

8 CHANNEL WALL MOUNT CONTROLLER

Gas Detection For Life

Beacon™ 800 Model



Features

- Low cost versatile solution
- Capable of up to 8 separate channels
- Digital display of all 8 channels simultaneously
- Compact, weatherproof, NEMA 4X enclosure
- 115 VAC or 24 VDC operation
- Long life sensors (2+ years typical)
- Accepts any 4-20 mA transmitter
- Audible alarm with reset button
- Two programmable alarm levels per channel
- Common alarm and fail relays
- Relay rating 10 amps, form C
- Intrinsically safe design, CSA/NRTL

Industry Applications

- Petrochemical plants
- Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Gas, telephone, & electric utilities
- Parking garages
- Manufacturing facilities
- Steel
- Automotive
- HVAC

Gas detection should not be complicated. The Beacon™ 800 is gas detection simplified.

The Beacon™ 800 is a simplified, versatile, low cost fixed system controller for one to eight points of gas detection. It is microprocessor controlled and is capable of accepting up to 8 separate 4-20 mA sensor transmitters which can be either 2 or 3 wire. The Beacon™ 800 can be powered by either 24 VDC or 115 VAC. It is simple to operate and comes complete with a wall mount installation kit.

The 2 large digital displays have backlighting and easily identify both the gas type and the gas concentration for all 8 channels simultaneously. The Beacon™ 800 is also housed in a NEMA 4X rated case for a weather tight seal. This case design complies with lock out / tag out standards and can be fully secured. An external reset switch allows alarms to be silenced from outside the controller housing. The bottom mounted wiring hubs allow for easy wiring.

With 3 amp rated relays, the Beacon™ 800 can be wired directly to a variety of devices like alarm horns, buzzers, or lights. This eliminates the need for costly external relays from the controller to devices.

RKI offers the industry's widest selection of standard and toxic gas detection sensors, which can be utilized with the Beacon™ 800, providing gas monitoring protection for almost any application.

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Beacon™ 800 Model

Physical

| | | | |
|---------------------------|---|-------|--------|
| Dimensions | Height: | 12.5" | 318 mm |
| | Width | 11.0" | 279 mm |
| | Depth | 6.4" | 163 mm |
| Enclosure | Wall mounting grey polycarbonate with hinged cover. | | |
| Conduit Connection | 3/4" NPT conduit hubs, 4 provided for sensors, power, and relay wiring. | | |
| Wiring Termination | Screw type terminal block 14 gauge max. | | |

Environmental

| | |
|--------------------------|---|
| Operating Temp | 14°F to 122°F (-10°C to 50°C) |
| Storage Temp | -4°F to 158°F (-20°C to 70°C) |
| Relative Humidity | 0 - 100% RH |
| Enclosure Rating | NEMA-4X enclosure, waterproof, chemical, and weather resistant. |

Inputs

| | |
|-------------------------|---|
| 4-20 mA | Accepts any 4-20 mA transmitters (24 VDC, 2 or 3 wire). A wide variety of RKI / Riken sensors are available with 4-20 mA signals. (See list of detectable gases.) Wiring distances up to 5,000 feet. |
| Sampling Methods | Diffusion and sample draw heads available. |

Partial List Of Detectable Gases

Many other gases or ranges available. Contact RKI for gases or ranges not listed

| | | | | | |
|--|--------------|---|--------------|--|--------------|
| Ammonia (NH ₃) | 0 - 75.0 ppm | Combustibles | 0 -100% LEL | Nitrogen Dioxide (NO ₂) | 0 - 15.0 ppm |
| Arsine (AsH ₃) | 0 - 0.2 ppm | Diborane (B ₂ H ₆) | 0 - 30.0 ppm | Nitrogen Trifluoride (NF ₃) | 0 - 30.0 ppm |
| Boron Trichloride (BCl ₃) | 0 - 15.0 ppm | Fluorine (F ₂) | 0 - 5/15 ppm | Oxygen (O ₂) | 0 - 25.0 % |
| Carbon Dioxide (CO ₂) | 0 - 1.0 % | Hydrogen (H ₂) | 0 - 2000 ppm | Ozone (O ₃) | 0 - 1.0 ppm |
| Carbon Monoxide (CO) | 0 - 300 ppm | Hydrogen Chloride (HCl) | 0 - 15.0 ppm | Phosphine (PH ₃) | 0 - 1.0 ppm |
| Chlorine (Cl ₂) | 0 - 3.0 ppm | Hydrogen Fluoride (HF) | 0 - 9.0 ppm | Silane (SiH ₄) | 0 - 15.0 ppm |
| Chlorine Dioxide (ClO ₂) | 0 - 1.0 ppm | Hydrogen Sulfide (H ₂ S) | 0 -100.0 ppm | Sulfur Dioxide (SO ₂) | 0 - 30.0 ppm |
| Chlorine Trifluoride (ClF ₃) | 0 - 1.0 ppm | Nitric Oxide (NO) | 0 -100.0 ppm | TEOS (Si(OC ₂ H ₅) ₄) | 0 -15/30 ppm |

Outputs

| | |
|---------------------------------|---|
| Relays | 2 relays per channel 10 amp rating, SPDT isolated contacts. 1 set of common relays: – 2 for gas alarm levels – 1 for malfunction <i>Relays fully programmable for:</i> – Increasing or decreasing alarms – Latching or self reset alarms – Normally energized or normally de-energized – Time delay for alarm on and alarm off. |
| 24 VDC | 24 VDC output provided to operate sample drawing adapters. |
| Display | 2 alphanumeric displays with back-lighting. 16 characters per line; 4 lines each. All 8 channels continuously displayed. |
| Audible | Built-in audible alarm, 94 dB, mounted on enclosure. Coded Output: – pulsing = gas alarm – steady = fail |
| Visual | 4 visual LED alarms on front cover for alarm indications, pilot, and malfunction. |
| Optional Expansion Cards | Individual 4-20 mA (or 1 - 5 VDC) outputs Heavy duty relay card (4 each @ 30 amps) |
| Power | 115 VAC or 24 VDC <i>Optional</i> - 230 VAC Battery backup option available |

Warranty

One year materials and workmanship.

Made in the USA