

QEL Q-Controller

The new Q-Controller includes features that are unique to the gas detection industry. The system uses an RS 485 communication protocol that accommodates 128 channels through four digital ports. In addition there are 128 analog inputs from any 4-20mA device and equally 128 4-20mA outputs. There are also up to 128 binary inputs and 128 binary outputs. Standard is a Modbus output from the controller as well as an available BacNet IP output(spring 2016).

The system communicates wirelessly for programming and downloading of data through your smartphone or tablet device. Input/output boxes can be installed anywhere in the RS 485 network for ease of installation of additional sensors. A touch screen graphic display is used for programming. All relevant gas detection data, such as relay status, historical data, location and addresses of sensors are displayed by scrolling through multiple screens.

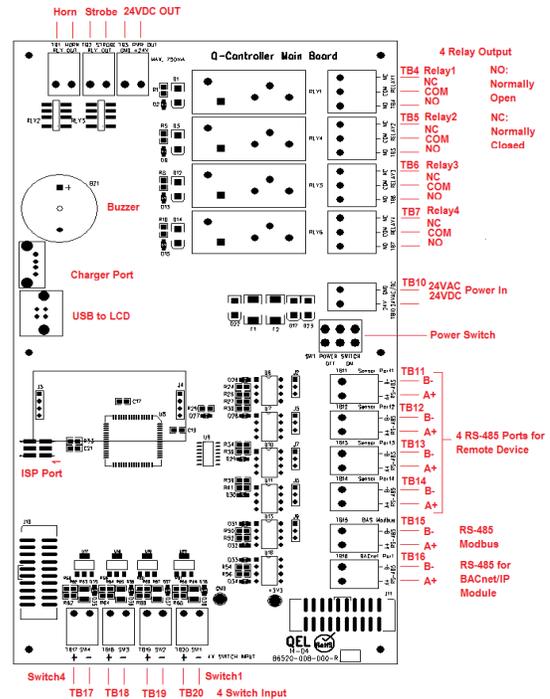
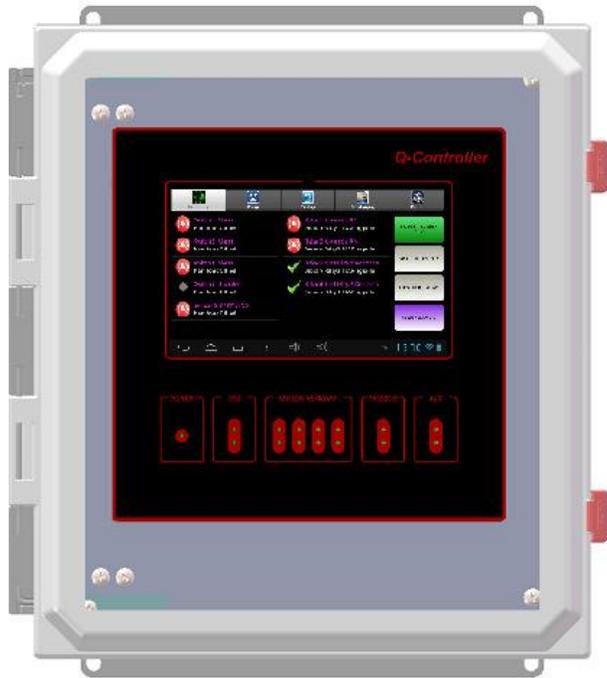
The controller has a scheduler that can be programmed to activate relays and deactivate relays several times a day based on a frequency of day, weekday or weekend only. It also has an auto configure program that searches for connected devices. As the unit can accept any 4-20mA signal it is ideal for additional monitoring such as temperature humidity and other parameters that may be of interest.

Several Q-Controllers can be connected together to a centralized system that will display gas detection concentrations of an entire facility. Remote monitors are an optional item that can be used to observe the concentration of gases prior to entering the space.



Key Features

- 128 RS485 channels
- 128mA inputs and outputs
- 128 relay inputs and outputs
- Modbus and BacNet outputs
- Wireless Communication with smart devices
- Seven inch touchscreen display
- Data logging
- Eight event scheduler for daily, weekday or weekend events
- Auto configure feature
- 24VAC/VDC operation
- 4 x10Amp DPDT relays on main board up to 124 remote
- On board and remote annunciation
- Nema 4X enclosure with clear window
- Email alarms, configuration and datalogging files



Specifications

- Voltage:** 24VDC nominal, range 18 to 30VDC
24VAC nominal, range 15 to 24VAC 50/60HZ
- Current:** Q-Controller: max. 0.75 A (fuse protected)
Strobe & Horn: max. 0.75 A (fuse protected)
- Fuse:** F1, F2 on Main Board: Polyswitch 750mA
Polyswitch device resets after the fault is cleared and power to the circuit is removed
- Display:** 7 inch LCD touchscreen display 800 x 480 resolution and capacitive multi-touch TN panel for easily navigate screen
- Panel Indicators:** 15 Status LEDs
Power Status
USB TX/RX status
4 RS-485 port TX/RX Status for Sensor Network
1 RS-485 port TX/RX Status for Modbus
1 RS-485 port TX/RX Status for BACnet Module or AUX
- Relays:** Onboard 4 pluggable Relays SPDT, Dry contacts
Resistive load: 10A at 250VAC
10A at 30VDC
Inductive load: 7.5A at 250VAC
5A at 30VDC
- Switch Inputs:** 4 channel switch inputs
The switch can be Q-Switch or any ON-OFF switch
- Buzzer:** 100 dBA at 10 cm, 3700 Hz Continuous

- Horn and Strobe:** Two relay contacts are dedicated max 750mA on 24VDC supply
- Remote Devices:** 4 X RS485 ports with QEL Protocol: M5, Q5, Q8, QIRF QTS-8000
AI, AO, BI, BO(relays) boxes
- Modbus Slave Port:** RS485
Responds as Modbus Slave
RTU Protocol Q-Controller supplies read status only
- BACnet Port:** RS485 Port
Connects to QEL/BACnet IP Module

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