

REGAL™ SERIES 3000 GAS DETECTOR



REGAL Chlorine or Sulfur Dioxide Gas Detectors are available in single or dual sensor versions and are designed for use wherever potential leakage would pose a risk to personnel and property.

STANDARD FEATURES

- The REGAL Gas Detector senses the presence of free chlorine and/or sulfur dioxide in the environment – at levels even lower than those mandated by OSHA.
- Accurately begins scanning the active sensors while displaying and transmitting correct data in one minute.
- A 3-digit numeric display and 12 LED color bargraphs show the chlorine and/or sulfur dioxide gas concentration.
- Bargraph LED's representing the highest detected gas level stay lit until manually reset even as the gas concentration decreases.
- Separate LED's indicate which gas (chlorine and/or sulfur dioxide) is currently being presented on the display and bargraph.
- Six relay circuits are included (2 Warning, 2 Danger, 1 Horn/Failure and 1 Latch). All relays except the Horn/Failure relay can be configured for normal or failsafe operation. All external alarms connected to the Horn/Failure relay can be silenced (turned off) using the SILENCE keypad button.
- External alarms connected to the 'latch' relay circuit will not activate until the latch time (adjustable between 0 and 240 seconds) is reached.

REGAL®
GAS DETECTOR

STANDARD FEATURES CONTINUED

- Warning, Horn/Failure, and Latch relays are SPDT. Danger relays are DPDT.
- Audible and relay 'warning' alarm at 1 PPM for chlorine and at 2 PPM for sulfur dioxide. 'Danger' alarm at 3 PPM for chlorine and at 5 PPM for sulfur dioxide.
- Internal Horn and Horn/Failure relay can be "on" continuously or "pulse" during an alarm event.
- Single or dual, un-powered 4-20 mA analog output circuit board.
- Maintenance free sensor. No need to flush, purge or recalibrate the sensor after an exposure to chlorine or sulfur dioxide gas.
- When checking sensor worthiness, the user can easily disable all alarm circuits for a timed 15 minute interval using the keypad. The relays are then automatically reasserted.
- Includes a program to simplify calibrating the detector using the keypad. User can also reset original factory calibration values if a mistake is made, by pressing one keypad button.
- When the optional battery back-up is used, and during a power outage, all displays are turned off to conserve battery power. Pressing any keypad button turns on the displays for one sensor scan cycle then turns them off again.
- A relay circuit test can easily be performed which sequentially activates and deactivates the six relays.

AVAILABLE OPTIONS

- Battery back-up to keep the unit active during power outages. The battery has the capacity to operate the unit for up to one day.
- Serial Communications Output Circuit Board. User has a choice of two interface standards (RS232 or RS485) and a choice of OPTO-22 or MODBUS protocol. Can also transmit in a continuous send mode of gas concentration for data logging.

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GENERAL SPECIFICATIONS

Power Supply	Input: 100-250 VAC 50/60 Hz. @ 0.6A peak. Inrush Current: 20A @ 115 VAC, 40A @ 130 VAC. Output: +15 V @ 1.7A current limited.
Fuse Protection	2.5 Amps (250 V) for 120/240 VAC.
Input Capability	1 or 2 Sensors. Must be specified at purchase.
Sensor Scan Display Rate	Approximately five second intervals.
Sensor Signal	4-20 mA, DC
Sensor Full Scale Response	For Chlorine - 10 PPM For Sulfur Dioxide - 20 PPM
Cable Lengths	(Based on using 22 gauge, 2-conductor shielded cable) Sensor Cable Length - 25' standard. Can be extended up to 1,000'. Battery Cable Length - 5'.
Resolution	For Chlorine - 0.1 PPM For Sulfur Dioxide - 0.5 PPM
Warning/Danger Alarm Points	Chlorine: 1 PPM/3 PPM Sulfur Dioxide: 2 PPM/5 PPM
Repeatability	±5%
Temperature Range	0-50°C (32-120°F)
Horn	Internal 95 db
Relays	Warning, Latch, and Horn/Failure relays are SPDT. Danger relays are DPDT. All relays are rated at 10 Amps @ 250 VAC and 50 or 60 Hz. All relays (except for the horn/failure relay) can be field configured for normal or failsafe operation.
Delay Timer for the LATCH Relay Circuit	Adjustable. 0 - 240 Seconds.
Isolated Analog Output	Isolated and un-powered 4-20 mA.
Battery Back-Up	12 Volt, 1.1 AH, Lead Acid Gel Cell in a vented enclosure.
Operating Humidity	0-99% Non-Condensing.
Monitor Enclosure	Wall Mounted Polycarbonate or ABS NEMA 4X. (7.87" X 7.87" X 5.25")
Sensor Enclosure	Wall Mounted, Watertight, UL Approved. (4.0" X 4.0" X 2.5")
Serial Communications (Opt.)	RS232 or RS485 using OPTO-22 or MODBUS Protocol. Baud Rate: 1200 - 115,200.

 **chlorinators incorporated**

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