



BadgeRAE

Zero maintenance, two-year, clip-on gas detector for H₂S or CO

The **BadgeRAE** personal gas detector provides up to 2 years* of continuous, economical, and maintenance-free protection from exposure to Hydrogen Sulfide (H₂S) or Carbon Monoxide (CO).

The zero-maintenance **BadgeRAE** does not require calibration, but prudent safety procedure dictates periodic challenges with CO or H₂S gas. Only the **BadgeRAE** provides a bump alert warning with a "Test" message on the display to remind users to "bump" the detector with gas to verify the performance of the sensor and electronics. This procedure is quick and easy and resets the "Test" message.

Key Features

- Up to 2 years* of continuous protection
- Once activated **BadgeRAE** is always on and monitoring

No Maintenance

- No battery replacement
- No sensor replacement
- No calibration

Large, easy-to-read LCD display

One-button integrity self test

- Alarm function
- Operational life remaining
- Alarm limits
- Peak reading over 24 hours
- Alarm-minutes used

Rugged housing

- Durable, highly impact resistant, carbon loaded ABS housing
- Highly resistant to RFI interference
- IP-55 rated weather resistant

Hands-free use

- Small enough to be clipped onto a hardhat, shirt pocket, shoulder-strap, belt shoulder-strap or belt

Alarms

- Low and high alarms
- 3-D bright LED alarm light
- Loud buzzer

Applications

- Refineries
- Oil production
- Contractors
- Turnarounds
- Scheduled plant maintenance
- Chemical plants
- Fire service
- Industrial safety
- Pulp mills
- Heavy industry



Actual Size

* 2 years or 730 minutes of alarm



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Specifications *

Sensor Specifications

Gas	Nominal Range	Resolution	Factory Alarm Settings**		Alarm Response
			Low	High	
Hydrogen Sulfide	0-100 ppm	1 ppm	10 ppm	15 ppm	<60 seconds
Carbon Monoxide	0-300 ppm	1 ppm	35 ppm	200 ppm	<60 seconds

**Custom alarm set points available

Detector Specifications

Size	3.6" (9.3 cm) x 1.9" (4.9 cm) x 0.9" (2.2 cm) Maximum height at sensor vent: 1.36"(3.2 cm)
Weight	2.9 oz (83 gm) with battery and sensor
Battery	Non-replaceable battery with 2-year or 730 alarm-minutes of life
Operating Period	2 years typical life
Display	Easy-to-read LCD for numeric readings and messages
Alarms	<ul style="list-style-type: none"> • Display: Alarm status indicator and numeric readings • Audible: 90 dB at 10 cm • Visual: Bright Red/Green LED visible from top, front, and sides • Levels: Independent low and high alarms
EMI/RFI	Highly resistant to EMI / RFI. Compliant with EMC Directive 89/336/EEC
IP-rating	IP-55 rating: protected and low pressure jets of water from all directions
Hazardous Area Approval	UL/cUL Classified as Intrinsically Safe for use in Class 1, Division 1, Groups A, B, C, D, Hazardous Locations T6 rating, ATEX, II 1G, EEx ia IIB T6, II 2G, EEx ia IIC T6, CE Mark, European Conformity (Conformite Europeene)
Operating Temp Range	<ul style="list-style-type: none"> • Continuous: -4 to 114°F (-20 to 45°C) • Intermittent: -40 to 120°F (- 40 to 50°C)
Humidity	0 - 95% relative humidity (non-condensing)
Warranty	Up to 2 years or 730 alarm-minutes for instrument, battery and sensor.

* Ongoing projects to enhance our products means that these specifications are subject to change

Model PGM-1010, or 1020 includes

- BadgeRAE detector with H₂S (PGM-1020) or CO (PGM-1010) sensor as specified
- Belt clip
- Wrist strap
- Gas test adapter

Model PGM-1010, or 1020 Kit includes

Items included with Monitor, plus

- Test gas
- Gas Regulator with flow controller
- Hard hat mounting adapter

Accessories

- H₂S Quick-Check gas cylinder, 11 L cylinder with integral trigger for gas release and balloon (600-0159-000)
- Protective rubber boot (045-3042-000)



BadgeRAE Test Station (045-0520-000)

- Automated bump test station
- Verifies sensor accuracy and reponse time, and updates the BadgeRAE's display
- Internal controller manages gas flow (saves calibration gas)



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