ToxiRAE Pro

Toxic Gases and Oxygen Monitor

The ToxiRAE Pro is the world's first wireless personal monitor for toxic gases and oxygen. The ToxiRAE Pro takes worker protection to the next level by providing safety professionals wireless access to real-time instrument readings and alarm status from any location for better visibility and faster response.

The ToxiRAE Pro can detect a broad range of gases—from carbon monoxide, hydrogen sulphide, and oxygen to ammonia, chlorine, and phosgene.

The ToxiRAE Pro's intelligent interchangeable sensors store calibration data, so if you need to monitor one gas one day and another gas the next, swapping the sensors in your ToxiRAE Pro is all it takes.

"The world's first personal wireless monitor protects workers from toxic gases without getting in the way."

Gases analysed

- CO
- Cl_2
- ClO_2
- H_2O
- H_2S
- O_2
- NH_3
- ETO
- H_2
- HF
- NO
- $COCl_2$
- HCl
- HF
- HCN
- CH_3SH
- NO_2
- PH_3
- SO_2
- HCHO

KEY 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
- Largest display in its class
- Reliable, rugged, and intrinsically safe
- Continuous datalogging
- Easy to use

Technical Specification

Instrument Specification

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 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 & 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 transmission1 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 ~ 660 feet (200 meters) ToxiRAE Pro to RAELink Mesh or RAELink 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: , 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 non-consumable components and CO, H_2S, and O_2 sensors - 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
RADIO MODULE	Supports RM900

Sensor Specification	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	10ppm
HYDROGEN CYANIDE (HCN)	0 to 50 ppm	0.5 ppm
HYDROGEN SULFIDE (H_2S)	0 to 100 ppm	0.1 ppm
HYDROGEN SULFIDE (H_2S), 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
SULPHUR DIOXIDE (SO_2)	0 to 20 ppm	0.1 ppm

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
- ProRAE Studio II software for PC-based instrument configuration and data management
- Calibration card, quality certificate, packing list, and warranty/registration card

Optional Accessories

- AutoRAE 2 Automated Test and Calibration Station
- Multi-unit charging station for up to five monitors

Ordering Information (Model: PGM -1860)

- Wireless, wireless-capable, or non-wireless versions are available
- Bulk packages of 10 units are available for select configurations
- Refer to the Portables Pricing Guide for part numbers

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Cert No 996
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