



QAS - 10000

QAS-10000 PLUG-IN CONTROLLERS WITH SOLID STATE SENSOR

These modular control systems designed for HVAC applications consist of a QCP-50000 Series Control Panel with one or more QAS-10000 series controller cards. With an independent power converter on each controller card, these systems feature point-to-point integrity. The QCP-50000 series control panel is powered by 115 VAC and provides multiple card slots, each of which will accept any of the controllers. They are available in either 2, 4, or 8 point configuration in a wall mount, and 4 or 8 in a rack mount. The QAS-10000 series controller cards include a broad spectrum solid state sensor for remote mounting, to individually measure hazardous gases listed in the selection table. LED status indicator lights at the front provide alarm and fail information. Two DPDT relays are provided for alarm and control, and a third auxiliary relay can be configured for a fail closure, or other functions. An integral audio indicator is also included. Setpoint calibration, power on, audible disable, and test functions are all accessible from the front panel. Integral DIP switches configure relay time delays, latching relay options and auxiliary relay output function.



QAS-10000 ORDERING CODE

Q A S - 1 0 0 0 X - 0 0 0 0

- Gas Type**
(See Gas Selection Table for #)
- Revision** (Factory Provided)
- Options (Enter 0 for No Selection)**
 - Sensor Guard _____ G
 - Remote Sensor Junction Box _____ J
 - Non-Standard Calibration _____ X
 - Special (consult Factory) _____ S

GAS SELECTION TABLE

GAS TYPE	#	STANDARD CALIBRATION	
		LOW ALARM	HI ALARM
Carbon Monoxide	16	50 ppm in VE*	100 ppm in VE*
Combustibles	17	10% LEL**	20% LEL**
Ammonia	22	35 ppm	300 ppm
Freon R11	26	500 ppm	1000 ppm
Freon R12	27	500 ppm	1000 ppm
Freon R22	28	500 ppm	1000 ppm
Freon R134a	30	500 ppm	1000 ppm

VE* = vehicle exhaust

** = standard calibration for Propane

QCP-50000 ORDERING CODE

Q C P - 5 0 0 X - 0 0 0 0

- Number of Channels**
 - Two (Wall Mount Only) _____ 2
 - Four _____ 4
 - Eight _____ 8
- Mounting Type**
 - Wall Mount _____ 0
 - Rack Mount (4 & 8 Channel) _____ 1
- Revision** (Factory Provided) _____ X
- Options (Enter 0 for No Selection)**
 - Tamper Proof Cover _____ T
 - Nema 4x, w/windowed door _____ N
 - Special (Consult Factory) _____ S

PRINCIPLE OF OPERATION

The solid state sensor utilizes a sintered tin dioxide element. In clean air, oxygen absorbed on the element surface restricts electron flow, increasing the electrical resistance of the element. Adsorption of target gas causes oxidation on the sensor surface and reduces the element resistance in a known manner. The controller measures this change in resistance and compares it to independent setpoints. When either of these two setpoints is exceeded by the measurement signal, the electronics actuates the associated internal DPDT relay. The contacts of this relay may be used to control ventilation fans, audible devices, visual alarms, or other on-off type equipment.

SPECIFICATIONS

Input Power: 104 to 132 VAC, 47 to 63 Hz,
5 VA per card

Fuse: 1 Amp, MDL

Enclosure Rating: Nema 1 General Purpose
Nema 4x Housing Optional

Enclosure Material: No. 16 AWG Steel, Grey
Enamel Finish

Temperature: -20 to 40°C

Humidity: 0-99% RH, non-condensing

Pressure: Atmospheric

Inputs Types: Solid State for:
Carbon Monoxide, Combustible,
Ammonia, Freons R11, R12,
R22 and R134a

Response Time: Less than 30 seconds for a 85%
Step change

Accuracy: +/- 10% of range

Repeatability: +/- 2.5% of range

LED Status Lights: Green - Power On
Red - High Alarm
Yellow - Low Alarm
Red - Sensor Fail

Sensor Remote Mounting: 4,000 ft with 16 AWG
800 ft with 22 AWG

Audio Indicator: 85 dB at 1 foot

Alarm Set points: High, Low, Auxiliary (Fail)

Set point Adjustments: Front access trim pot

Relay Outputs: DPDT @ 5 AMP

Time Delays: 30 seconds to 72 minutes,
Field selectable steps

Field Configuration: (By DIP switches)

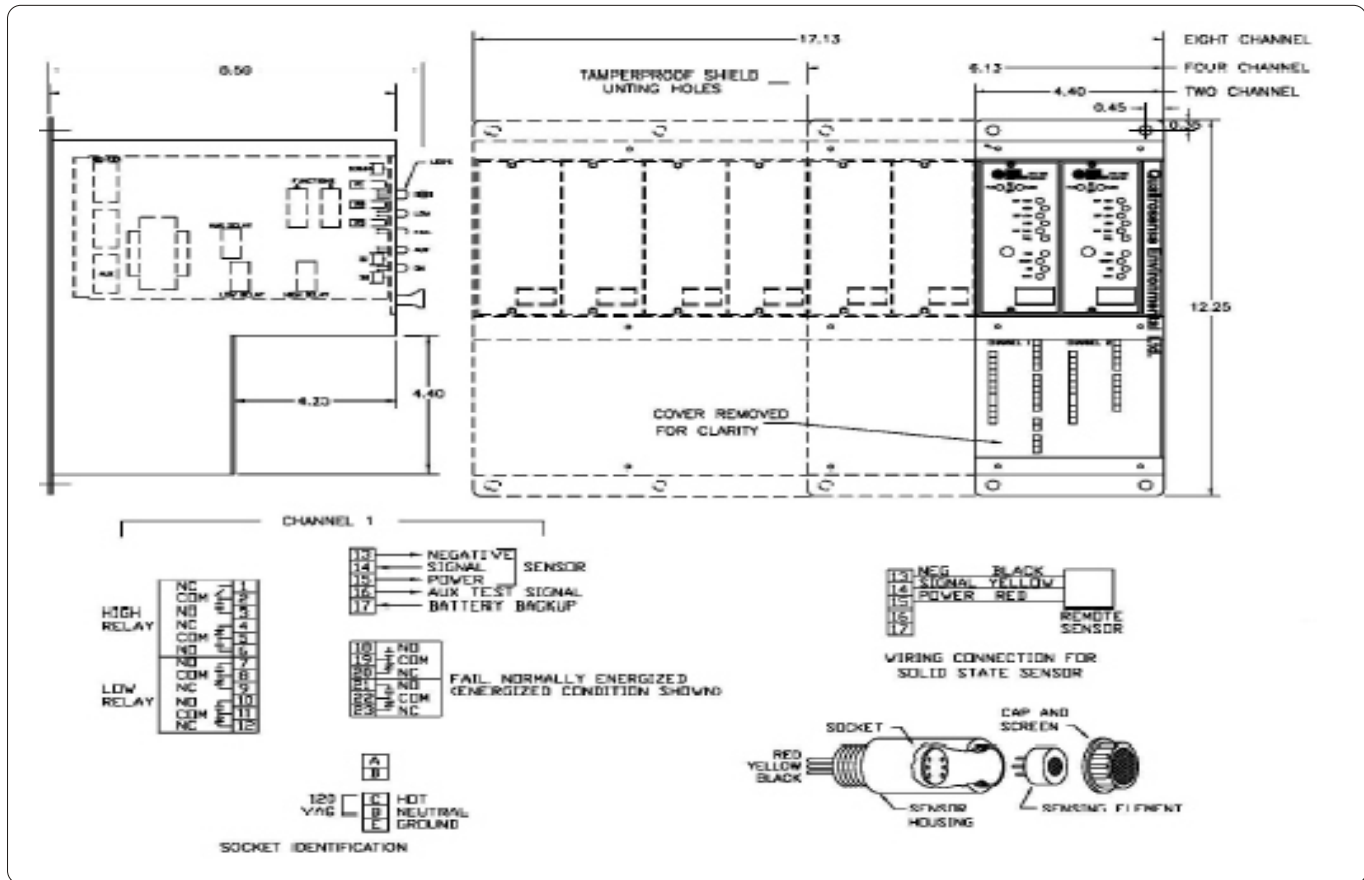
- Relay fail-safe
- Latching relays
- Time delays
- Auxiliary output
- Audible disable

Latching Reset: Front push button

Calibration: Recommended annually
Or as necessary; using
Appropriate calibration gas

System Test: Front push button

Approvals: CSA C22.2-205



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Read and understand fully all instructions before using these products

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