



ToxiRAE Pro

Personal Wireless Monitor for Toxic Gases and Oxygen

The ToxiRAE Pro is the world's first wireless personal monitor for toxic gases and oxygen¹. The ToxiRAE Pro can detect a broad range of gases—from carbon monoxide, hydrogen sulfide, and oxygen to ammonia, chlorine, and formaldehyde². The ToxiRAE Pro provides safety professionals wireless remote access to real-time instrument readings and alarm status for better visibility and faster incident response. The ToxiRAE Pro's intelligent interchangeable sensors store calibration data, which allows users to monitor for one gas one day and another gas the next, by simply swapping the sensors in the ToxiRAE Pro³.

- Wireless elevates safety to the next level
- Over 20 intelligent interchangeable sensor options to cover a wide variety of gases
- Man Down Alarm with real-time remote wireless notification
- Easy to maintain with replaceable sensor, filter, and Li-ion battery
- Fully-automatic bump testing and calibration with AutoRAE 2²

Applications

- Agriculture
- Chemical
- Fire service / HazMat
- Food and beverage
- Oil and gas
- Pharmaceutical
- Pulp and paper
- Steel manufacturing
- Water and wastewater industries

Optional Accessories

- AutoRAE 2 Automatic Test and Calibration System
- Multi-unit charging station for up to five monitors



ToxiRAE Pro Comes With:

- ToxiRAE Pro monitor with sensor as specified, alligator clip, protective rubber boot, and rechargeable battery installed
- Charging and PC communication cradle
- PC communication cable
- AC adapter (100 to 240 V, 50/60 Hz AC to 12 V DC)
- Calibration adapters
- Quick Start Guide
- CD with documentation
- Calibration card, quality certificate, and warranty/registration card

FEATURES & BENEFITS

- Wireless access to real-time instrument readings and alarm status from any location
- Unmistakable five-way local and remote wireless notification of alarm conditions
- Intelligent sensors store calibration data, so they can be swapped in the field
- Most electrochemical sensors are shared with MultiRAE family instruments
- Largest display in its class
- Continuous datalogging
- Easy to use
- Reliable, rugged, and intrinsically safe
- Device Management with Honeywell SafetySuite





ToxiRAE Pro Specifications

INSTRUMENT SPECIFICATIONS	
SIZE	4.6" H x 2.4" W x 1.2" D (118 x 60 x 30 mm)
WEIGHT	7.76 oz. (220 g)
SENSORS	Over 20 intelligent interchangeable field-replaceable electrochemical sensors
BATTERY	Rechargeable Li-ion battery - Operating time: > 30 hours (normal operation, non-wireless) - Recharge time: < 4 hours through charging cradle
DISPLAY	Graphical LCD display with white LED backlighting (activated when monitor is in alarm or with a button press)
DISPLAY READOUT	- Real-time reading of gas concentrations in parts per million (ppm) or mg/m ³ ; battery status; data logging on/off; wireless on/off and reception quality - STEL, TWA, and peak values
KEYPAD	2 buttons for operation and programming
SAMPLING	Diffusion
CALIBRATION	Automatic with AutoRAE 2 Test and Calibration System ² or manual
ALARM MODES	- Wireless remote alarm notification; audible (95 dB @ 30 cm), vibration, visible alarm (flashing bright red LEDs), and on-screen indication of alarm conditions. - Man Down Alarm with pre-alarm and real-time remote wireless notification
DATALOGGING	Continuous datalogging with a three-month capacity (at one-minute intervals) - User-configurable datalogging interval (from 1 to 3,600 seconds)
COMMUNICATION AND DATA DOWNLOAD	- Data download and instrument set-up on PC via charging and PC comm. cradle - Data download via AutoRAE 2 Automatic Test and Calibration System - Wireless data and status transmission ¹ via built-in RF modem (optional)
WIRELESS NETWORK	ProRAE Guardian Real-Time Wireless Safety System or Closed Loop Network with the EchoView Host
WIRELESS RANGE (TYPICAL)	ToxiRAE Pro to Mesh Router, EchoView Host, or Mesh Reader ² ~ 660 feet (200 meters) ToxiRAE Pro to RAELink3 Mesh or RAELink3 Z1 Mesh modems ~ 330 feet (100 meters)
OPERATING TEMPERATURE	-4° to 131°F (-20° to 55°C)
HUMIDITY	0% to 95% relative humidity (non-condensing)
DUST AND WATER RESISTANCE	IP-65 rating for dust and water ingress protection (validated by an independent test laboratory)
SAFETY CERTIFICATIONS	CSA: Class I, Division 1, Groups A, B, C and D, T-code T4 Class I, Zone 0 A/Exia IIC T4 ATEX: CE, II 1G, Ex ia IIC Ga T4 IECEX: Ex ia IIC Ga T4 China Ex: Ex ia IIC T4
EMC/RFI	EMC directive: 2004/108/EC
WARRANTY	- Two years on O ₂ sensor - Three years on H ₂ S and CO sensors - Two years on non-consumable components - One year on all other sensors, battery, and other consumable parts
WIRELESS FREQUENCY	ISM license-free band. IEEE 802.15.4 Sub 1GHz
WIRELESS APPROVALS	FCC Part 15, CE R&TTE, Others ⁴
RADIO MODULE	Supports RM900

SENSOR SPECIFICATIONS	RANGE	RESOLUTION
AMMONIA (NH ₃)	0 to 100 ppm	1 ppm
CARBON MONOXIDE (CO)	0 to 500 ppm	1 ppm
CARBON MONOXIDE (CO), EXT. RANGE	0 to 2,000 ppm	10 ppm
CARBON MONOXIDE (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	1 ppm
ETHYLENE OXIDE (ETO-B)	0 to 10 ppm	0.1 ppm
ETHYLENE OXIDE (ETO-C), EXT. RANGE	0 to 500 ppm	10 ppm
FORMALDEHYDE (HCHO)	0 to 10 ppm	0.05 ppm
HYDROGEN (H ₂)	0 to 1,000 ppm	10 ppm
HYDROGEN CYANIDE (HCN)	0 to 50 ppm	0.5 ppm
HYDROGEN SULFIDE (H ₂ S)	0 to 100 ppm	0.1 ppm
HYDROGEN SULFIDE (H ₂ S), EXT. RANGE	0 to 1,000 ppm	1 ppm
METHYL MERCAPTAN (CH ₃ -SH)	0 to 10 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
OXYGEN (O ₂)	0 to 30% Vol.	0.1% Vol.
PHOSPHINE (PH ₃)	0 to 20 ppm	0.1 ppm
SULFUR DIOXIDE (SO ₂)	0 to 20 ppm	0.1 ppm

1. Wireless units have a functioning RF modem and are ready for wireless deployments; non-wireless units cannot be upgraded to wireless. Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.
2. Contact Honeywell RAE Systems for availability.
3. Honeywell RAE Systems recommends calibrating sensors on installation.
4. Contact Honeywell RAE Systems for country-specific wireless approvals and certificates. Specifications are subject to change.

Ordering Information (Model: PGM-1860)

- Wireless or non-wireless versions are available¹
- Refer to the Portables Pricing Guide for part numbers for monitors, accessories, maintenance kits, gas, sensors, and replacement parts



ToxiRAE Pro PID

Personal Wireless Monitor For Volatile Organic Compounds

The ToxiRAE Pro PID is the world's smallest volatile organic compound (VOC) monitor. Featuring Honeywell RAE Systems PID sensor, the ToxiRAE Pro PID can quickly detect and accurately monitor over 300 VOCs. The ToxiRAE Pro PID provides safety professionals wireless remote access to real-time instrument readings and alarm status for better visibility and faster incident response¹. With an onboard library of 190 correction factors, the ToxiRAE Pro PID can be programmed to automatically read in equivalent units of the specified compound.

- Wireless elevates safety to the next level
- Available in Industrial Hygiene (advanced) or Safety (basic) configurations
- Man Down Alarm with real-time remote wireless notification
- Easy to maintain with replaceable sensor, fan, filter, and battery
- Fully automatic bump testing and calibration with AutoRAE 2²

Applications

- Industrial hygiene and safety
 - Chemical plants
 - Government health, safety, security, and environmental agencies
 - Hazardous materials teams, first responders
 - Oil and gas
 - Pharmaceutical plants
- Environmental applications
 - Environmental consulting
 - Soil remediation

Optional Accessories

- AutoRAE 2 Automatic Test and Calibration System
- Multi-unit charging station for up to five monitors



ToxiRAE Pro PID Comes With:

- ToxiRAE Pro PID monitor with sensor as specified, alligator clip, protective rubber boot, and rechargeable battery installed
- Charging and PC communication cradle
- PC communication cable
- AC adapter (100 to 240 V, 50/60 Hz AC to 12 V DC)
- Calibration adapters
- Quick Start Guide
- CD with documentation
- Combined instrument/sensor cap removal tool
- Calibration card, quality certificate, and warranty/registration card

FEATURES & BENEFITS

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|---|--|--------------------------------|--|--|
| • Wireless access to real-time instrument readings and alarm status from any location | • Unmistakable five-way local and remote wireless notification of alarm conditions | • Largest display in its class | • On-board correction factor library for 190 compounds | • Reliable, rugged, and intrinsically safe |
| | • Continuous datalogging ³ | | • Easy to use | • Device Management with Honeywell SafetySuite |





ToxiRAE Pro PID Personal Wireless Monitor for volatile Organic Compounds

SPECIFICATIONS ⁴	
SIZE	4.6" H x 2.4" W x 1.2" D (118 x 60 x 30 mm)
WEIGHT	8.29 oz. (235 g)
SENSORS	Photoionization sensor with 10.6 eV (standard) or 9.8 eV ^{2,3} (optional) lamp. Response time (T ₉₀) < 15 sec. (Isobutene). Field-replaceable sensor. Easy access to lamp for cleaning
DETECTABLE GASES	A wide variety of ionizable chemicals using 190 built-in and over 300 published correction factors
BATTERY	Rechargeable Li-ion battery - Operating time: > 12 hours (normal operation, non-wireless) - Recharge time: < 4 hours through charging cradle
DISPLAY	Graphical LCD display with white LED backlighting (activated when monitor is in alarm or with a button press)
DISPLAY READOUT	- Real-time reading of VOC concentrations in parts per million or mg/m ³ ; battery status; data logging on/off; wireless on/off and reception quality - STEL, TWA, and peak values
KEYPAD	2 buttons for operation and programming
SAMPLING	Internal fan
CALIBRATION	Automatic with AutoRAE 2 Test and Calibration System ² or manual
ALARM MODES	- Wireless remote alarm notification ¹ ; audible (95 dB @ 30 cm), vibration, visible alarm (flashing bright red LEDs), and on-screen indication of alarm conditions - Man Down Alarm with pre-alarm and real-time remote wireless notification
DATALOGGING	Continuous datalogging ³ with a three-month capacity (at one-minute intervals) - User-configurable datalogging interval (from 1 to 3,600 seconds)
COMMUNICATION AND DATA DOWNLOAD	- Data download and instrument set-up on PC via charging and PC comm. cradle - Data download via AutoRAE 2 Automatic Test and Calibration System - Wireless data and status transmission ¹ via built-in RF modem (optional)
WIRELESS NETWORK	ProRAE Guardian Real-Time Wireless Safety System or Closed-Loop Network with the EchoView Host
WIRELESS FREQUENCY	ISM license-free bands
WIRELESS RANGE (TYPICAL)	ToxiRAE Pro PID to Mesh Router, EchoView Host, or Mesh Reader ² ~ 330 feet (100 meters) ToxiRAE Pro PID to RAELink3 Mesh or RAELink3 Z1 Mesh modems ~ 33 feet (10 meters)
OPERATING TEMPERATURE	-4° to 131°F (-20° to 55°C)
HUMIDITY	0% to 95% relative humidity (non-condensing)
HAZARDOUS LOCATION APPROVALS	CSA: Class I, Division 1, Groups A, B, C and D. T-code T4 Class I, Zone 0 A/Exia IIC T4 ATEX: II 1G, Ex ia IIC Ga T4 IECEX: Ex ia IIC Ga T4 China Ex: Ex ia IIC T4
CE COMPLIANCE (EUROPEAN CONFORMITY)	EMC directive: 2004/108/EC. R&TTE directive: 1999/5/EC. ATEX directive: 94/9/EC
WARRANTY	- Two years on non-consumable components - One year on all other sensors, battery, and other consumable parts

ORDERING INFORMATION (MODEL: PGM-1800)

- Industrial Hygiene (advanced) and Safety (basic) configurations are available

Industrial Hygiene configurations:

- Advanced PID sensor (0.1 to 2,000 ppm; 50 ppb resolution)
- Datalogging
- 9.8 eV or 10.6 eV lamp options

Safety configurations:

- 10.6 eV; 1 to 1,000 ppm; 0.1 ppm resolution PID
- No datalogging
- 10.6 eV lamp only

- Wireless or non-wireless versions are available¹

- Refer to the Portables Pricing Guide for part numbers for monitors, accessories, maintenance kits, gas, sensors, and replacement parts

1 Wireless units have a functioning RF modem and are ready for wireless deployments; non-wireless units cannot be upgraded to wireless. Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.

2 Contact RAE Systems for availability.

3 Available with Industrial Hygiene configurations only

4 Specifications are subject to change