PHILIPS

dynalite

# DDRC810-GL

## Switching Controller
## Installation Manual


## features

- **Single Phase Supply** – 100-240V 50/60Hz single phase at 20A
- **8 x Switched Outputs** – Each at 10A (total box load 20A)
- **Relay devices** – Resistive relay contact TV5 rated 16A 250V AC
- **Over Ride Switches** – (MO Version only) Each channel has a status indicator LED and ON / OFF / AUTO switch
- **Powerful Internal PLC -** Custom scripts can be written to provide process control based on conditional logic
- **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.

**Warning** – This is a class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

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

**Special Programming** – Once powered and terminated correctly this device will only operate in basic mode. A new Dynalite panel will turn on all lighting channels from button 1 and turn off from button 4 if network terminations are correct. Only once the full network is test correct can commissioning begin. Advanced functions can be commissioned via Envision software. If commissioning is required, contact your local distributor for details.

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

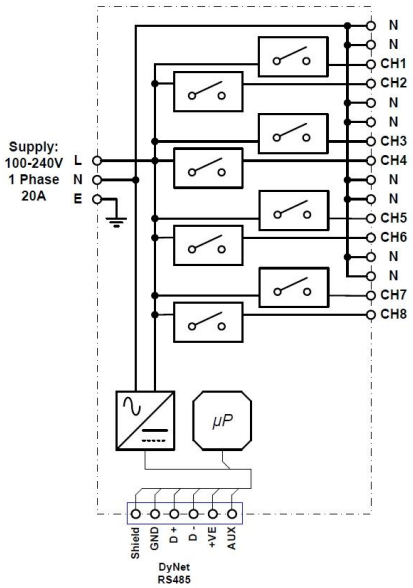
**Power Sources** – This device should only be operated from the type of supply specified on the front cover. This device *must* be earthed.

**Output Circuits** – The load on a circuit should not exceed the specified capacity of 10A. Loads should be calculated to ensure that the overall maximum capacity of 20A is not exceeded. This device should be fed via a 20A HRC fuse or MCB.

**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 are not overloaded, then connect loads to the output channels. The maximum loading of this device is as follows:
   **Maximum Channel Load: 10A**
   **Total Box Load: 20A**
   Ensure that lamp holders are marked with the maximum permissible lamp size that will not overload a channel. This is to protect the end user from inadvertently overloading a channel by replacing lamps with higher wattage types.

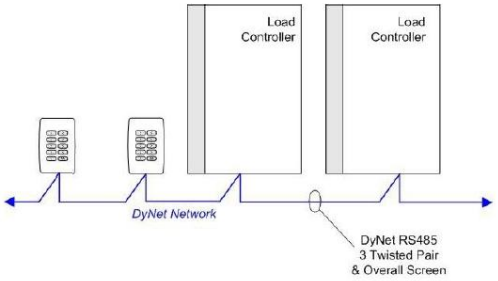
3. Connect a single phase 20A feed to the supply terminals. This device must be fed from a 20A circuit breaker. This device must be earthed.

4. Connect data cables to the device as per diagrams below.

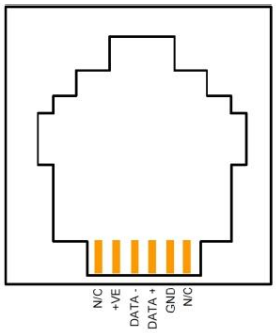
5. If the Auxiliary input is to be used, connect a dry contact device in between the AUX and GND terminals. Keep cable runs between the DDRC810-GL and the dry contacts under two metres. The function of the Auxiliary input will need to be programmed at the time of commissioning.

## Connecting Data Cable

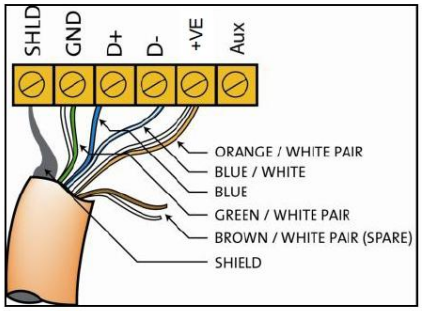
**Connect Data Cable in a 'Daisy Chain'**




**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- |
| **Brown/White Pair** | Spare, use for Shield on unshielded cable |

### Recommended Cable Types

| | | | |
|---|---|---|---|
| Belden: | 9503 | M&M cable: | B9503CS |
| Garland: | MCP3S | Multicables: | AWME120236209220 |
| Hartland: | HCK603 | RS Components: | 368-687 |
| M&M Cable: | B2003CS | Dynalite: | DYNET-STP-CABLE |

# product specifications

| | |
|---|---|
| **Supply:** | 100-240V 50/60Hz single phase at 20A |
| **Load Outputs:** | 8 switched outputs at 10A per channel (total box load 20A) |
| **Switching Device:** | Relay – 250V AC 16A |
| **Overload Protection:** | No integral protection, supply from a 20A MCB |
| **Supply Terminals:** | 1 x Phase, 1 x Neutral 1 x Earth, 1 x 4mm$^2$ cable per terminal |
| **Load Terminals:** | Each Channel has 1 x Phase, 1 x Neutral, 1 x 4mm$^2$ cable per terminal |
| **Control:** | DyNet Network Control<br>AUX input, function of AUX is programmable via internal sequencer |
| **Serial Port:** | 1 x RS485 unterminated, consisting of 1 x RJ12 socket & 1 x 5 way terminal strip for permanent connections |
| **DyNet DC Supply:** | 120mA (capacity for approx 6 Panels) |
| **Presets:** | 170 Internal, selectable presets |
| **Over Ride Switches:** | (MO version only) Status indicator LED and override button for each channel |
| **Programmable Logic:** | 8 Tasks, most UPAN mnemonics supported |
| **Compliance:** | CE, C-Tick |
| **Ambient Temperature:** | 0° - 50°C Ambient temperature 0% to 95% RH non condensing. |
| **Construction:** | Polycarbonate plastic DIN rail mount |
| **Dimensions:** | Height 93mm x Width 211mm x Depth 75mm |
| **Weight:** | 0.82kg |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