

DDR810DT-GL

Dry Contact Switching Controller Installation Manual



features

- **Single Phase Supply** - 1 phase at 100-240V 50/60 0.25A
- **8 x SPDT Dry Contact Outputs** Rated at 10A resistive
- **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
- **Rear lit keypad** – (DDLE802-MO version only) Rear lit keypad provides status indication and local control of all channels. Features illuminated service switch for diagnostics and local override.



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.

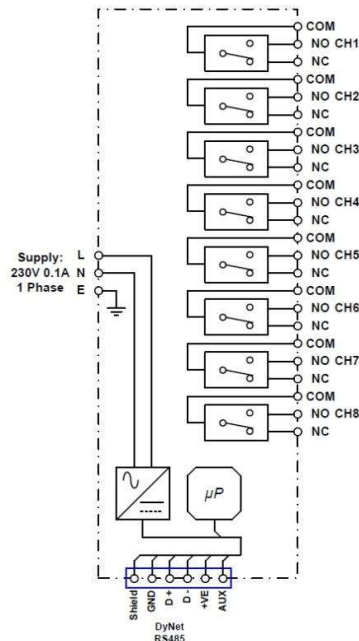
Power Sources – This device should only be operated from the type of supply specified on the front cover. This device *must* be earthed.

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 40A is not exceeded. This device should be fed via a 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

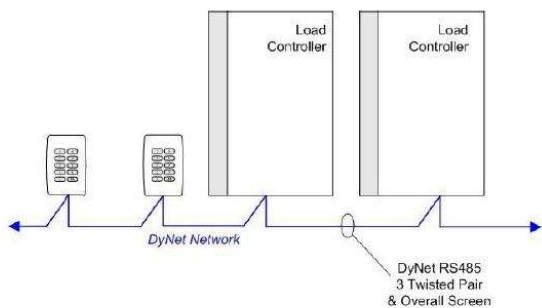


installation steps

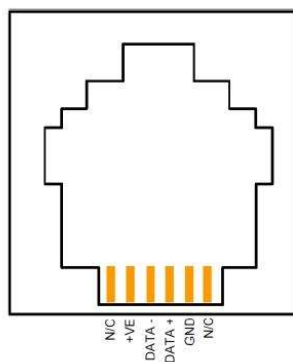
1. Mount the device on a DIN rail inside an approved enclosure.
2. Calculate loads to ensure any channels are not overloaded, then connect loads to the output channels. The maximum loading of this device is as follows:
Maximum Channel Load: 10A 250V AC resistive, 10A 30V DC resistive
Total Box Load: 40A
 - * Functional isolation only exists between switched outputs, do not mix SELV and non-SELV loads on the same DDRC810DT-GL.
 - * Normally Open contact is TV8 rated. Normally Closed contact is TV3 rated. De rate the Normally Closed contacts for reactive loads.
 - * To ensure a true dry contact, Snubbers or spark killers are not internally fitted, de rate the channel for reactive loads.
 - * 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 0.25A feed to the supply terminals. 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 DDRC810DT-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

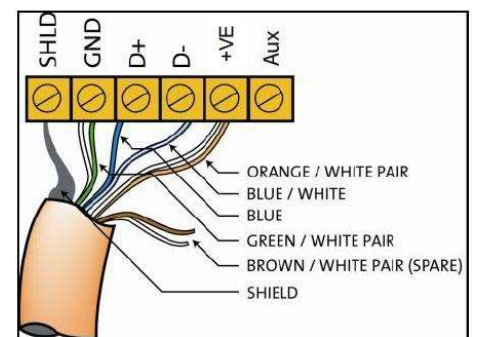
Connect Data Cable in a 'Daisy Chain'



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 specification

Supply:	100-240 50/60Hz single phase at 0.25A
Load Outputs:	8 x SPDT Dry Contact Outputs at 10A per channel
Switching Device:	Relay – 10A 250V AC resistive, 10A 30V DC resistive. NO contact TV8 rated. NC contact TV3 rated
Supply Terminals:	1 x Phase, 1 x Neutral 1 x Earth, up to 1 x 4mm ² cable per terminal
Load Terminals:	Each Channel has 1 x Normally Closed, 1 x Normally Open, 1 x Common, up to 1 x 2.5mm ² cable per terminal
Control:	DyNet Network Control AUX input, function of AUX is programmable via internal sequencer
Serial Port:	1 x RS485 unterminated, consisting of 1 x RJ12 socket & 1 x 6 way terminal block 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 ON / OFF / AUTO switch for each channel
Programmable Logic:	8 Tasks, most UPAN mnemonics supported
Compliance:	CE, C-Tick
Ambient Temperature:	0° to 40°C ambient temperature, 0% to 95% RH non condensing
Construction:	ABS DIN Rail enclosure (12 unit)
Dimensions:	H 93mm x W 211mm x D 75mm
Weight:	0.82 1Kg