

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.

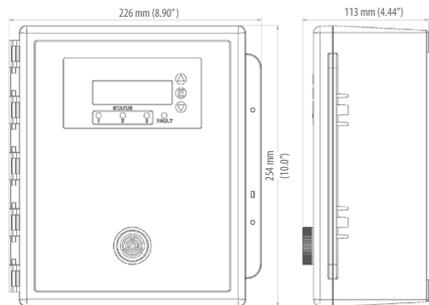
KEY FEATURES

- » 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 5A 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"

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 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)

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TECHNICAL SPECIFICATIONS CONT'

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 (-20°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 4-20 mA analog outputs with datalogging

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

L Top mounted strobe 24 V, 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 for QCC

LNK-AO Analog Output Peripheral Device, Modbus® RS-485
with four 4-20 mA outputs

RLY-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 (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, mounted, 24 VAC/
VDC, rated 100 dB @ 3 m (10 ft)

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

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.



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