

TOXIRAE PLUS

Toxic Gas Monitors

Light-weight, personal and compact toxic gas monitors operating on alkaline batteries provide over 1,000 hours of continuous operation.

Highlights

- Small, weather-proof, light-weight (4.2 oz with battery) and rugged pocket-size monitor
- Sturdy pocket or belt clip for hands free monitoring
- Large digital display (backlight)
- Loud audio alarm
- Visual alarm with flashing LED
- Vibration alarm jack (optional)
- Varying audio alarm signals for different alarm conditions
- Plug-in interchangeable toxic gas sensors
- Factory preset and user programmable alarms
- Protects from interference by portable radios (RFI)

- Long operation time with Alkaline batteries of over 1,000 hours
- STEL, TWA, and Peak data for specific toxic gases
- Simple calibration

- Refineries and petrochemical plants including offshore drilling and plant shut-downs
- Waste water treatment plants
- Steel mills
- Pulp and paper industry

Applications

- Confined Space Entry
 - Shipyard and maritime confined spaces
 - Land-fill operations
 - Trenches, silos, railcars
 - Sewers and manholes
- Power plants



RAE Systems Inc.

1339 Moffett Park Drive • Sunnyvale, California 94089 USA
Tel: 408.752.0723 • Fax: 408.752.0724
Email: RaeSales@raesystems.com • www.raesystems.com



Specifications

Sensor Specifications

Sensor	Range (ppm)	Resolution (ppm)	Response Time (t90)
Carbon Monoxide (CO)	0 - 500	1	20 secs
Hydrogen Sulfide (H ₂ S)	0 - 100	1	30 secs
Sulfur Dioxide (SO ₂)	0 - 20	0.1	15 secs
Nitric Oxide (NO)	0 - 250	1	20 secs
Nitrogen Dioxide (NO ₂)	0 - 20	0.1	25 secs
Chlorine (Cl ₂)	0 - 10	0.1	60 secs
Chlorine Dioxide (ClO ₂)	0 - 1	0.01	120 secs
Hydrogen Cyanide (HCN)	0 - 100	1	60 secs
Ammonia (NH ₃)	0 - 50	1	150 secs
Phosphine (PH ₃)	0 - 5	0.01	60 secs

Alarm and Span Gas Calibration Standards

Gas	Factory Preset Alarm Settings					Calibration Gas Concentration(ppm)
	STEL (ppm)	TWA (ppm)	Low Alarm (ppm)	High Alarm (ppm)		
CO	100	35	35	200		50
H ₂ S	15	10	10	20		25
SO ₂	5	2	2	10		5
NO	25	25	25	50		25
NO ₂	1	1	1	10		5
Cl ₂	1	0.5	0.5	5		10
ClO ₂	0.3	0.1	0.2	0.5		0.5
HCN	4.7	4.7	4.7	50		10
NH ₃	35	25	25	50		50
PH ₃	1	0.3	1	2		5

Major Hazardous Gases by Industry

Industry	CO	H ₂ S	SO ₂	NO	NO ₂	Cl ₂	ClO ₂	HCN	NH ₃	PH ₃
Chemical	*	*	*	*	*	*		*	*	*
Construction	*	*			*	*				
Manufacturing	*	*	*	*	*	*		*	*	*
Mining	*	*								
Oil & Gas	*	*	*							
Pulp & Paper		*	*			*	*			
Power Plants	*	*	*							
Water & Wastewater	*	*				*	*			

(* = major hazard)

Instrument Specifications

Size	6.0"L x 1.75"W x 1.0"H (15.2 cm x 4.4 cm x 2.5 cm)
Weight	4.2 oz with battery (120g)
Detector	Electrochemical sensor
Battery	2-AAA alkaline batteries
Operating Hours	1000 hours continuous
Display	7-digit LCD with LED back light
Keypad	1 operation key and 2 programming keys
Attachments	Pocket/belt clip
Comfort Beep	At 6 minute intervals
Temperature	Approximately 5° to 104°F (-15° to 40°C) except for NH ₃ , Cl ₂ , ClO ₂
Humidity	0% to 95% relative humidity (non-condensing)
Direct Readout	Instantaneous values: as parts per million in air High and low values STEL, TWA, and Peak values of toxic gases Battery voltage Elapsed time
Alarms	90dB buzzer and flashing red LED to indicate exceeded alarm limits: <ul style="list-style-type: none"> • High: 3-beeps and flashes per second • Low: 2-beeps and flashes per second • STEL and TWA: 1-beep and flash per second • Alarms latching with manual override • Diagnostic alarm and display message for low battery, sensor or calibration error
Intrinsic Safety	UL®, cUL® Class 1, Division 1, Groups A, B, C, & D (USA & Canada) Ex ia IIC T4

ToxiRAE PLUS Ordering Information

ToxiRAE PLUS Toxic Gas Monitor: PGM-35

- ToxiRAE PLUS with choice of sensor
- 2 AAA batteries
- Calibration adapter with tubing
- Operation and maintenance manual

ToxiRAE PLUS Unit with interchangeable CO, H₂S, SO₂, NO, NO₂, and Cl₂; or non-interchangeable ClO₂, HCN, NH₃, or PH₃ sensors

Accessories

- Calibration kits with gas cylinder, flow regulator, and tubing
- Manual hand-pump with 15' (5m) Tygon tubing for remote sampling
- Leather case
- Contact RAE for availability of additional sensors
- Vibration alarm (Pen size)
- Earphone alarm with adapter



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TOXIRAETOXIC GASES