



ToxGas Ranger™ Series

Single Gas Sample Draw System

Model R-4344

Self-Contained Sample Draw System for Toxic Gas Monitoring

- * Includes sample pump, coalescing filter, visual flow meter & cal port
- * High performance electrochemical sensors
- * High quality pump with 24VDC brushless motor
- * Coalescing filter with optional auto-drain feature for hot/wet applications
- * Built-in flow meter provides visual confirmation of sample flow rate
- * Prompted calibration procedure and cal port for easy maintenance
- * Accepts sample lines up to 100 ft length
- * Dual programmable 5A relays for low and high alarm indication
- * Optional wireless output to ToxGas Ranger™ Series controllers via radio module
- * Operates on 12-24VDC or built-in 110/220VAC power supply
- * Setup requires simple magnetic wand
- * Manufactured in USA

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The R-4344 sample draw system is designed to measure the level of toxic gasses in confined spaces where the atmosphere is too hot, too wet or too dusty for traditional diffusion sensors. The R-4344 combines a state of the art gas monitor with a long-life DC brushless sample pump, stainless steel coalescing filter with optional automatic moisture drain, adjustable flow meter, low flow warning switch, optional audible and visual warning devices, convenient calibration gas inlet and built-in 110/220 VAC power supply. Both wired and wireless outputs are available.

Toxic Gas Monitor

The state-of-the-art toxic gas monitor provides a high contrast backlit graphic display that shows real-time engineering units as well as 30 minute trend data. Flashing LEDs draw immediate attention to alarm conditions. An internal real-time clock and event log time-stamps calibration and alarm events for later review, while the menu-driven operator interface eliminates all analog potentiometers and allows easy setup and calibration using only a magnetic wand.



An integrated Run / Calibrate valve and user prompted calibration procedure make routine maintenance and field 'bump tests' quick and easy.

Designed for Hostile Environments

Highly corrosive gasses, especially when combined with moisture and elevated temperatures often found in wastewater and water treatment plants, can be problematic. The R-4344 is designed with stainless steel or inert materials throughout for reduced maintenance costs and increased reliability. The coalescing filter and optional peristaltic drain pump effectively eliminate the moisture build-up typically found in these applications.

Output Options

The R-4344 offers a single 4-20mA current loop and 3x SPDT alarm relays. Wireless outputs include both 900Mhz and 2.4Ghz MODBUS modems compatible with ToxGas Ranger™ Series receiver / controllers. Point-to-point wireless with remote 4-20mA output and flow warning relay also available.

ToxGas Ranger™ Series R-4344 Specifications

Power Input	+18 to +28VDC input, less than 10 watts 110/ 220VAC input with optional AC supply
Display	Backlit 64 x 128 pixel high contrast LCD with engineering units and 30-minute trend
Sensor	High performance electrochemical sensor: Chlorine, Hydrogen Sulfide, Ammonia or other gases upon request
Sample Filter	Compatible material filter body with replaceable 0.1 micron coalescing filter element
Filter Drain	Optional peristaltic pump periodically extracts moisture from coalescing filter for continuous operation in high humidity applications
Standard Output	Standard 3-wire 4-20mA current source. Max loop R is 750 ohms with normal 24VDC power supply. Three Form C Relays 5A @ 30VDC/ 240VAC plus RS-485 2-wire MODBUS® slave interface. Fault relay configured to indicate sensor FAULT or LOW FLOW
Optional Output	Wireless MODBUS® modem compatible with ToxGas Ranger™ Series Receiver/ Controllers. Wireless 4-20mA output with matching receiver module. Transmits 4-20mA and low monitoring relay contact closure
Sample Pump	1.6 LPM diaphragm pump with brushless 24VDC motor
Operating Temp	-10°C to +55°C operating -25°C to +60°C storage
Housing	High impact polycarbonate enclosure with easy-to-remove smoked cover. Latches and hinges do not penetrate enclosure. Optional NEMA 4X stainless steel enclosure with windowed door
Dimensions	Polycarbonate enclosure: 14.75" x 12.75" x 7" Shipping weight 12 pounds
Sample Inlet/Outlet	1/4" compression, stainless steel fitting for sample inlet, sample outlet and filter drain outlet
Signal Inlet/ Outlet	Single 1/2" conduit fittings for DC powered units Dual 1/2" conduit fittings for AC powered units
Approvals	Model R-4344 for use in non-hazardous areas only
Warranty	Two years from date of purchase on electronics, one year on sensor. Note: Power must be applied to electrochemical sensor within three months of purchase or sensor life may be reduced

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