

# HONEYWELL

## RAEGuard Lite

### Fixed Flammable/Toxic Gas Detector

The RAEGuard Lite by Honeywell is a cost-effective, fixed gas detector designed for flammable, oxygen, and toxic gases. It provides stable and rapid gas detection in both indoor and outdoor environments, enabling real-time monitoring of hazardous gas levels to ensure the safety of the installation site and personnel.

With its intelligent and modular design, the RAEGuard Lite minimizes installation and maintenance costs. It features an industry-standard 3-wire, 4–20mA analog output and Modbus RTU digital signal output for easy integration.

RAEGuard Lite employs advanced anti-poisoning technology to ensure reliable and accurate performance even in challenging environments. The oxygen detectors support zero-calibration (Nitrogen) free, simplifying maintenance and reducing costs. Additionally, RAEGuard Lite features an integrated explosion-proof structure for enhanced safety, making it suitable for a wide range of applications.



### Applications



Oil & Petrochemicals



Metallurgy & Chemical



Environment protection



Public Utilities



Municipal & Scientific Research



Education



Defense

### Features

#### Safe and reliable

- Complies with ATEX/IECEx standards
- Features anti-poisoning flammable gas detector and advanced toxic/oxygen sensor technology
- Offers wider compensation for temperature and environmental factors, ensuring reliability and stability
- Optional built-in surge protection device for safe outdoor installation
- Rated IP66

#### Diversified output

- Standard 3-wire 4–20mA loop output
- RS485 Modbus RTU digital signals for multi-drop networking and remote real-time monitoring
- Optional standard HART communication for remote diagnostics and configuration\*

#### Easy to install and use

- Integrated design reduces installation costs
- Simple and fast installation with 2 U-type bolts
- Pluggable terminal blocks and PCB module for

easy wiring

- Large Dot-matrix LCD display with easy-to-read digits, bar graph and icons
- 3 LED indicators for clear status indications
- Various accessories to choose

#### Cost-saving for operation and maintenance

- Auto-identify gas types
- Full scale range adjustable
- Contactless operation with magnetic wand
- Intelligent early warning and fault diagnosis prompt
- Reminder for sensor life cycle/calibration cycle

## Technical Specifications

| RAEGuard Lite Gas Detector   |  |
|------------------------------|--|
| Description                  | Universal transmitter with standard configuration of 3-wire, 4-20mA and RS485 MODBUS output for use with a wide range of applications for the detection of flammable, toxic and Oxygen gas hazards.  |
| Electrical                   |  |
| Input Voltage Range          | 16-32VDC (24VDC nominal)   |
| Typical Power Consumption    | Electrochemical Cells: <1watts; catalytic:2 watts (Max:5w)   |
| Current Output               | Completely configurable 4-20mA (source type) with optional HART® 7.2 protocol as following as default configurations of current output.<br>1mA    Fault                      2mA    Inhibit (during configuration or setup)<br>3mA    Warning                   4mA~20mA    Normal<br>22mA    overrange<br><i>Note: When the current output is &lt;3mA, HART communication will not work properly.</i> |
| Terminals                    | 5 terminals (11 terminals for use with relay output), wire diameter 0.5mm2 (20AWG) to 2.5mm2 (13AWG)   |
| Relays                       | 3 Relays (30VDC 5A, optional)  |
| Communication                | RS485, Modbus RTU, Optional Hart *   |
| Construction                 |  |
| Transmitter Housing Material | Aluminum Alloy   |
| Sensor Housing Material      | 316 Stainless Steel  |
| Weight (approx.)             | Aluminum Alloy: 2.3kg  |
| Mounting                     | Integral mounting plate with 4 x mounting holes suitable for M8 to fit onto Wall or Pipe   |
| Entries                      | 2 x 3/4" NPT cable/conduit entries and 1 x M25 sensor entry. 1 x plug supplied f for only 1 entry used. Seal to maintain IP rating   |
| Performance***               |  |
| Repeatability                | <2%  |
| Response Time (T90 sec)      | Depending on sensor  |
| Certification                |  |
| ATEX                         | LEL: Ex db IIC T6 Gb Ex tb IIIC T80°C Db Ta= -40°C ~ +65°C<br>Ex db IIC T5 Gb Ex tb IIIC T90°C Db Ta= -40°C ~ +75°C<br>EC: Ex db IIC T6 Gb Ex tb IIIC T80°C Db Ta= -20°C ~ +55°C   |
| IECEX                        | LEL: -40°C~+65°C (Ex db IIC T6 Gb Ex tb IIIC T80°C Db IP66)<br>-40°C~+75°C (Ex db IIC T5 Gb Ex tb IIIC T90°C Db IP66)<br>EC: -20°C~+55°C (Ex db IIC T6 Gb Ex tb IIIC T80°C Db IP66)  |
| EMC                          | EN50270:2015, IEC 61000-4-5  |
| Surge Immunity               | Optional Surge Protection Device, Compliance with GB/T17626.5-2008/IEC61000-4-5:2005, Meets "Installation Class 4"   |
| Environmental                |  |
| IP Rating                    | IP66   |
| Operating Temperature**      | -40°C to +70°C   |
| Operating Humidity           | LEL: 0~95%RH (Non-condensing)<br>Toxic & Oxygen: 15%~95%RH (Non-condensing)  |
| Operating Pressure           | 90~110kPa  |
| Storage Conditions           | -20°C to +50°C, 45-75%RH(Non-condensing), in clean air   |

Remarks:

\* RAEGuard Lite will provide users more gas types/ communication/international certificate, for availability, please contact Honeywell Automation.

\*\* Catalytic sensor can work continuously at -40°C ~ +70°C; toxic and Oxygen sensor can work continuously at -20°C ~ +55°C, intermittently at -40°C ~ +70°C (The accuracy and response time of sensors operating in this temperature range will be affected, and long-term operation may lead to sensor sensitivity decline or even damage.)

\*\*\* The performance characteristics of the products mentioned above are typical results tested in an environment with a temperature 20°C and a humidity of 50% RH. When calibrating, use the calibration cap and recommended flow for detection. If the sunshade/deluge is used instead or the detection is carried out at low temperature, the response time will be slowed down.

\*\*\*\* Availability may be restricted in certain countries.

### For more information

<https://automation.honeywell.com/>

### Technical Services

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## Detectable Gas

| Description                       | FGM-7300    | GTQ-FGM-7100 |
|-----------------------------------|-------------|--------------|
| Methane (CH <sub>4</sub> )        | -           | ●            |
| Flammable Gas (LEL)               | -           | ●            |
| Hydrogen Sulfide H <sub>2</sub> S | ●           | -            |
| Carbon Monoxide CO                | ●           | -            |
| Oxygen O <sub>2</sub>             | ●           | -            |
| Ammonia NH <sub>3</sub>           | ●           | -            |
| Hydrogen H <sub>2</sub>           | ●           | -            |
| Other                             | Coming soon |              |

For more gas types and ranges, please consult your local Honeywell representative for details.

### Standard Accessories

- Gas Detector
- Quick Start Guide
- Calibration Cap
- L-type Tool
- 2 U-bolts
- Waterproof Cap

### Optional Accessories

- Collecting Cone
- Sunshade
- Stopping Plug
- Gas Flow Adaptor
- Relay Module
- SPD Module
- Magnetic Wand
- Sound and Visual Alarm\*\*\*\*

For more accessory options, please consult your local Honeywell representative or refer to the price book.

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FUTURE  
IS  
WHAT  
WE  
MAKE IT**

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