RAE SYSTEMS by Honeywell

AreaRAE Steel

Rapidly Deployable, Wireless Multi-gas Monitor

AreaRAE Steel is a multi-gas, wireless monitor. Housed in a stainless-steel enclosure, it is rugged, portable and weather resistant, ensuring that it can withstand harsh environments. The AreaRAE Steel can monitor up to five threats, including VOCs, LEL, Oxygen, and two user-selectable toxic sensors. Strategically placed AreaRAE Steel monitors can be used to quickly establish a perimeter, allowing individuals to back off to a safe position and receive readings from up to 2 miles (3 km) away.

- **View real-time sensor data and alarm status at command center**
- **ProRAE Guardian software simultaneously controls and displays their readings for up to eight remote detectors**
- **License-free, ISM wireless transmission with communication range up to 2 miles (3km), extendable with RAELink Repeaters**

KEY FEATURES

Integrated
- Up to five sensors (PID, LEL, O_2 and two toxic)
- Wireless data transmission up to 2 miles (3km)
- Built-in sampling pump
- Optional GPS

Easy to Use
- Loud buzzer and large, extra-bright warning light
- Large LCD display and keypad
- Interchangeable Lithium-ion or alkaline battery pack

Durable
- Rugged, stainless-steel housing
- Weather-resistant
- Continuous operation via AC source

APPLICATIONS
- HazMat and Emergency Response
- Refineries and Petrochemical Plants
- Power Plants
- Pulp and Paper Industry
- Plant and Mill Turnarounds
- Marine and Offshore Wells

A HazMat Team utilizes the strategically-placed AreaRAE to provide real-time detector to establish a perimeter and monitor PID, LEL and VOC readings.

Wireless   GPS   ISO 9001 CERTIFIED   CSP us   CE

AreaRAE Steel

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SPECIFICATIONS

Size	9.25" L x 5.0" W x 9.25" D (235mm L x 127mm W x 235mm D) without handle
Weight	13.85 lbs (6.3 kg) with battery pack
Sensors	Up to five sensors (O_2, combustible, two toxic and VOC), electrochemical sensors for toxic gases and oxygen, photoionization detector for VOC, catalytic combustion sensor for combustible gases
Battery	Rechargeable, 7.4V/4.5Ah, Lithium-ion battery pack with built-in charger (less than 10 hours charge time) or a 6 C-size alkaline battery pack
Operating Hours	Up to 18 hours continuous operation on battery power
Display	2-line, 16-digit LCD with manually activated LED back light
Keypads	3 operation and 4 programming keys
Direct Readout	Instantaneous values, sensor name, high and low values for all detectors, TWA and STEL values for toxic gases and VOCs, battery voltage and elapsed time
Alarm	Flashing red LED cluster to indicate exceeded preset limits, low battery or sensor failure
Alarm Setting	Separate alarm limit settings for TWA, STEL, Low and High alarm
Audible Alarm	110 dB buzzer at 10cm (typical)
Visible Alarm	Flashing red LED cluster
Alarm Mode	Latching/automatic reset
Datalogging	4,000 points for each sensor with time stamp, serial number, user ID, site ID
Data Storage	20,000 readings (64 hours, 5 channels at 1-minute intervals) in non-volatile memory
Datalog Interval	Programmable 1 to 3,600 sec
Communication	Upload data to PC and download monitor setup from PC through RS-232 link to serial port on PC
EMC/RFI	EMC directive: 2004/108/EC. EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm Contact: ±4kV Air: ±8kV, no alarm
Safety Certification	CSA Classified for use in Class I, Division 2, Groups A, B, C, and D
RF Range	Up to 2 miles, extendable with Repeaters
Error Detection	32 bit CRC, resend on error
Calibration	Two-point field calibration for fresh air and standard reference gas
Sampling Pump	Internal integrated diaphragm pump with programmable High (400cc/min) and Low (300cc/min) flow rate settings
Low Flow Alarm	Auto shutoff pump at low flow condition
Temperature	-20° to 45° C (-4° to 113° F)
Humidity	0% to 95% relative humidity (non-condensing)
Attachment	Shoulder strap, optional tripod/wall mounting bracket
Optional	Integrated GPS receiver
Wireless Frequency	ISM license free band (902 - 928 MHz)
Wireless Approvals	FCC Part 15, Others[1]

[1] Contact RAE Systems for country specific wireless approvals and certificates.

Specifications are subject to change.

SENSOR SPECIFICATIONS

Gas Monitor	Range	Resolution
Oxygen	0 to 30.0%	0.1%
Combustible	1 to 100% LEL	1% LEL
VOCs	0 to 199 ppm 200 to 2,000 ppm	0.1 ppm 1 ppm
Carbon Monoxide	0 to 500 ppm	1 ppm
Carbon Monoxide	10 to 2000 ppm	10 ppm
Hydrogen Sulfide	0 to 100 ppm	1 ppm
Sulfur Dioxide	0 to 20.0 ppm	0.1 ppm
Nitric Oxide	0 to 250 ppm	1 ppm
Nitrogen Dioxide	0 to 20.0 ppm	0.1 ppm
Chlorine	0 to 10.0 ppm	0.1 ppm
Hydrogen Cyanide	0 to 100 ppm	1 ppm
Ammonia	0 to 50 ppm	1 ppm
Phosphine	0 to 5.0 ppm	0.1 ppm
Hydrogen Chloride	Call RAE Systems	
Hydrogen Fluoride	Call RAE Systems	

Specifications are subject to change.

MONITOR ONLY INCLUDES:

- Monitor as specified
- Sensors as specified
- Calibration adapter
- Operation and maintenance manual
- Rechargeable Lithium-ion battery pack
- 120/240 VAC AC/DC Adapter
- Spare alkaline battery pack
- 10 spare external filters
- 5 Internal filters
- Hard transport case with pre-cut foam padding
- Tool kit

INSTRUMENT WITH CALIBRATION ALSO INCLUDES:

- Calibration gas (multiple cylinders possible, depending on the sensors installed)
- Calibration regulator and tubing (second regulator possible, depending on the types of calibration gases included)

environmental
SCIENCE
AND TECHNOLOGY

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