Wireless Area Monitor
for Detecting Dangerous Gases

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RAE Systems AreaRAE Pro

The AreaRAE Pro is a wireless, transportable area monitor that can simultaneously detect toxic and combustible gases, volatile organic compounds, radiation and meteorological factors. Whether you're carrying it into a hazmat response, setting up perimeter at a fire or protecting a public venue, the AreaRAE Pro works with Honeywell's remote monitoring software to give you a real-time view of threat readings so you can make real time decisions to ensure the safety of your teams and the general public.

FEATURES

AreaRAE Pro delivers maximum flexibility and versatility in one device:

- **Up to six 4R+ sensors for toxic and combustible gas.**
  Choose from a mix of up to 20 sensors based on your needs and switch them out whenever your needs change.

- **7R+ photoionization detector.**
  Monitor VOCs in parts per million, with built-in compensation for temperature and humidity.

- **Meteorological sensor for tracking toxic plumes.**
  Honeywell's compact RAEMet sensor sits at the top of the AreaRAE Pro and measures wind speed, wind direction, temperature and humidity. This information is then modeled in Honeywell's real time monitoring software which integrates the ALOHA hazard monitoring program.

- **Optional gamma sensor for radiation detection.**
  Detect and measure gamma radiation with increased sensitivity and faster response without using an additional sensor slot.

APPLICATIONS

- **First Responders**
- **Hazmat**
- **Civil Defense & Military**
- **Public Venue Protection**

EASE AND FLEXIBILITY

- **Available in Rapid Deployment Kit for quick threat assessment**
- **User-friendly interface; turn it on and go**
- **Supports long-distance remote monitoring**
- **Built-in mesh modem for short-range monitoring — no external router required**
- **Flexible power options for short and long-term deployments**
- **Easy to hear and see, with 108-decibel alarm**
- **Easy USB connection to configuration software**

REMOTE VISIBILITY ON THREATS

- **Delivers real-time readings to Honeywell's remote monitoring software, so you can instantly determine the location and severity of a threat**
- **Map-based display is accessible from any computer with an internet connection — or from our laptop as a turnkey host**
- **Enables coordination and data sharing in joint operations**

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.
2650 East 40th Avenue • Denver, Colorado 80205
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com   website: www.geotechenv.com

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SPECIFICATIONS

Dimensions	12.36" x 12.04" x 6.53" (314 x 306 x 166 mm) with rubber boot
Weight	13.88 lb. (6.3 kg) full option configuration 14.33 lb. (6.5 kg) full option configuration +RAEMet
Gas Sensor Slots	Up to 7; see Sensor List
Additional Sensors	Gamma RAEMet (Wind Speed, Wind Direction, Temperature & Humidity)
GPS	Standard equipment in every unit
Battery	Rechargeable 7.2V/10 Ah Li-ion battery pack with built-in charger
Operating Hours	~16 hours with wireless connectivity on Li-ion battery pack Specification at room temperature (20°C)
Power Input	AC adapter with Input 110-240V AC
Display	Large 240 x 320 pixel LCD backlit display 2.5" x 3.33" (64 x 85 mm)
Keypads	3 operation and programming keys
Alarms	Multi-tone 108dB buzzer @ 3.3 ft. (1 m), bright LED 360 degree view and on-screen indication of alarm conditions Additional diagnostic alarm and display message for low battery Wireless connectivity alarm
Data Logging	Continuous data logging 90 days for 7 gas sensors, 1 Gamma sensor, 1 RAEMet (wind speed & direction, temp and RH), and GPS at 1 min. intervals, 24/7
Data Storage	24M bytes (memory full action: stop when full or Wrap around)
Data Interval	User-configurable from 1 to 3,600 sec.
Wireless[1]	Bluetooth Low Energy module (BT4.0) and GPS Primary Radio Module: - Long range ISM License Free 900MHz or 2.4GHz radio - IEEE 802.11 b/g Wi-Fi Secondary Radio Module: Short range IEEE 802.15.4 900MHz or 868MHz Mesh Radio Wireless Range[3]: Up to 2 miles (3 km) for ISM 900 MHz Up to 1.2 miles (2 km) for ISM2.4GHz Up to 330 ft. (100m) for Wi-Fi Up to 650 ft. (200m) for Mesh secondary radio Up to 15 ft. (5m) for BLE. Wireless Approval: FCC Part 15, CE R&TTE, Others[4]
Communication	Communicates to ProRAE Studio II via USB cable to PC Wireless data and alarm status transmission via Wi-Fi or ISM modem Act as gateway to connect up to 8 remote instruments (using secondary radio module)
Safety Certification	Class 1, Division 2 Groups A, B, C, D
Sampling Pump	Built-in pump, typical flow rate 450 cc/min.
Temperature	-20°C to +50°C (- 4°F to +122°F)
Humidity	0% to 95% relative humidity (non-condensing)
Ingress Protection (IP)	IP 65
Performance Tests	MIL-STD-810G and 461F LEL CSA C2.2No. 152, ISA-12.13.01
Warranty[2]	Two years on non-consumable components and catalytic LEL, CO, H_2S, and O_2 sensors Six months for 9.8 eV lamp PID sensor One year on all other sensors, battery, and other consumable parts Two years for 10.6eV 7R+ PID Lamp

RAEMET SPECIFICATIONS (Optional)

Wind Speed	Range: 0 to 20 m/s (0 to 44 mph) Start Speed: 0.1 m/s (0.22 mph)
Wind Direction	Range: 360° (No dead band)
Temperature	-20°C to 60°C (-4°F to 140°F) Resolution 0.1°C (1.8°F)
Humidity	10 to 95% RH Resolution 1% RH
Compass	Resolution 1°
Power	Power supplied by the AreaRAE Pro

[1] Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission
[2] Against factory defects
[3] Receiving > 80%
[4] Contact Geotech for country specific wireless approvals and certificates
Specifications are subject to change

SUPPORTED SENSORS

SENSOR	RANGE	RESOLUTION
PID SENSORS		
4R+; 10.6 eV ppb	0 to 2,000 ppm	10 ppb
7R+; 10.6 eV ppb	0 to 2,000 ppm	10 ppb
4R+; 9.8 eV	0 to 2,000 ppm	0.1 ppm
COMBUSTIBLE SENSOR		
Catalytic Bead Sensor	0 to 100% LEL	1% LEL
ELECTROCHEMICAL SENSORS		
Ammonia (NH_3)	0 to 100 ppm	1 ppm
Carbon Monoxide (CO)	0 to 500 ppm	1 ppm
Carbon Monoxide Ext. (CO HR)	0 to 2,000 ppm	10 ppm
Carbon Monoxide H_2 Comp (CO H_2 Comp)	0 to 2,000 ppm	10 ppm
Chlorine (Cl_2)	0 to 50 ppm	0.1 ppm
Chlorine Dioxide (ClO_2)	0 to 1 ppm	0.03 ppm
Ethylene Oxide (ETO-A)	0 to 100 ppm	0.5 ppm
Ethylene Oxide (ETO-B)	0 to 10 ppm	0.1 ppm
Ethylene Oxide (ETO-C)	0 to 500 ppm	10 ppm
Hydrogen (H_2)	0 to 2,000 ppm	10 ppm
Hydrogen Chloride (HCl)	0 to 30 ppm	1 ppm
Hydrogen Cyanide (HCN)	0 to 50 ppm	0.5 ppm
Hydrogen Fluoride (HF)*	0.5 to 10 ppm	0.1 ppm
Hydrogen Sulfide (H_2S)	0 to 100 ppm	0.1 ppm
Hydrogen Sulfide Ext. (H_2S HR)	0 to 1,000 ppm	1 ppm
Oxygen (O_2)	0 to 30%	0.10%
Sulfur Dioxide (SO_2)	0 to 20 ppm	0.1 ppm
Nitric Oxide (NO)	0 to 250 ppm	0.5 ppm
Nitrogen Dioxide (NO_2)	0 to 20 ppm	0.1 ppm
Phosphine (PH_3)	0 to 20 ppm	0.1 ppm
GAMMA RADIATION SENSOR		
Gamma I-Sensor	0.01 µSv/h to 0.2 mSv/h (1 µrem/h to 0.02 rem/h)	50 keV to 3 MeV

*Contact Geotech for availability

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