

# Rig Rat III

## Multi-Point Wireless Gas Detection System

**Gases Monitored:** Change the gas monitored and/or the measuring range at any time.

- Combustible Gases/Vapors
- Oxygen
- Toxics: Ammonia  
Carbon Monoxide  
Chlorine  
Chlorine Dioxide  
Ethanol  
Ethylene Oxide  
Hydrogen  
Hydrogen Chloride  
Hydrogen Cyanide  
Hydrogen Sulfide  
Nitric Oxide  
Nitrogen Dioxide  
Ozone  
Sulfur Dioxide

**Power Independence:** The following sensor configuration lists the duration of the internal, rechargeable battery life (per charge):

- 2 toxic sensors: Up to 30 days
- 1 toxic, 1 LEL: Up to 5 days
- 2 LEL sensors: Up to 3 days

*Note: Battery life will vary depending on transmission interval.*

### Order Information

For full system order information and system configuration, contact BW Technologies.

**RR-3000:** Rig Rat III Wireless Gas Detector (standard) comes with one 5 DBI antenna.

**RR-3000S:** Rig Rat III Non-Wireless Gas Detector comes complete with all standard Rig Rat III components, except antenna and transceiver.

**RR-3C04:** Rig Rat III 4-Channel Controllers are capable of simultaneous display and annunciation of up to 8 remotely located sensors.

**RR-3CMBUS:** RS485 MODBUS output module.

**RR-REP1-4:** Rig Rat Repeater re-transmits wireless signal from four (4) detectors to controller.

### SPECIFICATIONS

- SYSTEM:** Modular Multi-Point Wireless Gas Detection System  
**Signal Transmission:** 2.4 GHz licence free, ISM band spread-spectrum RF transceiver. User-settable discrete codes.  
**Distance:** Up to 1.8 mi. / 3 km, depending upon antenna configuration
- GAS DETECTOR:** Independent Rig Rat III detector with radio transceiver  
**Power:** 12 volt, 3.4 amp hr. rechargeable battery  
**Battery Life:** Up to 30 days, without active recharge (dependent on sensors)  
**Recharge:** Via solar power; line (24 VDC direct, 110/230 VAC) or bench chargers
- ALARMS:** Clearly advises alarm levels both audibly and visually  
**Visual Alarms:** Large, red flashing light  
 LCD: alarm level present, sensor affected and alarm type  
 Oscillating 85 dB at 3 ft. / 1 m (typical)  
**Audible Alarm:** Oscillating 85 dB at 3 ft. / 1 m (typical)  
**Gas Alarm Levels:** Two per sensor (LOW, HIGH) with field-settable setpoints  
**Other Alarms:** Fault advises missing sensor, damaged cable and/or low battery alarm
- LCD DISPLAYS:** Two continuous, alphanumeric gas readouts and status displays:  
 Gas ppm or %: Simultaneously and continuously displays gas concentration (s) present  
**Status Indicators Advise:** Transmitter status, battery level, sensor fault, alarm level setpoints
- CONTROLS:** Three:  
 1. Power ON/OFF  
 2. Transmitter (XMTR) DISABLE  
 3. Transmission TEST
- PORTS:** Two sensor ports; two option ports; charger port; TNC antenna port  
**SECURITY:** Keylock access to control panel
- GENERAL SPECIFICATIONS:** 14 gauge stainless steel, Nema 4, RFI/EMI shielded  
**Humidity:** 5% to 95% RH (non-condensing)  
**Size:** 8.46 x 11.26 x 4.53 in. / 21.49 x 28.6 x 11.51 cm  
**Weight:** 11 lbs. 6 oz. / 5.15 kg
- GAS SENSORS:** Remote interchangeable plug-in units  
**Type:** Combustibles: catalytic bead; toxics and oxygen: electrochemical  
**Powered:** By the detector  
**Humidity:** 5% to 95% RH (non-condensing)  
**Temperature Range:** Combustibles: -40 to +50 °C / -40 to +122 °F  
 Hydrogen Sulfide: -40 to +50 °C / -40 to +122 °F  
 Ammonia: -25 to +35 °C / -13 to +95 °F  
 Other toxics and oxygen: -20 to +50 °C / -4 to +122 °F
- Physical:** Toxic/O<sub>2</sub>: stainless steel, Nema 4  
 Combustible: maintenance-free, encapsulated, Nema 4
- Warranty:** 2 years, including all sensors (except NH<sub>3</sub> and PH<sub>3</sub>- 1 year)

Gas Monitoring Specifications	LCD Increments	Standard Measuring Ranges Available						
		Units	#=1	#=2	#=3	#=4	#=5	#=6
Combustibles (encapsulated)	1 % LEL	%	0-100					
Hydrogen Sulfide	1 ppm	ppm	0-100	0-50	0-500	0-20	0-30	
Sulfur Dioxide	1 ppm	ppm	0-100	0-50	0-20	0-10		
Ammonia	1 ppm	ppm	0-50	0-100			0-150	
Carbon Monoxide	1 ppm	ppm	0-500	0-1000	0-100	0-50	0-200	0-600
Chlorine	0.1 ppm	ppm	0-5.0	0-10.0	0-100			
Oxygen	0.1%	%v/v	0-25.0%	0-30.0%				
Other Gases	Contact BW Technologies							

- CONTROLLERS:** Standard controller (RR-3C04) for up to 4 Rig Rat III detectors  
**Signal Output:** Modbus (RS - 485) -optional  
**Signal Input:** Discretely coded radio signals from each detector  
**Power:** 110 VAC; 230 VAC (selectable)  
**Battery Backup:** Two 12 VDC rechargeable batteries (normal operation: up to 4 hrs.)
- ALARMS:**  
**Visual:** LCD displays alarm level present, sensor affected and alarm type  
**Audible:** 85 dB at 3 ft. / 1 m (typical)
- ALARM RELAY OUTPUTS:** Four (4) SPDT relays; 10 amp @ 110 VAC/24 VDC, 8 amp @ 230 VAC
- INDICATORS:** LEDs (four / channel); 2 alarm indicators, 1 fault, 1 channel enable  
**CONTROLS:** One ON/OFF switch; one ENABLE/DISABLE switch per channel and one momentary reset/test switch

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