** max 100 drivers per channel or 375 total
 - 1-10V mode:** 50mA sink or source
 Note that most 1-10V cabling scenarios are polarity-dependent. DALI and DSI cables are not polarity-dependent.
3. Connect a single phase 0.5A feed to the supply terminals. Ensure that the DDBC1200 is earthed.
4. Connect data cables to the device as per the diagrams below.
5. If the auxiliary dry contact input is to be used, connect a dry contact device between the AUX and GND terminals. Keep cable runs between the DDBC1200 and the dry contact under two meters. The function of the auxiliary input is configurable via the EnvisionProject commissioning software.

Note that correct operation of DALI Broadcast mode relies on the drivers being set to their factory defaults.

If problems are encountered, press the DDBC1200 service switch 3 times to reset all connected and energized drivers to their default settings.



Recommended Cable Type

Dynalite DYNET-STP-CABLE or equivalent shielded four twisted-pair.

See datasheet for more information.

Recommended Cable Color Coding

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

Brown/White Pair

Paralleled for GND
 Paralleled for +12VDC
 Blue for DATA+
 White for DATA-
 Spare, use for SHIELD on unshielded cables

Product Specifications

Supply:	100 - 240 VAC 50/60 Hz single phase at 0.5A
Control Outputs:	12 x HF Driver control outputs, each selectable to DALI Broadcast, 1-10V or DSI
Control Capacity:	DALI Broadcast: max 80 drivers/channel, do not exceed 300 drivers total DSI: max 100 drivers per channel, do not exceed 375 drivers total 1-10V: 50mA sink or source
Supply Terminals:	1 x Earth, 1 x Neutral 1 x Phase conductor size 0.2 - 5mm ² (24 - 10 AWG)
Output Terminals:	12 x DALI, 0-10V, DSI driver circuits: DA+, DA- conductor size 0.2 - 5mm ² (24 - 10 AWG)
User Controls:	Manual override switch for each channel, Service switch, Diagnostic LED, programmable AUX input
Serial Port:	1 x RS485 unterminated, consisting of: 2 x RJ12 sockets 1 x 6 way terminal strip for permanent connections (2.5mm ² conductor size)
DyNet DC supply:	12 V @ 200 mA (supply for approx. 9 user interfaces)
Presets:	170
Compliance:	CE, RCM
Operating Conditions:	Temperature: 0 to 40° C ambient Humidity: 0 to 95% non-condensing
Storage & Transport:	Temperature: -25 to 70° C ambient Humidity: 0 to 90% non-condensing
Construction:	Polycarbonate DIN-rail mount
Dimensions:	93 mm x 215 mm x 64 mm (3.6" x 8.5" x 2.5")
Packed Weight:	0.54 kg