

QL-1210

12 CHANNEL DIMMING/SWITCHING MODULE

The QL 1210 is a 12 channel dimming/ switching power pack module designed for large lighting automation requirements. The module is designed for higher dimming loads.

The module is perfectly designed for ease of maintenance. Any two channels set can be removed and replaced from the unit without switching off the power of the whole unit. The replacement can be done in a matter of seconds. The entire configuration for the 12 channels is done and stored in the QL-CPU unit of the module. Hence physical replacement of any channel does not require any reprogramming to restore functionality. The channels can be simply 'hot swapped'.

The module can be configured as a part of a central system or as a standalone system. In a standalone mode, the module operates in the QL NET mode. When used as a part of a central system with QL NE100 controller, the module operates in DMX-512 mode.

Any output of this module can be programmed for "switched mode", "Phase dimming mode" or "1-10V dimming mode" allowing the same channels to be used for either leading edge phase dimming or 1-10V dimming.



This module can be fitted along with protection devices in a cabinet with any other modules. The metal construction has been designed and built for safety, reliability & serviceability.

Each channel has an override switch which overrides the output control via QL NET/DMX-512 commands and transfers the control of output level to the override slider of the channel. Each channel also has a bypass switch which bypasses any dimming and sets the output of that channel to 100%.

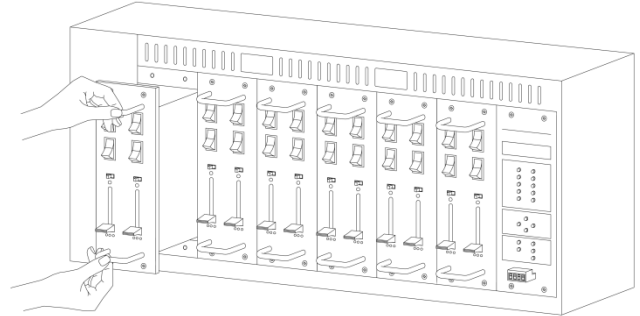
After power loss, on restoration the system will restore each channel to the "last selected state" prior to the power loss.

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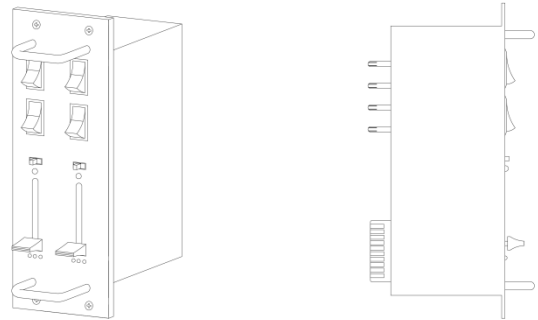
12 CHANNEL DIMMING/SWITCHING MODULE

- Operates in Stand-alone mode and centralized mode with QL NE100
- Accepts standard DMX-512 signal
- Up to 99 zones configurable in QL NET mode
- Up to 8 Programmable partition zones
- Up to 8 programmable scenes in QL NET mode
- Manual override switch and slider per channel
- Manual bypass switch per channel
- Each channel configurable as leading edge phase dimming, 0-10V dimming or switching mode
- Built-in clock and timer
- Module Temperature readable on LCD display
- Auto shutdown on overload

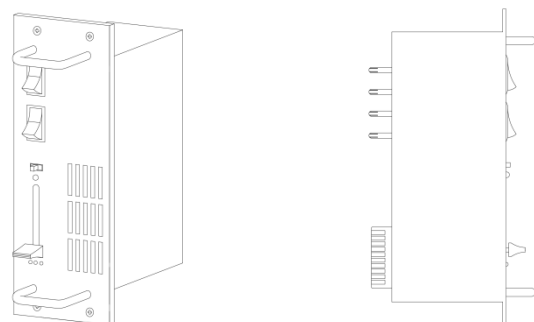
- Hot swappable channels



- Twin channel 10A insert available



- Single channel 20A insert available



Specifications

Power Supply

100-270V AC, 50/60 Hz

Power Requirement

100mA @ 230V AC

QL NET Power Supply Capacity

400mA

Protocol

QL NET, DMX-512

Output Rating

Max per channel : 10A

Connectors

QL NET/DMX-512 : Detachable 4 pin 2mm connector (on QL -CPU), Non-detachable 4 pin 2.5mm connector, 2 nos. 2.54mm 4 pin bar connectors
Power in : Non-detachable 7 pin 5mm connector (3 phases, 3 neutrals and 1 earth)

Power in for QL-CPU : Non-detachable 3 pin 3.5mm connector

Phase/Neutral out : Non-detachable 24 pin dual layered (row of 12) 3.5mm connector (2 per output)

0-10V DC out : Non-detachable 24 pin dual layered (row of 12) 3.5mm connector (2 per output)

Programming Port : 2.54mm 8 pin bar connector

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Configuration Buttons on QL-CPU

1, 2, 3, 4, 5, 6, 7, 8, 9, 0, ▲, ▼, ◀, ▶, DMX, ZONE, VR, FCN and ENTER

Channel Control Switches

Mini rocker switch for channel override (1 per channel)

Mini rocker switch for channel bypass (1 per channel)

SPDT mini slide switch for channel mode selection (1 per channel)

Slider for channel override value set

LED indicators

1 Red LED per channel mimicking the output of that channel, 3 Green LEDs indicating communication signal status and 0-10V signal status

Display

LCD

Dimming Curve

Square Law

Dimmer Efficiency

PF = 0.5 @ 50% load

Environment

Ambient Temperature : 0°C to 40°C
(The module can however be used at higher temperatures if suitable "derated")

Relative Humidity : less than 80%

Safety Regulatory Compliance



Dimensions

487mm(W) x 290mm(H) x 115mm(D)

Weight

12Kg

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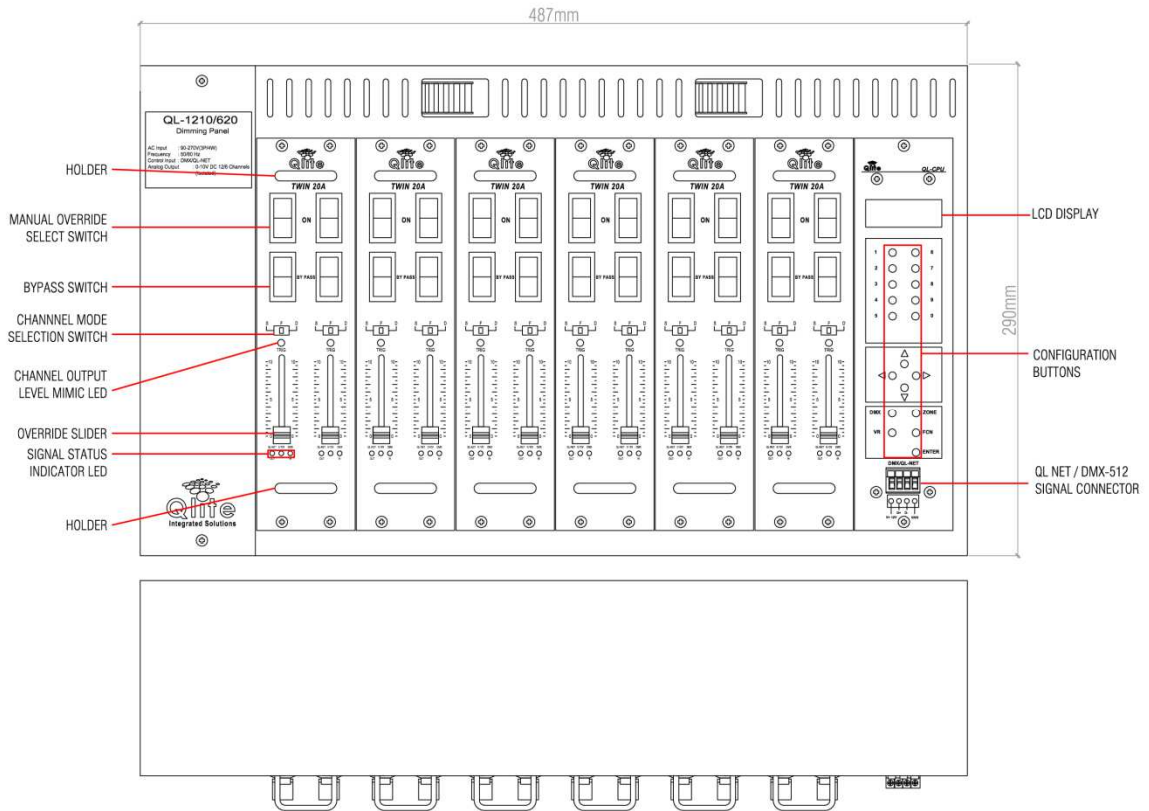


Fig 1. Module Details

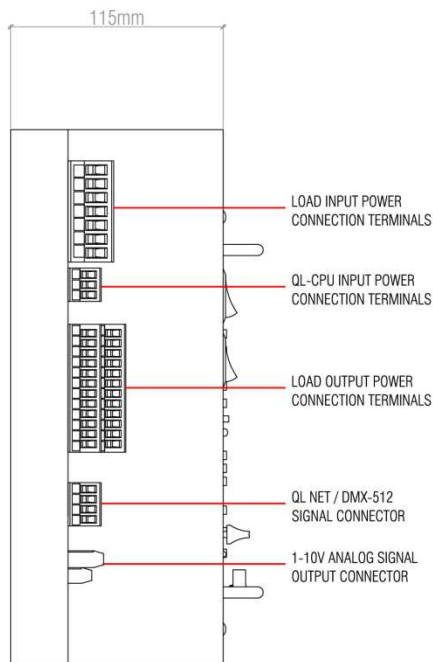


Fig 2. Side View



Fig 3. Panel Mounting of Module

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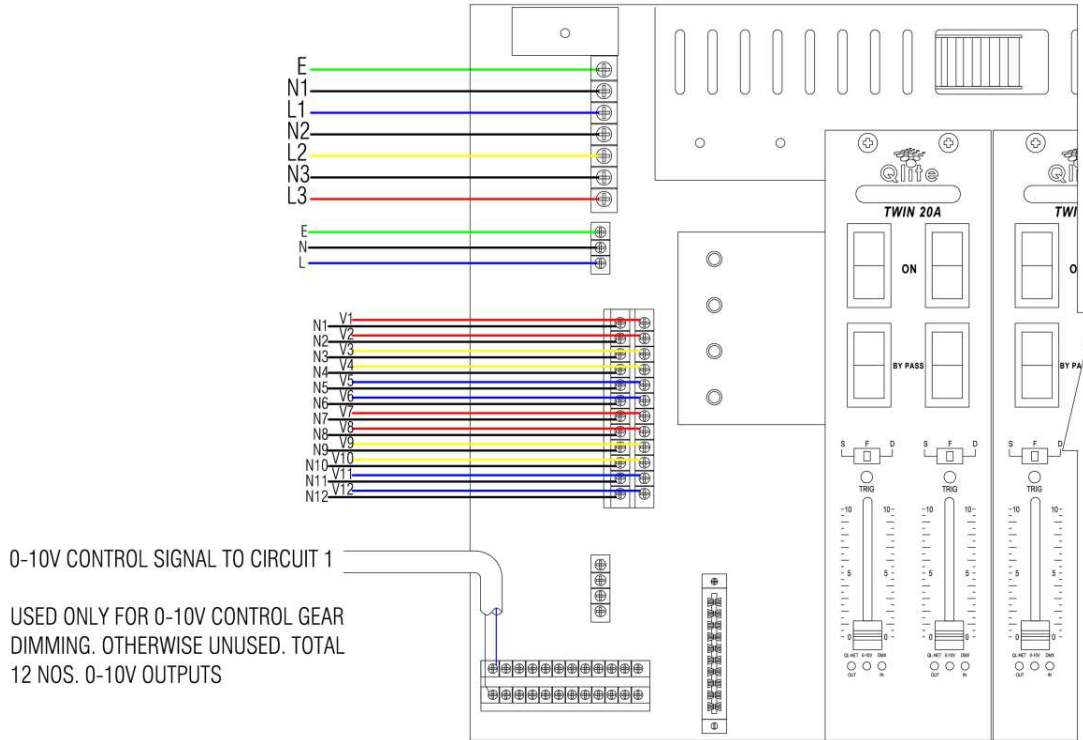


Fig 4. Module Connections

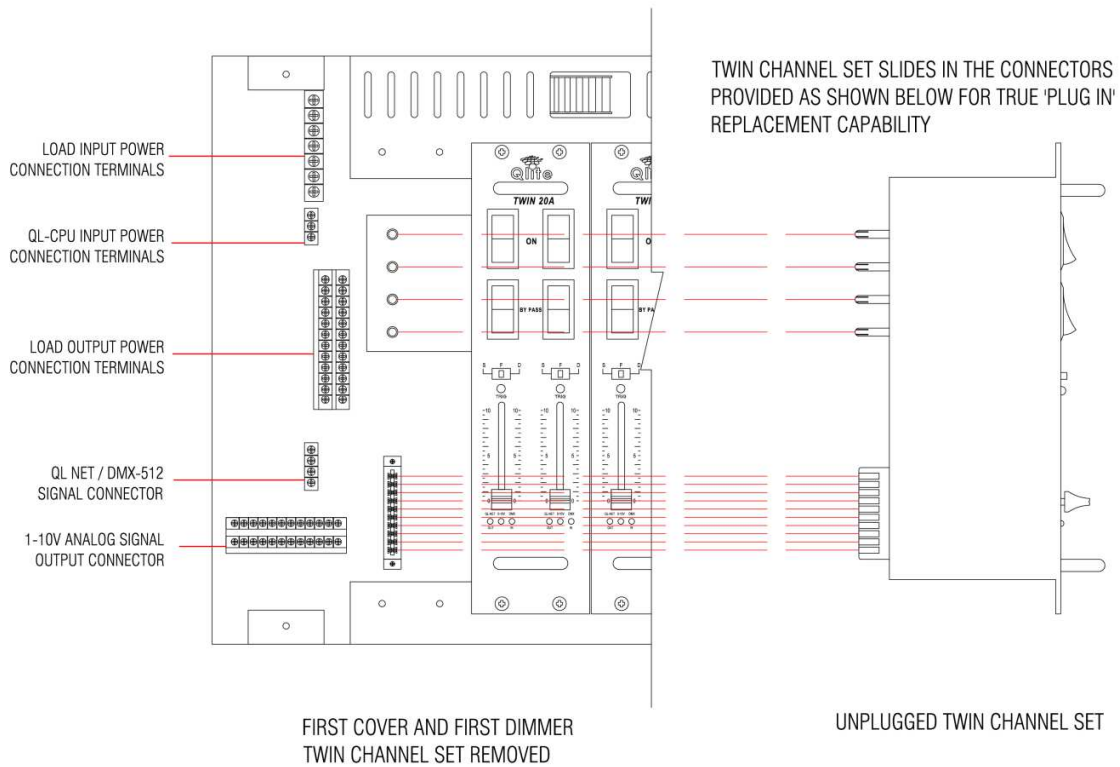


Fig 5. Module Insert Details

Typical Applications

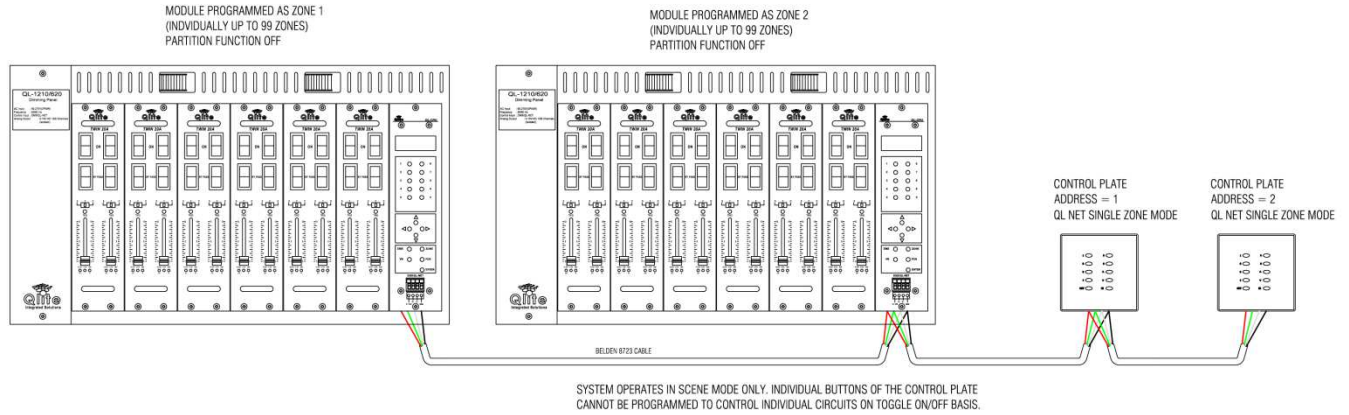


Fig 6. Application Example : QL NET mode

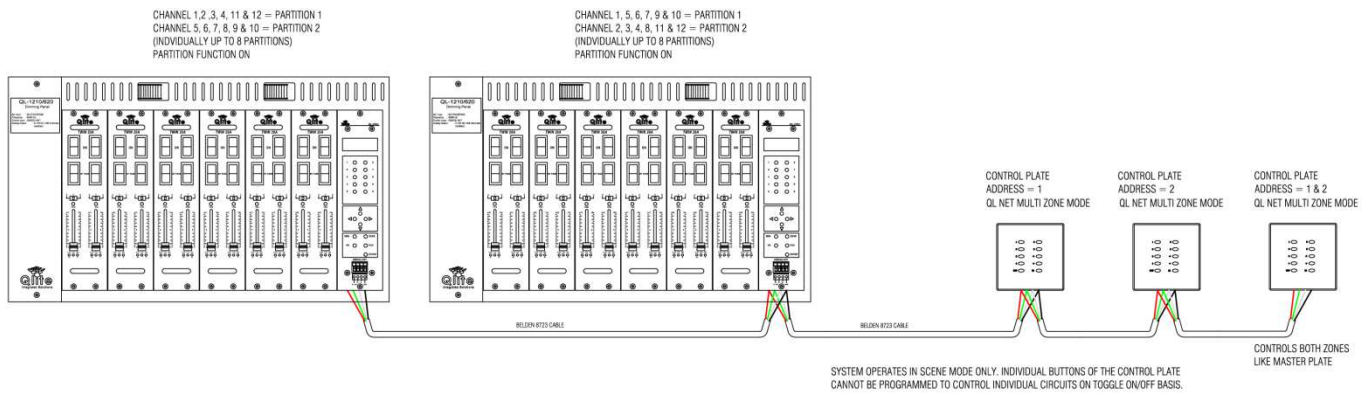


Fig 7. Application Example : QL NET mode

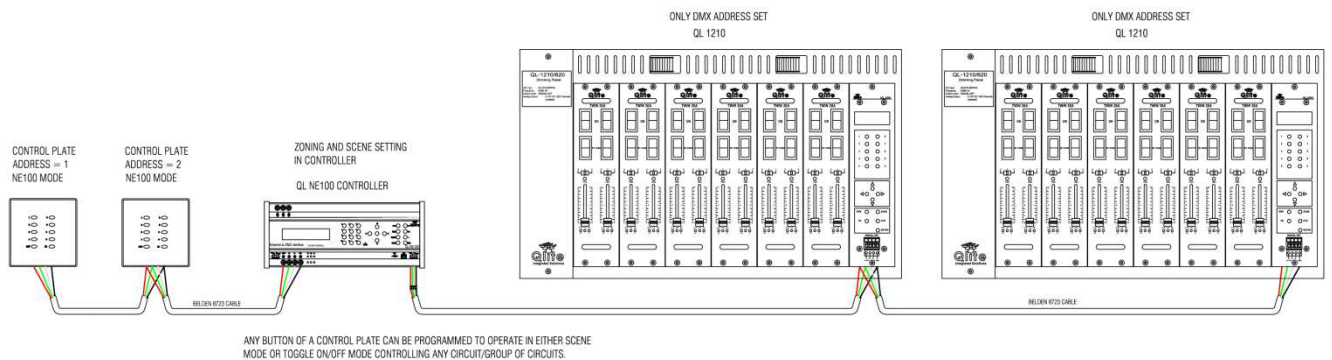


Fig 8. Application Example : NE100 mode