

# DEDICATED TO YOUR SAFETY

Safe And Efficient Flammable, Toxic And Oxygen Detector

---

Honeywell RAEGuard 3

---



**Honeywell**



**Dedicated to Your Safety**



## RAEGuard 3

RAEGuard 3 Series is Honeywell's masterpiece detector of toxic and flammable gas that represents advanced technology and development potential in the future. It provides users with safer, more stable, more reliable and more effective field transmitter, and can be applied in indoor and outdoor hazardous environments, to monitor the dangerous degree of hazardous gases in real time, so as to rapidly and effectively protect the safety of the installation site and production personnel.

The core of RAEGuard 3 – the sensors passed through strict selection and can ensure reliable and stable operation of the transmitter. Combustible gas detector uses catalytic sensor technology with long life (> 5 years) and high anti-poisoning. Toxic and Oxygen detectors adopt a variety of compensatory electrochemical sensor technology, especially Oxygen detector can avoid zero-free (nitrogen) calibration. At the same time, NDIR infrared detection technology with long life, anti-poisoning and Oxygen-free NDIR infrared detection technology allows RAEGuard 3 to be used in a wider and more harsh gas detection environment.



## To Your Safety

- All adopt advanced sensor technology
- Wider compensation for temperature and environmental factors keeps the instrument reliable and stable.
- Redundant design to ensure no “false alarm”
- Clear indications of status can perceive the degree of environmental hazards even at long distances.
- Optional integrated visible and sound alarm, light and sound constantly remind, alarm signal will not be ignored
- Optional built-in surge protection device to make sure outdoor installation of “worryfree”
- IP66/67
- TUV SIL2

## Self-Management

- Life expiration reminder
- Calibration period expiration reminder
- Alarm, STEL/TWA, fault, warning and other event reminders
- Fault code reminder

## Universal Transmitter

- Simplified and reduced cost of installation
- Decreased material management
- Reduced user's spares and training
- Minimal maintenance required

## Easy to Use

- Easy read backlit LCD with text, bar graph, digits and icons, support EN and CN
- 3 high-recognized and visible LED status indicators
- 3-wire 4-20mA current output can be fine-tuned to avoid the signal attenuation caused by wiring
- Optional HART® communications as standard for remote diagnostics/configuration
- Optional Bluetooth® for easy remote operation and maintenance via mobile app
- RS485 Modbus RTU for multi-drop networking and remote real-time monitoring
- Local or remote sensor installation options



## Cost Effective

- Auto-identify sensor gas types, allow full scale range setting of toxic and Oxygen detectors
- Hot swap toxic and Oxygen sensor module on site
- Fully configurable via non-intrusive magnetic switches by single person
- Auto-inhibit during maintenance

## Easy to Install

- Integral mounting plate or optional rewarded backboard mount kit for easy wall or pipe mounted
- 3/4" NPT M, 1/2" NPTM/F, G3/4" M/F, G1/2" F and M20 F varied glands selectable
- Flip-up PCB block removes to give access to terminal area
- Removable plug/socket type terminal blocks for ease of wiring



## Certification

- EU: CE, EMC, ATEX
- IECEx
- TUV SIL2
- INMETRO

## Applications

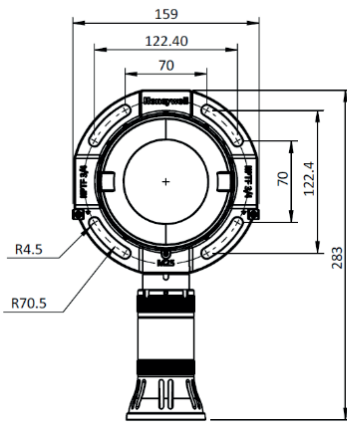
- Oil & Gas
- Chemical industry
- Oil & Gas Storage and Transportation
- Food/beverage
- Refineries
- Power plants
- Steel plants
- Laboratory
- Waste water facilities
- Utilities
- Pharmaceutical plant
- Chemical Storage
- Automotive industry

## Installation

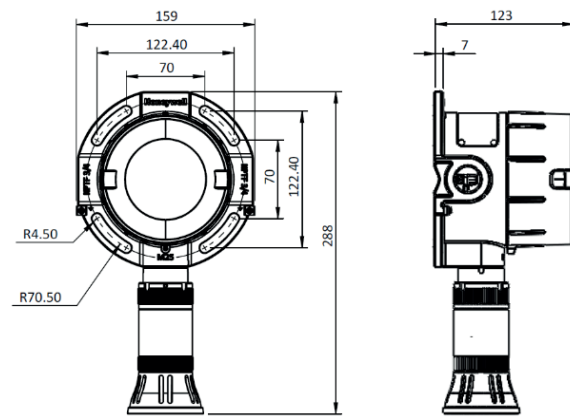
### Installation Dimension

RAEGuard 3 Series detector is designed for use in potentially explosive atmosphere. The installation of detectors should ensure their explosion-proof performance and strictly follow the relevant national standards, to use industrial-grade armored cables and explosion-proof glands and conduits.

Use 0.5mm<sup>2</sup> (20AWG) to 2.5mm<sup>2</sup>(13AWG) cross sectional area cable as needed to ensure minimum operating voltage at the detector, depending on installed cable length.



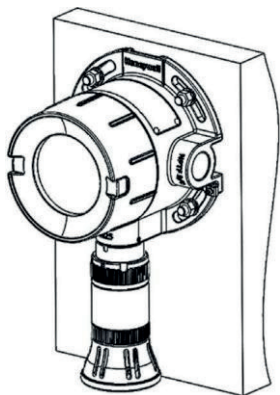
Dimension of RAEGuard 3 Toxic and Oxygen



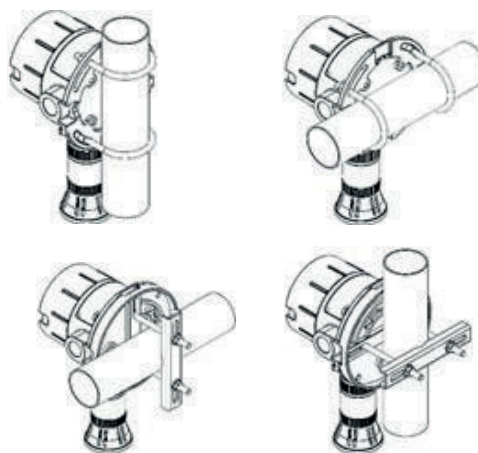
Dimension of RAEGuard 3 Flammable and NDIR

Unit: mm

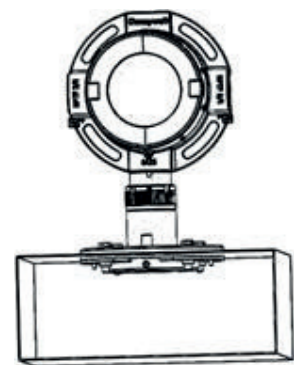
### Mounted Mode



Wall Mounted

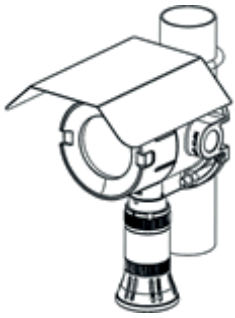


Vertical or horizontal pipe mounted  
(Mounting plate kit can be selected directly)



Duct Mounted

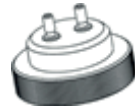
## Other Accessories



Sunshade/delug



Collecting Cone



Gas Flow Adapter

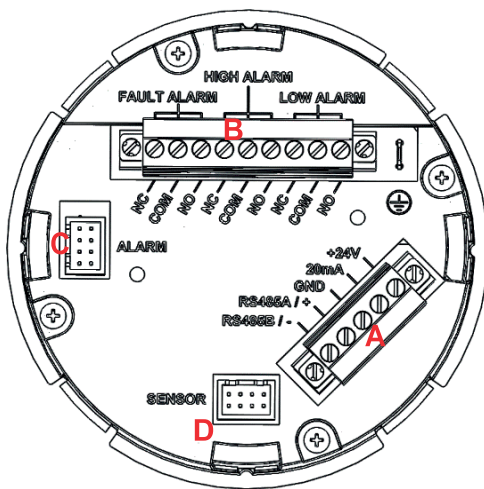


Mounting Plate Kit

## Electrical

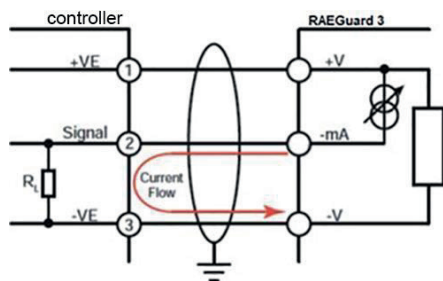
RAEGuard 3 transmitter only provides source current output. The maximum supported cable length can refer to the recommended values in the User's Manual.

### RAEGuard 3 Wiring Terminals



Terminals	Identification	Definition	Remarks
A	+24V	+VE Supply (16~32VDC)	Controller
	4-20mA	4-20mA current & HART output	
	GND	-VE Supply	
	RS485A/+	MODBUS A(+)	MODBUS RTU
	RS485B/-	MODBUS B(-)	
B	LOW ALARM-NO	Low Alarm - Normally Open	Note: If the function is not purchased at the time of ordering, there is no terminal.
	LOW ALARM-COM	Low Alarm - Common	
	LOW ALARM-NC	Low Alarm - Normally Closed	
	HIGH ALARM-NO	High Alarm - Normally Open	
	HIGH ALARM-COM	High Alarm - Common	
	HIGH ALARM-NC	High Alarm - Normally Closed	
	FAULT ALARM-NO	Fault - Normally Open	
	FAULT ALARM-COM	Fault - Common	
	FAULT ALARM-NC	Fault - Normally Closed	
C	ALARM	External + INMETRO	Optional
D	SENSOR	Connect with sensor	

### RAEGuard 3 Source Configuration





**Customer Business Center**  
**Service Hotline:** 400-815-3366 800-810-1336  
[www.honeywellanalytics.com](http://www.honeywellanalytics.com)



**Honeywell Analytics**  
Building#1, 555 Huanke Road  
Zhangjiang Hi-Tech Park Pudong  
New Area Shanghai, China  
Tel: 021-80386800  
Fax: 021-60246070

**RAE Systems (Beijing) Inc**  
A1 Building, C&W Industry Zone,  
No.14 Jiu Xianqiao Road,Chaoyang  
District, Beijing  
Tel: 010-56696000  
Fax: 010-57560599

**Honeywell Analytics**  
6F-2, No.8, Ziqiang S. Road, Chupei  
City 30264, Taiwan  
Tel: +886-2-29569986  
Fax: +886-3-6576499

**Technical Services**  
Greater China: [gaschina@honeywell.com](mailto:gaschina@honeywell.com)  
Taiwan: [analytics.tw@honeywell.com](mailto:analytics.tw@honeywell.com)  
Europe, Middle East and Africa:  
[ha.emea.service@honeywell.com](mailto:ha.emea.service@honeywell.com)  
America: [ha.us.service@honeywell.com](mailto:ha.us.service@honeywell.com)  
[www.honeywell.com](http://www.honeywell.com)

**Please note:** While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.

Brochure\_RAEGuard 3\_V2020\_EN  
© 2020 Honeywell Analytics

THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT

**Honeywell**