



32 CHANNEL WALL MOUNT CONTROLLER

Gas Detection For Life

Beacon 3200 Model

Channel	Gas	Reading	Status	Location
1A	Carbon Monoxide	31 ppm	Alarm 1	Pump Room #1
1B			Not Used	
1C	Sulfur Dioxide	2.18 ppm	Alarm 1	Pump Room #1
1D	Hydrogen		Offline	Pump Room #1
2A	Nitric Oxide		Offline	Pump Room #1
2B	Oxygen	8.1 % VOL	Alarm 1/Alarm 2	Boiler Room #1
2C	Chlorine	0.0 ppm	OK	Boiler Room #1
2D	Oxygen	18.0 % VOL	Alarm 1	Boiler Room #1
3A	Isobutane	0 % LEL	OK	Boiler Room #1
3B			Not Used	
3C	Propane	0 % LEL	OK	Boiler Room #2
3D	Phosphine	0.21 ppm	Alarm 1	Boiler Room #2
4A	Carbon Dioxide		Offline	Boiler Room #2
4B	Oxygen		Offline	Boiler Room #2
4C			Not Used	
4D	Hydrogen Sulfide	0 ppm	OK	Pump Room #2



Features

- Simultaneously control up to 32 gas monitoring channels
- 8 sensor re relay module slots for flexible configurations:
 - 4 Sensors per module card
 - 8 Relays per module card
 - Up to 3 programmable alarm levels per channel
- 3 common alarm relays and 1 fail relay as standard
- 7" Color LCD Touchscreen display of all 32 channels
- Accepts LEL / O2 / CO2 / toxic direct connect sensors
- Accepts any 4-20 mA transmitter, 2 or 3 wire
- 4-20 mA, RS-485, and Modbus TCP/IP outputs standard
- 115 / 220 VAC or 24 VDC operation
- Audible alarm with silence feature
- RFI / EMI resistant
- Alarm reset switch
- Weather and corrosion resistant NEMA 4X enclosure

Applications

- Petrochemical plants
- Water & wastewater treatment plants
- Gas, telephone, & electric utilities
- Any industrial plant
- Refineries
- Pulp & paper mills
- Parking garages
- Steel

The all new Beacon 3200 is a versatile, advanced fixed system controller for up to 32 points of gas detection. It is capable of controlling up to 32 separate gas detection sensors. Sensor types can be direct connect, 4-20 mA (2 or 3 wire) or Modbus transmitters. The Beacon 3200 can be powered by either 115 VAC, 220 VAC, or 24 VDC. A battery backup option is available and receives its trickle charge from the Beacon 3200. It is simple to operate and comes complete with a wall mount installation kit.

The large 7" color LCD touchscreen can access control and maintenance functions as well as display all 32 channels. The Beacon 3200 is housed in a NEMA 4X rated case for a weather tight seal. This case design complies with lockout / tag out standards and can be fully secured. An external reset switch allows alarms to be silenced from outside the controller housing. Nine bottom wiring hubs allow for easy wiring.

With an Ethernet port, the Beacon 3200 can output all channel data including gas readings and alarm stats via Modbus TCP/IP. This allows users to monitor the readings from a distance. RKI offers the industry's widest selection of standard and toxic gas detection sensors, which can be utilized with the Beacon 3200, providing gas monitoring protection for almost any application.



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Physical

Dimensions	Height: 16" (40.64 cm) x Width: 13.75" (34.93 cm) x Depth: 6.5" (16.51 cm)
Enclosure	NEMA 4X fiberglass / polyester with lexan window for indoor and outdoor locations.
Conduit Connection	3/4" NPT conduit hubs, 9 provided, for sensor, power, & relay wiring.
Wiring Termination	Screw type terminal block, 14 gauge max.
Power	115 VAC, 220 VAC, or 24 VDC nominal. Battery backup option available.
Optional Accessories	Strobe light, and battery backup assembly.
Controls	Touchscreen, reset button.

Environmental

Operating Temperature	-40°F to 122°F (-40°C to 50°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Enclosure Rating	NEMA 4X enclosure, chemical and weather resistant. Suitable for indoor and outdoor installations.

Inputs

Direct Wired Sensors	LEL, Oxygen, Carbon Dioxide, and various toxic gas sensors. Amplifier not required for less than 500 feet.
4-20 mA	Accepts any 4-20 mA transmitter (24 VDC, 2 or 3 wire). A wide variety of RKI/Riken sensors are available with 4-20 mA signals. Wiring distances up to 8,000 feet. Compatible with: S2 Series, M2A, T2A, T3A, VOC Pro, Air Alert, GD-70D, and others.
Modbus	Accepts M2A, T3A, VOC Pro, Air Alert.
Sampling Methods	Diffusion and sample draw heads available.

Outputs

Relays	Four common Form C (C, NO, NC) relays (Fail, Alarm-1, Alarm-2, Alarm-3). Common relays may optionally be assigned to function as additional channel alarm relays, providing for up to three alarm relays per channel. Additional relays available on optional relay cards. 115/220VAC, 6A, or 30VDC contact relay.
4-20 mA	Signal output, 4-20 mA (maximum load impedance 500 ohms output), per channel.
RS-485 Modbus	Modbus format RS-485 serial output of all channel data, including gas reading and alarm status.
Ethernet	Modbus TCP/IP output of all channel data, including gas readings and alarm status.
Display	7" Color LCD display of all 32 channels.
Audible	Built-in audible alarm, 90 dB, mounted on enclosure. Coded output: pulsing = gas alarm, steady = fail
Visual	1. Touchscreen indications for each channel reading • Alarm 1 = yellow • Alarm 2 = orange • Alarm 3 = red • Fail = red 2. An optional 24 VDC NEMA 4X strobe mounted to top of case.
Datalogging	Included as standard for all 32 channels. Records to SD card.

Approvals

Approvals	QPS Certified to CSA C22.2 No. 61010-1 and UL61010-1
Warranty	One year materials and workmanship.

* Specifications subject to change without notice.



Toll Free: (800) 754-5165 • Phone: (510) 441-5656
Fax: (510) 441-5650 • www.rkiinstruments.com

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