Honeywell ModRAE™

Modular gas detection for evolving industrial environments

A configurable platform designed to support gas detection across a wide range of applications from broad hazard screening to compound-specific analysis

Honeywell Technologies

An adaptable approach to gas detection

Modular approach
Each cartridge integrates sensing components into a single module. Cartridges can be removed, stored, transported or serviced independently, supporting flexible workflows across field operations, maintenance and logistics.

- Configure detection based on application needs.
- Adapt to changing regulatory or operational conditions.
- Reduce reliance on multiple instruments.

Rethinking gas detection for modern operations
Industrial environments are becoming more complex – and so are gas detection requirements. Many organizations rely on multiple devices to identify unknown hazards, measure compounds and support compliance workflows. This can increase complexity across operations, maintenance and training.

Detection needs vary – from identifying unknown hazards to measuring compounds at trace levels. Traditional, single-purpose devices often require multiple tools, workflows and systems to address these challenges.

Honeywell's ModRAE™ is a modular gas detection platform designed to help reduce this complexity. It enables configurable sensing, adaptable workflows and a more unified approach to detection. By combining sensing, connectivity and workflows into a single system, ModRAE helps organizations operate with more flexibility and adaptability.

From soil remediation and fumigation to industrial operations and emergency response scenarios, ModRAE supports a range of monitoring needs – helping improve visibility into environmental conditions while supporting operational continuity

True modularity for dynamic applications
ModRAE is built on a modular architecture designed to support changing operational requirements without relying on multiple devices.

Interchangeable smart cartridges enable rapid changes in the field through a quick-release mechanism, allowing users to adjust sensing configurations at the point of use with minimal disruption.

Whether transitioning from broad VOC screening to targeted chemical measurement, the system adapts through cartridge selection, rather than full device replacement.

Advanced PID detection for expanded analysis
Honeywell's ModRAE supports photoionization detection (PID) technology.

From general screening of unknown environments to more targeted analysis, the platform supports flexible detection approaches – helping meet both compliance and risk assessment needs.

- Monitors volatile organic compounds (VOCs).
- Enables both broad screening and targeted analysis, including compound-specific workflows such as benzene measurement.

Design, interface, and customization

Enhanced serviceability through integrated design
ModRAE is designed to simplify maintenance and servicing through its modular, cartridge-based architecture.

Cartridges can be removed and managed independently, enabling calibration, servicing and storage without requiring full device disassembly – helping reduce downtime.

Each cartridge incorporates an integrated SensorRAE, helping maintain sensor readiness even when removed from devices. This reduces the need for separate external sensor management systems and allows cartridges to remain operational during transport, storage or servicing.

Internal components are also designed for easier access, supporting tasks like sensor replacement and component inspection with less disruption.

These capabilities help support:
- Simplified maintenance workflows
- Reduced handling complexity
- Improved operational readiness

Intuitive, visual user interface
ModRAE is designed with a streamlined interface that prioritizes clarity and ease of use in the field.

The device incorporates:
- Color-coded indicators for status awareness
- Real-time data visualization to support decisions
- Guided workflows for application-specific tasks

Guided workflows help standardize processes such as compound-specific measurement, reducing variability across users.

The interface supports:
- Faster interpretation of environmental conditions
- Reduced reliance on complex navigation
- More consistent operation across skill levels

Flexible customization to match your operations
ModRAE supports a high level of customization, enabling organizations to configure the platform based on operational needs.

- **Cartridge customization**
  Select cartridges for VOC screening, targeted industrial chemicals, or specialized applications – allowing one device to support multiple workflows.
- **Connectivity customization**
  Choose from multiple connectivity options that align with your infrastructure and deployment environment, including local and remote monitoring.
- **User and workflow configuration**
  Configure device behavior and access to support standardized workflows, role-based usage and data management needs.

This flexibility helps organizations:
- Align detection capabilities with application requirements
- Adapt across different environments
- Support consistent, controlled use

A platform designed to adapt over time

As industrial environments evolve, gas detection requirements may change. New regulations, emerging hazards and shifting operational demands require more flexible approaches.

ModRAE supports this evolution through a modular, configurable platform – helping organizations adapt detection strategies without overhauling their entire system.

By combining modular sensing, advanced detection capabilities, flexible connectivity and serviceable design, ModRAE enables a more adaptable approach to gas detection.

Applications
ModRAE supports diverse use cases across industrial, environmental and specialized sectors.

Industrial hygiene
Monitor worker exposure to VOCs and other contaminants

Soil remediation
Assess contamination and track cleanup progress

Fumigation
Monitor hazardous gases and support re-entry decisions

Hazmat and emergency response
Assess unknown or high-risk environments

Leak detection
Identify and evaluate gas releases

Perimeter and area monitoring
Improve visibility across larger sites

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