

# QL-PCA1

## SINGLE CHANNEL FAN COIL UNIT CONTROL MODULE

The QL-PCA1 is a single channel fan coil unit control module designed for small to medium sized automation requirements. The DIN rail mountable module is totally self contained with its own integral PSU and 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.

The thermostat unit in the system allows the user to set the desired fan speed and temperature. QL PCA1 output state is controlled based on the user set temperature and the current temperature (measured by built-in temperature sensor in the thermostat).

This module can be fitted along with protection devices in the distribution board or into a cabinet with any other modules. The metal construction has been designed and built for safety, reliability & serviceability with standard DIN rail mountable fixing arrangement. The channel numbers for each output can be configured.

After power loss, on restoration the system will restore the fan coil unit to setting prior to the power loss.



- Operates in Stand-alone mode and centralized mode with QL NE100
- Accepts standard DMX-512 signal
- DIN rail mountable
- Up to 99 zones configurable in QL NET mode
- 3 fan speed control
- Separate heat and cool control
- Manual control buttons for fan speed control and valve / heating element control

### Specifications

#### Power Supply

100-270V AC, 50/60 Hz

#### Power Requirement

25mA @ 230V AC

#### QL NET Power Supply Capacity

400mA

#### Protocol

QL NET, DMX-512

#### Output Rating

Max per relay : 10A

#### Connectors

QL NET/DMX-512 : Non-detachable 4 pin 3.5mm connector, 2 nos. 2.54mm 4 pin bar connectors

Power in : Non-detachable 3 pin 3.5mm connector

Cooling control : Non-detachable 2 pin 3.5mm connector (common and cool)

Heating control : Non-detachable 2 pin 3.5mm connector (common and heat)

Fan control : Non-detachable 4 pin 3.5mm connector (common, low, medium and high)

Programming Port : 2.54mm 8 pin bar connector

Spare Port : 2.54mm 3 pin bar connector (for future use)

#### Configuration Buttons

▲, ▼, ◀, ▶, FCN and DMX

#### Manual Control Buttons

Cool, Heat, Off, H, M and L

#### LED indicators

6 Green LEDs mimicking the output of the 6 relays, 1 Red LED indicating power and 2 Green LEDs indicating communication signal status

#### Display

LCD

#### Environment

Ambient Temperature : 0°C to 50°C

Relative Humidity : less than 80%

#### Safety Regulatory Compliance

CE

#### Dimensions

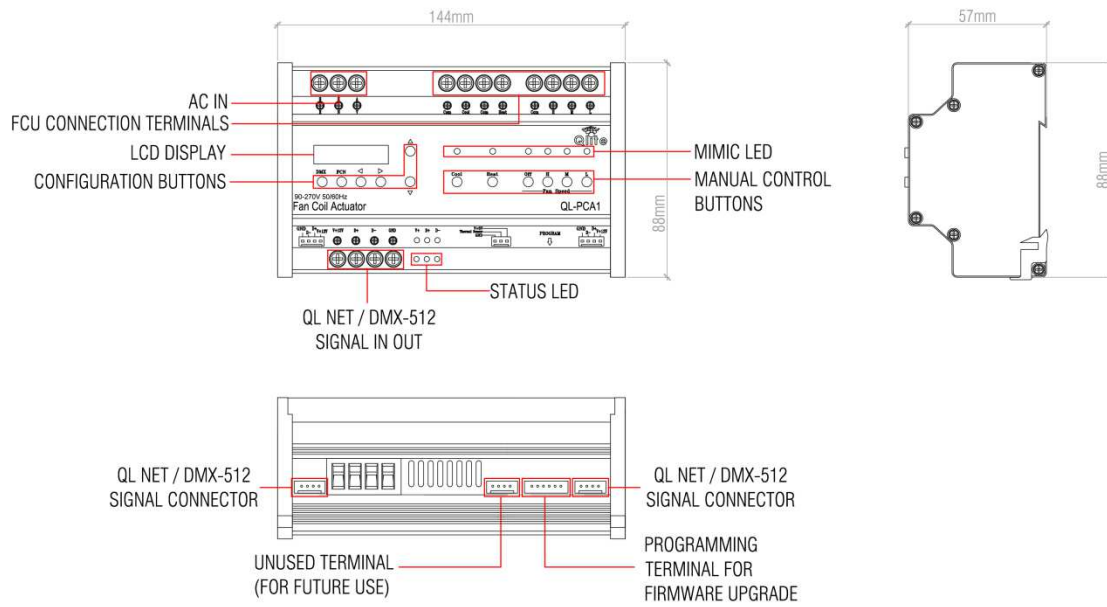
144mm (W) x 88mm (H) x 57mm (D)

#### Weight

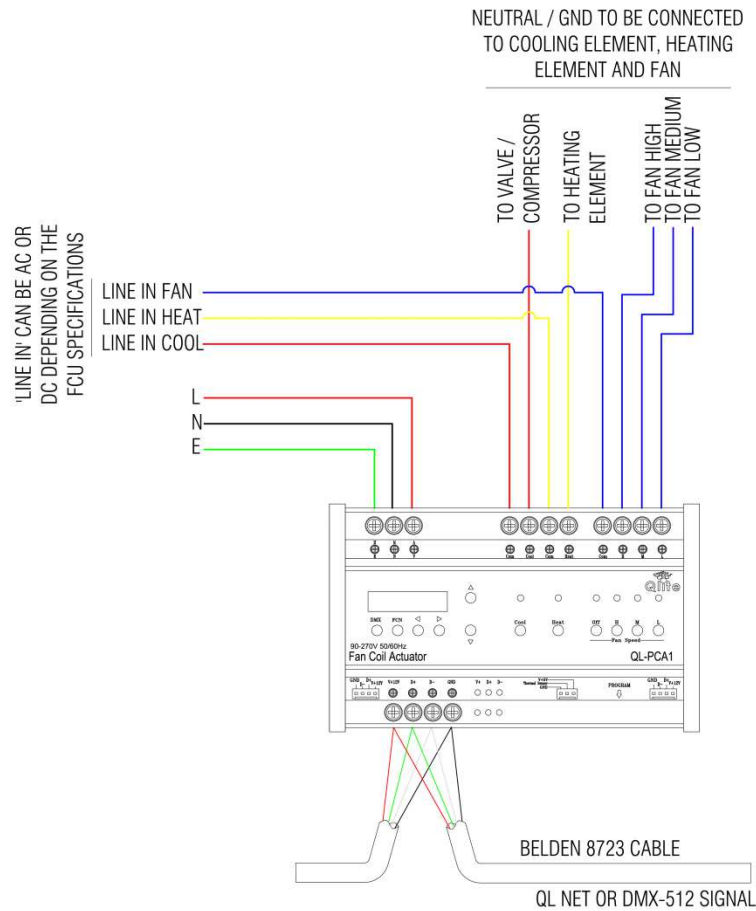
400g

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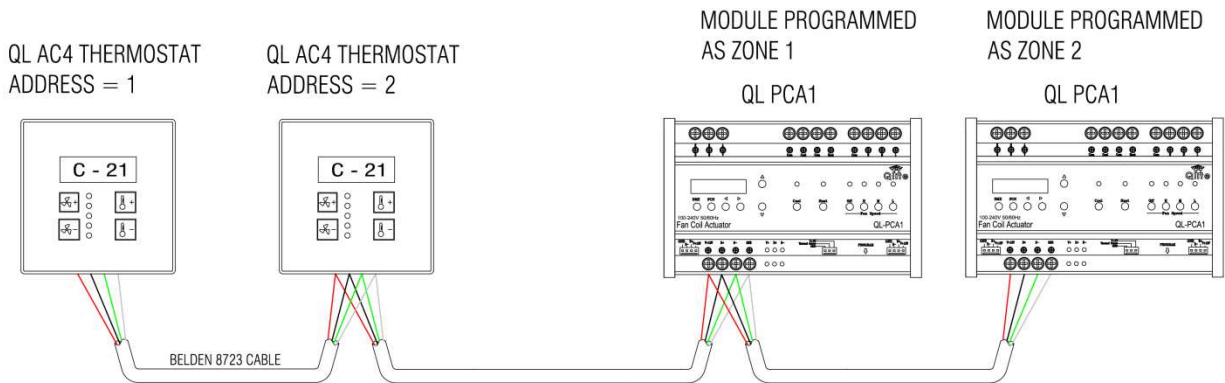
**Fig 1. Module Details**



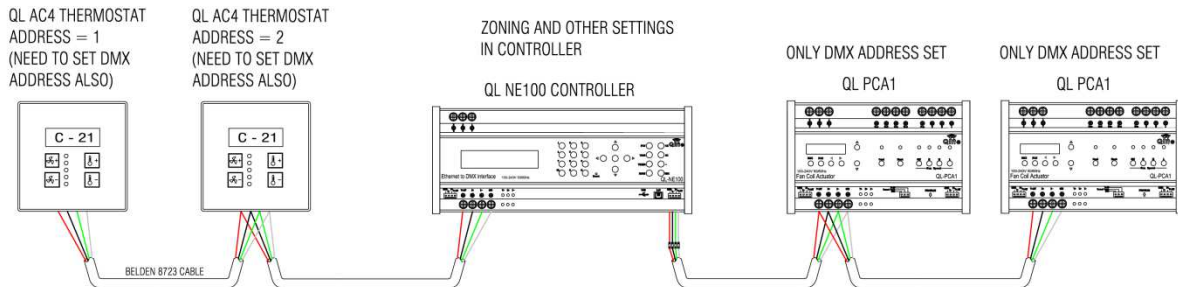
**Fig 2. Module Connections**

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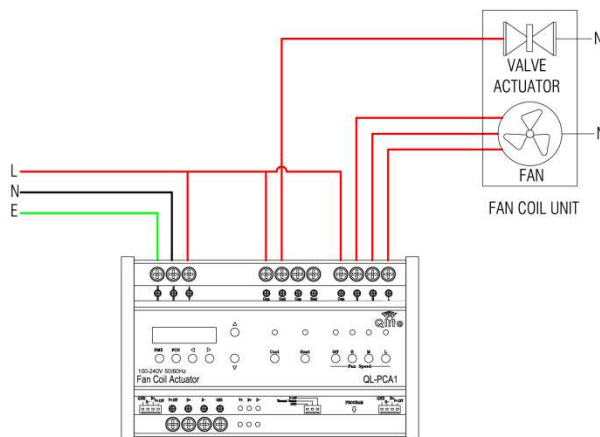
### Typical Applications



**Fig 3. Application Example : QL NET mode**



**Fig 4. Application Example : NE100 mode**



TYPICAL CONNECTION FOR FCU WITH 3 SPEED FAN AND OPEN / CLOSE 230V ACTUATED VALVE

**Fig 5. Application Example**