



AreaRAE Pro

Remote visibility on more threats than ever for a new level of real-time situational awareness

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.

AreaRAE Pro delivers maximum flexibility and versatility in one device:

- **Up to six 4R+ sensors for toxic and combustible gas.**

AreaRAE Pro offers more than 20 interchangeable sensors that can be swapped at a moments notice to meet the changing needs of first responders.

- **7R+ photoionization detector.**

Monitor VOCs in parts per billion, with built-in compensation for temperature and humidity.

- **Meteorological station 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
- Device Management with Honeywell Sotera™

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



Specifications

DIMENSIONS	314 x 306 x 166 mm (with rubber boot) 12.36" x 12.04" x 6.53" (with rubber boot)
WEIGHT	6.3 kg (13.88 lb) full option configuration 6.5 kg (14.33 lb) full option configuration (+RAEMet)
GAS SENSORS 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 7.2 V / 10 Ah Li-ion battery pack with built-in charger Alkaline Battery Adapter
OPERATING HOURS	~20 hours with wireless connectivity on Li-ion battery pack ~12 hours with wireless connectivity on Alkaline battery adapter Specification at room temperature (20°C)
DISPLAY	Large 240 x 320 pixel LCD backlit display 64 x 85 mm / 2.5" x 3.33"
KEYPADS	3 operation and programming keys
ALARMS	Multi-tone 108 dB 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 900 MHz or 2.4 GHz radio - IEEE 802.11 b/g Wi-Fi Secondary radio module: Short Range IEEE 802.15.4 900 MHz or 868 MHz Mesh Radio Wireless range ² : Up to 2 miles (3 km) for ISM 900 MHz; Up to 1.2 miles (2 km) for ISM 2.4 GHz; Up to 330 ft (100m) for Wi-Fi; Up to 660 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	US / Canada: 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 C22.2No. 152, ISA-12.13.01
WARRANTY ²	Four years for O ₂ Liquid Oxygen sensors Three years for CO ₂ and H ₂ S sensors Two years for non-consumable components, catalytic LEL sensor and 10.6eV 7R+ PID lamp One year on all other sensors, battery, and other consumable parts Six months for 9.8eV lamp PID sensor

RAEMet SPECIFICATIONS	
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

¹Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission

²Against factory defects

³Receiving > 80%

⁴Contact RAE Systems for country specific wireless approvals and certificates
Specifications are subject to change

Supported Sensors

SENSOR	RANGE	RESOLUTION
PID SENSORS		
4R+; 10.6eV 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
NDIR SENSOR		
CARBONE DIOXIDE (CO ₂)	0 to 50,000 ppm	100 ppm
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 15 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 ₂ S)	0 to 100 ppm	0.1 ppm
HYDROGEN SULFIDE EXT. (H ₂ S 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