

# GAS DETECTION CONTROLLERS DATASHEET

## QCC Quad Channel Controller



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.

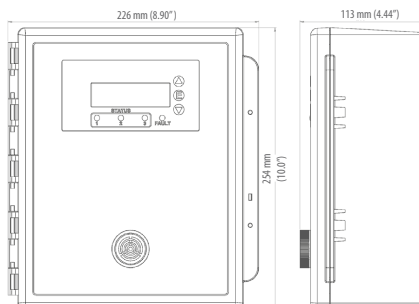
### KEY FEATURES

- » Up to 4 channels of gas readings in any combination of analog and/or digital transmitters
- » Modbus® RS-485 LAN communications for controlling Peripherals
- » Modbus® RS-485 (QCC-M) or BACnet® MS/TP (QCC-B) WAN output for communicating with a BAS
- » Optional two 4-20 mA outputs with data logging
- » Three 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



### TECHNICAL SPECIFICATIONS

#### MECHANICAL

Enclosure	ABS / Polycarbonate, 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"
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#### INPUT / OUTPUT

Inputs	- Modbus® RS-485 RTU - 4-20 mA analog
Outputs	- Modbus® RS-485 WAN (model: QCC-M) - BACnet® MS/TP WAN (model: QCC-B) - Two 4-20 mA analog outputs with data logging (optional) - Modbus® RS-485 RTU LAN - One 24VDC drive output for strobe/horn e.g. RSH-24VDC (0.5 amp @ 24 V max)
Relays	Three internal SPDT dry contact relays, rated 5A @ 240 VAC
Audible Alarm	- Standard loud, door mounted buzzer, rated 90 dB @ 30 cm (1 ft) - Optional water tight, door mounted buzzer, rated 85 dB @ 60.96 cm (2 ft)

### TECHNICAL SPECIFICATIONS CON'T

#### ELECTRICAL

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

Power Distribution Total power available to Remote & Peripheral Devices and Options 65 W @ 24 VDC

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

Fuses Thermal, resetting

#### ENVIRONMENTAL (sensor dependant)

Operating Temperature -20°C to 40°C (-4°F to 104°F), lower temperature option available

Humidity 15 - 90% RH non-condensing

#### CERTIFICATION

Conforms to: CSA-C22.2 No. 205-12, 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 internal 4-20 mA Analog Outputs with data logging

**IH** Internal heater for cold environment applications down to -40°C / 40°F

**L** Top mounted strobe 24V, 7 cm dia x 12.7 cm H (2.75 in dia x 5 in H)

**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, Modbus® RS-485 (max 4)

**LNK-AO** Analog Output Peripheral Device, Modbus® RS-485 with four 4-20 mA outputs (max 1)

**RLY-4** Relay Output Module, Modbus® RS-485 with four relays, rated 5A @ 240 volts each (max 1)

**RPS-24VDC** Remote Power Supply, 24 VDC, 2 Amp

**RAA-90** Remote Audible Alarm rated 90 dB @ 30 cm (1 ft)

**RAA-90-W** Remote Audible Alarm, water tight rated 85 dB @ 60.96 cm (2 ft)

**RSH-24VDC** Remote Strobe and Horn combo, red lense, mounted on enclosure, 24 VAC/VDC, rated 99 dB @ 3 m (10 ft) (VAC), 97 dB @ 3 m (10 ft) (VDC)

**RSH-24V-A** Remote Horn/Strobe Combo, unmounted, 24 VAC/VDC, rated 99 dB @ 3 m (10 ft) (VAC), 97 dB @ 3 m (10 ft) (VDC), choice of Amber, Blue or Red lense

**RSH-24V-R** Remote Horn/Strobe Combo, red lense, mounted on enclosure, with built in timer and shut off switch, 24 VAC/VDC, rated 99 dB @ 3 m (10 ft) (VAC), 97 dB @ 3 m (10 ft) (VDC)

#### 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.



#### Distributed by:

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