![RAE Systems by Honeywell logo]

AreaRAE Steel Z2

Rapidly Deployable, Wireless Multi-gas Monitor

AreaRAE Steel Z2 is a one- to five-gas wireless monitor that delivers ATEX Zone 2 certification in an extremely rugged stainless-steel enclosure designed for applications in harsh environments. The AreaRAE Steel Z2 can detect up to five threats, using a photoionization detector for parts-per-million measurement of volatile organic compounds, a gamma radiation detector, an LEL combustible gas sensor, an oxygen sensor, and specific electrochemical toxic sensors.

An integrated wireless modem allows the AreaRAE Steel Z2 to transmit real-time data to a base station located up to 3 km (2 miles) away.

- View real-time sensor data and alarm status at command center
- ProRAE Guardian software simultaneously controls and displays readings for remote detectors and storage data
- Optional GPS provides ability to track and display readings from remote detectors
- License-free, ISM wireless transmission with communication range up to 3 km, extendable with RAELink2E Repeaters
- Fully hardware and software compatible with standard AreaRAE network components

KEY FEATURES

Integrated
- Up to five sensors (PID, LEL, O_2 and two toxic)
- Built-in sampling pump

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

Durable
- Rugged, stainless steel housing (IP65)
- Weather-resistant

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.

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SPECIFICATIONS

Size	235mm L x 127mm W x 235mm D (9.25" L x 5.0" W x 9.25" D) without handle
Weight	6.3 kg (13.85 lbs) with battery pack
Sensors	Up to five sensors (PID, LEL, Gamma, and two selectable toxics; or PID, LEL, Gamma, O_2, and one selectable toxic)
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
EM Immunity	No effect when exposed to 0.43 mW/cm_2 RF interference (5-watt transmitter at 30cm)
Safety Certification	ATEX EX II 3G EEx nAL IIC T6
Frequency	869 MHz (license-free), 2 channels
RF Range	Up to 3 km (2 miles), extendable with RAELink 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)
IP Rating	IP-65 (waterproof)
Attachment	Shoulder strap, optional tripod/wall mounting bracket
Optional	Integrated GPS receiver

Specifications are subject to change

SENSOR SPECIFICATIONS

Radiation	DER Range	Energy Range	Sensitivity
Gamma	1 to 4000 µR/h (0.01 to 40 µSv/h)	0 060 to 3.0 MeV	>100 cps /µSv/hr

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

STANDARD MONITOR 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
- 3 spare external 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)