QCC Quad Channel Controller

Critical Environment Technologies™

FIXED SYSTEMS

The QCC Quad Channel Controller offers four channel configurations for monitoring toxic, combustible and/or refrigerant gases with versatile control functionality for non-hazardous, non-explosion rated, commercial and light industrial applications. It is designed to accept inputs from up to four remote digital and/or analog transmitters using digital or 4-20 mA analog input. The QCC is available in two models, the QCC-M with Modbus® RS-485 output or the QCC-B with BACnet® MS/TP output for communicating with a Building Automation System (BAS).

Standard features include, three configurable SPDT dry contact relays with field configurable time delays and trigger levels, an LCD display with LED indicators for channel alarm status, relay status and fault conditions, an extensive menu system with password protection, logic control, a USB port for firmware upgrades and a door mounted, loud audible alarm that is ideal for noisy environments. Optional value added features include: an analog output module with data logging, a manual shutoff switch (meets B52 code requirements), a top mounted strobe and a water tight, door mounted audible alarm. The QCC can be connected to several remote devices such as a Remote Strobe/Horn Combo, a Remote Display Module and the LNK-AO Analog Output Peripheral Device.

KEY FEATURES

» Up to 4 channels of gas readings in any combination of analog and/or digital transmitters
» Configured with either a Modbus® RS-485 output signal for LAN and WAN communications or a BACnet® MS/TP output signal for WAN communications only (for communicating with a BAS)
» Optional two 4-20 mA outputs with data logging
» Three 5-amp SPDT dry contact relays
» 4 line, 20 character LCD display with LED indicators
» Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rating with door mounted, water tight buzzer installed.
» USB port for firmware upgrades and data logging
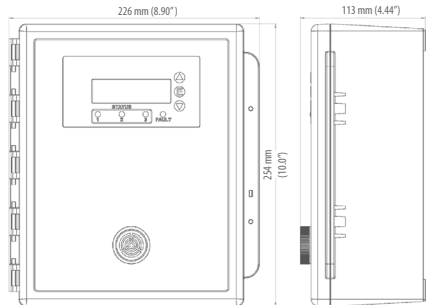» RoHS compliant circuit boards
» Thermal resetting fuses

APPLICATIONS

» Wastewater Treatment Plants
» Ice Arenas
» Commercial Indoor Swimming Pools
» Chiller Rooms
» Parking Garages
» ... and many more

TECHNICAL DRAWING

226 mm (8.90")   113 mm (4.44")

254 mm (10.0")

TECHNICAL SPECIFICATIONS

MECHANICAL

Enclosure	ABS / Polycarbonate, rated UL94-5VA; Pending IP54 rating with door mounted, water tight buzzer installed. Copper coated interior to reduce RF interference.
Weight	1.7 kg (3.78 lb)
Size	254 x 226 x 113 mm (10.0 x 8.9 x 4.44 inches)

USER INTERFACE

Display	4x20 character LCD digital display plus LED panel indicating "STATUS 1, 2 and 3" and "FAULT"

INPUT / OUTPUT

Inputs	- Modbus® RS-485 RTU - 4-20 mA analog
Outputs	- Modbus® RS-485 (model: QCC-M) - BACnet® MS/TP to BAS (model: QCC-B) - Two 4-20 mA analog outputs with data logging (optional) - Remote and Peripheral devices on a Modbus® RS-485 RTU network - One 24 VDC drive output for strobe/horn e.g. RSH-24VDC (0.5 amp @ 24 V max)
Relay	Three SPDT dry contact relays, rated 5A @ 240 VAC
Audible Alarm	- Standard loud, door mounted buzzer, rated 90 dB @ 30 cm (0.98 ft) - Optional water tight, door mounted buzzer, rated 85 dB @ 60.96 cm (2 ft)

QCC Quad Channel Controller

FIXED SYSTEMS

TECHNICAL SPECIFICATIONS CON'T

ELECTRICAL

Power Requirement
Line Voltage   90 - 240 VAC, 50 - 60 Hz, 75 W

Wiring	- VAC (line voltage) 3-conductor shielded
	- LAN Modbus® RS-485 4-conductor
	  shielded
	- WAN (output to BAS only) RS-485
	  4-conductor shielded

Fuse	Automatic resetting thermal

ENVIRONMENTAL *(sensor dependant)*

Operating Temperature	Standard -20°C to 40°C (-4°F to 104°F) -40°C to 50°C (-40°F to 122°F) with optional internal heater
Humidity	15 - 90% RH non-condensing

CERTIFICATION

Conforms to: CSA-C22.2 No. 205-M1983 (R2009)
            UL508 (Edition 17):2007

Conforms to: EMC Directive 2004/108/EC
            EN 50270:2006, Type 1, EN61010

Conforms to: FCC. This device complies with Part 15 of the FCC Rules.

QCC-B, QCC-B-X models are Listed by BTL

(where X represents one or more factory installed Options)

PRODUCT CODES

QCC-M	Modbus® Output Quad Channel Controller
QCC-B	BACnet® Output Quad Channel Controller

OPTIONS *(Factory installed)* Add at the end of the "Part Number" above.

AO	Two 4-20 mA analog outputs with datalogging
IH	Internal heater for cold environment applications
L	Top mounted strobe 24 V, size: 7 cm dia x 12.7 cm H (2.75 in x 5 in)
SW	Manual shutoff switch *(meets B52 Code for refrigeration applications)*
WA	Door mounted, water tight audible alarm, rated 85 dB @ 60.96 cm (2 ft)

REMOTE & PERIPHERAL DEVICES

QCC-RDM	Remote Display Module for QCC
LNK-AO	Analog Output Peripheral Device, Modbus® RS-485 with four 4-20 mA outputs
RRM-4	Relay Output Module, Modbus® RS-485 with four relays, rated 5A @ 240 volts each
RPS-24VDC	Remote Power Supply, 24 VDC, 2 Amp
RAA-90	Remote Audible Alarm rated 90 dB @ 30 cm (0.98 ft)
RAA-90-W	Remote Audible Alarm, water tight rated 85 dB @ 60.96 cm (2 ft)
RSH-24VDC	Remote Strobe and Horn combo rated 100 dB @ 3 m (10 ft)

ACCESSORIES

SCS-8000-SPG	Metal protective guard, large, 16 gauge, galvanized metal guards for controllers (not compatible if option -SW is installed)

QCC shown with Options -L and -SW.