

02.

# **GAS DETECTION**

TANK I.D.#  
TWA-10307  
**1267**



<b>CALIBRATION, BUMP TEST &amp; FLEET MANAGEMENT SYSTEMS</b>	02-09
<b>COMMERCIAL &amp; DOMESTIC MONITORS</b>	02-23
<b>COMPRESSED BREATHING AIR MEASUREMENT</b>	02-12
<b>FIXED GAS DETECTION</b>	02-18
<b>FIXED PID MONITOR</b>	02-14
<b>GAS CYLINDERS</b>	02-10
<b>GASTEC SAMPLING PUMP KITS</b>	02-12
<b>HIGH PRESSURE QUAD GAS MIXTURES</b>	02-11
<b>INDUSTRIAL FLAME DETECTORS</b>	02-22
<b>INDUSTRIAL GAS DETECTION CONTROLLERS</b>	02-21
<b>INDUSTRIAL SENSORS &amp; TRANSMITTERS</b>	02-18

<b>LANDFILL/BIOGAS MONITORS</b>	02-17
<b>MULTI-GAS SURVEY MONITORS</b>	02-12
<b>PERSONAL MONITORS</b>	
Single Gas Personal Monitors	02-05
Multi-gas Personal Monitors	02-06
Accessories	02-08
<b>PORTABLE ANALYSER &amp; INDOOR AIR QUALITY MONITORS</b>	02-16
<b>PORTABLE PID MONITORS</b>	02-13
<b>REGULATORS &amp; TUBING</b>	02-11
<b>WIRELESS FOUR GAS PORTABLE DETECTION</b>	02-14
<b>AIRLESS SYSTEMS</b>	02-15

## APC TECHSAFE: NEW ZEALAND'S INSTRUMENTATION SPECIALISTS

APC Techsafe is the market leader in the supply, service, calibration, training and support of instrumentation and gas detection equipment in New Zealand, with over 30 years experience bringing the latest technologies to market.

APC Techsafe provides exclusive wireless gas detection technology solutions to monitor groups of workers in remote locations.

APC Techsafe is an authorised distributor and service centre for world leading instrumentation suppliers including Honeywell, RAE Systems, BW Technologies, Geotech, Alborg, Gastec, CAC Gas and more.



## OUR SERVICES

**Managing and maintaining your equipment to ensure compliance.**

APC Techsafe offers routine calibration, repairs and commissioning of both fixed and portable gas detectors. Work is carried out at either our Auckland or Christchurch workshops or in our service vehicles by our team of factory trained technicians. A certificate is issued with each calibrated unit and a full service history is logged in our comprehensive database.

## APPLICATIONS

Job sites come in all shapes and sizes, but even the smallest spaces require the highest standard of safety. With APC Techsafe, you can be sure you're getting exactly the kind of gas detection product you need to ensure the wellbeing of your workforce – no matter where their work day takes them.



Confined Space



Power Generation



Food/Beverage



Water Treatment



Landfill/Biogas



Cold Storage



Oil & Gas



Medical/Laboratory

**It is your responsibility to protect your workers from hidden gas hazards.**

Call 0800 832 732 or email [apc@apc.co.nz](mailto:apc@apc.co.nz)

**apc techsafe**  
BY NZ SAFETY BLACKWOODS

## Hire

APC Techsafe offers a vast range of gas detectors and height safety equipment for short term hire. Our gas detection range includes multi-gas monitors for personal protection, VOC monitors and landfill gas analysers. Our height safety hire offer includes harness kits, fall arresters, winches and tripods.



## GAS TESTING REQUIREMENTS IN CONFINED SPACE

### Definition of a confined space

A confined space is defined as an enclosed or partially enclosed space that is not intended as a place of work. It is liable to have an atmosphere that contains harmful contaminants or does not contain a safe oxygen level.

It may have contents that could cause engulfment, and may have restricted means for entry or exit.

Examples include:



Tanks



Presses



Process Vessels



Pits



Silos



Tunnels



Pipes



Storm Drains



Sewers



Shafts



Ducts



Ceiling Voids

## Australian Standard AS 2865:2009

Worksafe New Zealand have accepted Australian Standard AS 2865:2009 Confined Spaces as the standard for confined space entry work in NZ.

By complying with this Standard, the principles for eliminating or controlling hazards will be compatible with obligations under the Health and Safety at Work Act (HSWA).

## ATMOSPHERIC TESTING

AS 2865:2009 Confined Spaces emphasises that before a person enters a confined space, testing is carried out to ensure that:

- The confined space contains a safe level of oxygen;
- Atmospheric contaminants in the confined space are reduced to a safe level;
- The confined space is free from extremes of temperature;
- The concentration of flammable contaminant in the atmosphere is 0% of the Lower Explosive Limit (LEL) if hot work is to be carried out, or 10% if cold work is to be carried out.

### Workplace Exposure Standards (WES)

The Workplace Exposure Standards are intended to be used as guidelines for measuring atmospheric exposure levels of contaminants. Under HSWA and HSNO legislation, employers must ensure that they have systems in place to control hazardous exposures in confined spaces this includes atmosphere monitoring.



Available on [worksafe.govt.nz](http://worksafe.govt.nz)

## ATMOSPHERIC HAZARDS IN A CONFINED SPACE

### Oxygen deficient atmospheres

Can cause loss of consciousness and death. Oxygen deficiency can be caused by rust, fire, absorption by grain or soils, consumption by bacteria, and displacement by another gas.

### Flammable or explosive atmospheres

Contain flammable gases, vapours or dusts which could be ignited by a spark or open flame. The risk of explosion or spontaneous combustion is increased if an oxygen enriched atmosphere exists.

### Toxic atmospheres

Contain gases, vapours, dusts or fumes that have poisonous effects on the body. Cleaning, painting or welding may produce dangerous vapours or fumes. More people die from toxic gases than explosions caused by the ignition of flammable gas.

## SELECTING GAS DETECTION EQUIPMENT

Selecting what type of gas detection equipment that is required is a simple process.

1. Identify the hazards  
"What gases should I be testing for?"
2. What type of monitoring is required  
"Do I need personal monitoring?"  
- A portable device is recommended  
"Do I require plant or site monitoring?"  
- A fixed installed system is recommended



### Portable Gas Detectors

Unless there are specific toxic gases or hazards present, a four gas detector is the most common and efficient solution for use in confined spaces.

Oxygen (O<sub>2</sub>), Combustible Gases (LEL), Hydrogen Sulphide (H<sub>2</sub>S), Carbon Monoxide (CO) are the four gases monitored and are considered to be the minimum requirement.

## BUMP TESTING BEFORE USE IS BEST PRACTICE

A bump test prior to each day's use assures you that the sensors and alarms of your unit will function properly before entering a hazardous area.

A bump test is a brief exposure of the gas detector to a known concentration of gas or gas mixture for the purpose of verifying sensor and alarm operation and is not intended to be a measure of the accuracy of the instrument.

A daily bump test should be part of the standard operating procedures when using a gas detector.

Every person entering a confined space should be competent in bump testing their own personal detector and conduct a test before entry, especially if the gas detector is shared by employees.



A bump test kit is an ideal way to test personal gas detectors, in any location.

## CALIBRATION IS ESSENTIAL

It is recommended that portable gas detectors should be calibrated every 6 months.

A calibration is when the sensors in the gas detector are adjusted to accurately read the same values as a known concentration of gas or gas mixture.

Calibrating your instrument compensates for factors such as temperature, humidity, length of service and gas exposure (which will affect the output of your sensor) and guarantees accurate readings.



A calibration **MUST** be conducted if the gas detector **FAILS** a bump test. If the unit fails calibration it must be withdrawn from usage and have a maintenance service conducted.

## CARE & MAINTENANCE

Portable gas detectors should be serviced and calibrated every 6 months. Sensor screens should be clean and free of debris or obstructions.

- Clean the exterior of the gas detector with a soft damp cloth
  - Do not clean with solvents, citrus, alcohol or silicone based products, soaps, or polishers
  - Do not clean with compressed air or aerosol dusters
- Do not store or use near silicone based products
- Do not store in direct sunlight (i.e. under windscreen on vehicle dashboard)

Protective filters can be used additionally to keep sensors clean.

APC Techsafe can conduct a full service of your gas detector including cleaning or replacement of filters, testing of batteries, cleaning housing, as well as replacing other components. A complete gas detector report is issued at each service.



## OUR PRODUCTS

Our products are the definitive solution to your gas detection and process instrumentation requirements. You can be confident that we can provide a solution to suit all types of applications and industries.

Choose from a wide range of instruments to fit your unique requirements.



Single and Multi-Gas Detectors



Volatile Organic Compounds (VOC)



Indoor Air Quality and Medical



Fixed Systems



Biogas and Landfill



Calibration Systems and Gas



Wireless



Temperature and Level



Hazardous Area and Industrial Alarms



Flame Detectors



Flow and Pressure



Combustion and Emissions Analysers



Pipeline Inspection and Surveying

## OUR BRANDS

**apctechsafe**  
BY NZ SAFETY BLACKWOODS

**Honeywell**  
THE POWER OF **CONNECTED**

**BWF**  
by Honeywell

**RAE**  
SYSTEMS  
by Honeywell

**Geotech**

**CAC**  
GAS & INSTRUMENTATION

**GASTEC**  
GAS DETECTOR TUBE SYSTEM

**Heinrichs**

**BACHARACH**

**App-Tek**



**Esders**

## ▶ SINGLE GAS PERSONAL MONITORS

### BW Clip

The BW Clip is a maintenance free single gas detector. Just turn on the device and it runs continuously – No need for calibration, sensor replacement, battery replacement or battery charging. That means great reliability and no downtime.

- Available in a two year version for O<sub>2</sub>, CO or H<sub>2</sub>S
- Optional hibernation case can extend the life to three years
- Real time gas level display
- Automated internal test for improved safety
- Compatible with IntelliDox automated instrument management system
- Automatically logs the 35 most recent gas events for easy, accurate record keeping
- IP-66 Rated ingress protection rating

## Honeywell



Description	Part Number
BW Clip H <sub>2</sub> S	482924
BW Clip CO	482925
BW Clip O <sub>2</sub>	482926

### BW Solo

An easy to service single gas detector with Bluetooth® connectivity that provides real time visibility into the status and safety of hazardous area workers, helping companies respond faster, more knowingly and decisively to safety incidents.

- User-friendly operation
- Lightweight convenience
- 1 Series sensor for enhanced reliability
- Connected Bluetooth® Low Energy (BLE) capabilities
- Compatible with IntelliDox automated instrument management system
- Complete with an extensive selection of sensor options

## Honeywell



Description	Part Number
BW Solo NH <sub>3</sub> 0 – 1000ppm – Yellow, wireless	483794
BW Solo NH <sub>3</sub> 0 – 1000ppm – Yellow	483775
BW Solo Cl <sub>2</sub> 0 – 50ppm – Yellow, wireless	483797
BW Solo Cl <sub>2</sub> 0 – 50ppm – Yellow	483807
BW Solo H <sub>2</sub> S 0 – 200ppm – Yellow, wireless	483754
BW Solo H <sub>2</sub> S 0 – 200ppm – Yellow	483729
BW Solo CO 0 – 2000ppm – Yellow, wireless	483753
BW Solo CO 0 – 2000ppm – Yellow	483837
BW Solo HCN 0 – 100ppm – Yellow, wireless	483844
BW Solo HCN 0 – 100ppm – Yellow	483838
BW Solo NO <sub>2</sub> 0 – 100ppm – Yellow, wireless	483845
BW Solo NO <sub>2</sub> 0 – 100ppm – Yellow	483839
BW Solo O <sub>2</sub> 0 – 30% – Yellow, wireless	483846
BW Solo O <sub>2</sub> 0 – 30% – Yellow	483840
BW Solo PH <sub>3</sub> 0 – 5ppm – Yellow, wireless	483847
BW Solo PH <sub>3</sub> 0 – 5ppm – Yellow	483841
BW Solo SO <sub>2</sub> 0 – 100ppm – Yellow, wireless	483848
BW Solo SO <sub>2</sub> 0 – 100ppm – Yellow	483842
BW Solo H <sub>2</sub> 0 – 1000ppm – Yellow, wireless	483849
BW Solo H <sub>2</sub> 0 – 1000ppm – Yellow	483843

### ToxiRAE Pro EC

Compact, reliable and easy to use, the ToxiRAE Pro doesn't get in the way of workers doing their job and provides unmistakable five way local and remote alarms if a threat is detected or a man is down. Plus, it offers the flexibility of easily swappable sensors to monitor for different gases in different situations.

- Over 20 intelligent interchangeable sensors that store calibration data and are field replaceable
- Reliable, rugged and intrinsically safe
- Rechargeable Li-ion battery with up to 30hrs run time
- Built-in man down alarm
- Continuous data logging
- Fully automated bump testing and calibration with AutoRAE 2
- Optional wireless ability to monitor real time instrument readings remotely
- IP-65 Rated ingress protection rating

## Honeywell



Description	Part Number
ToxiRAE Pro H <sub>2</sub> S	483299
ToxiRAE Pro CO	482424
ToxiRAE Pro O <sub>2</sub>	482481
ToxiRAE Pro NH <sub>3</sub>	481365
ToxiRAE Pro Cl <sub>2</sub>	481229
ToxiRAE Pro HCN	481874

### ToxiRAE Pro CO<sub>2</sub>

The ToxiRAE Pro CO<sub>2</sub> is a small and smart solution for carbon dioxide monitoring. The unit offers continuous data logging and is a great safety tool for industries such as food and beverage, wineries and breweries and chemical manufacturing.

- Rechargeable Li-ion battery with up to 11hrs run time
- Built-in man down alarm
- Continuous data logging
- Fully automated bump testing and calibration with AutoRAE 2
- Optional wireless ability to monitor real-time instrument readings remotely
- IP-65 Rated ingress protection rating

## Honeywell



Description	Part Number
ToxiRAE Pro CO <sub>2</sub>	481913

### ToxiRAE Pro LEL

Compact, reliable and easy to use, the ToxiRAE Pro doesn't get in the way of workers doing their job and provides unmistakable five way local and remote alarms if a threat is detected or a man is down. Plus it offers the flexibility of easily swappable sensors to monitor for different gases in different situations.

## Honeywell



Description	Part Number
ToxiRAE Pro LEL 0 – 100%	481462

## TECHNICAL TIP

### BUMP TESTING & CALIBRATION

- It is recommended to bump test your gas detector before each use to ensure it is working correctly
- If it fails the bump test, it must be calibrated
- Portable gas detectors should be calibrated at least every six months



### MULTI-GAS PERSONAL MONITORS

#### BW MicroClip Series

The MicroClip's small size, reliability and easy one button operation makes it the most popular portable multi-gas detector on the market. With continuous monitoring of four gases, the unit is ideal for a variety of applications such as personal protection and confined space entry.

- Rechargeable battery – Up to 18hrs run time
- Flashing green IntelliFlash light for compliance at a glance
- Equipped with standard data logging and event logging
- Compatible with IntelliDox automated instrument management system
- BW MicroClip XL for standard operation with two year warranty
- BW MicroClip X3 for extended reliability with three year warranty
- IP-68 Rated for maximum water and dust protection

**Honeywell**



Description	Part Number
BW MicroClip XL (O <sub>2</sub> , CH <sub>4</sub> , CO, H <sub>2</sub> S)	481684
BW MicroClip X3 (O <sub>2</sub> , CH <sub>4</sub> , CO, H <sub>2</sub> S)	482660
Bump test kit BW MicroClip XL	482178
Bump test kit BW MicroClip X3	482671

#### BW Clip4

The simplicity of 'always on'. The safety and quality of Honeywell.

When you've got your hands full in the field, you need no hassle gas detection you can count on; The BW Clip4 four gas detector.

- No charging and no battery replacement
- Low cost of ownership (two year life)
- Calibration can be done every six months by APC Techsafe or by using the IntelliDox

Note: the unit will be supplied switched 'ON' and calibrated with a certificate

**Honeywell**



Description	Part Number
BW Clip4 (O <sub>2</sub> , CH <sub>4</sub> , CO, H <sub>2</sub> S)	483110

#### BW Quattro

The Quattro is a rugged four gas monitor solution.

It's one button operation and large LCD display makes it easy to use and clearly identify operational information. With the option of either rechargeable or alkaline batteries, this unit is always ready and reliable. With continuous monitoring of four gases, the unit is ideal for a variety of applications including confined space entry.

- Rechargeable or alkaline battery option (20hrs rechargeable; 14hrs alkaline)
- Enhanced resistance to common industrial cross sensitive gases such as methanol and ethanol (CO and H<sub>2</sub>S sensors)
- Comprehensive data logging and event logging capacity
- Flashing green IntelliFlash light for compliance at a glance
- Compatible with IntelliDox automated instrument management system
- IP-66 Rated ingress protection rating

**Honeywell**



Description	Part Number
BW Quattro (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	481680
Bump test kit BW Quattro	482179

#### BW Max XT II

The BW Max XT II utilises a robust motorised pump for remote sampling, combined with an easy one button operation. It is the simple and smart four gas compliance monitor. The continuous monitoring of four gases means the unit is ideal for a variety of applications such as personal protection and confined space entry.

- Robust motorised pump can sample from up to 23m
- Rechargeable battery – Up to 13hrs run time
- Flashing green IntelliFlash light for compliance at a glance
- Full self test of a sensor, battery status, circuit integrity and audible/visual alarms on start up
- Equipped with standard data logging and event logging
- Compatible with MicroDock II automatic test and calibration station
- IP-66 Rated ingress protection rating

**Honeywell**



Description	Part Number
BW Max XT II (O <sub>2</sub> , CH <sub>4</sub> , CO, H <sub>2</sub> S)	403749
Bump test kit BW Max XT II	482180

#### BW Ultra

A five gas detector from Honeywell that is designed specifically for sampling and monitoring confined spaces, before and after entry. It benefits from unmatched sensor technology, visibility on gas readings, comfort, and connectivity – Even in most extreme working conditions. The BW Ultra simultaneously detects the four gases you're required to monitor in confined spaces. Plus, there is a fifth sensor for the gas of your choice. This way you can add a fifth level of protection for your confined space entries.

- Large, easy to view screen
- Enhanced situational awareness for the hole watch
- 1 series sensor for enhanced reliability
- Honeywell TouchConnect technology for quick instrument management
- Remote monitoring for an additional layer of protection
- Expected life time for sensors: up to five years

**Honeywell**



Description	Part Number
BW Ultra 5 gas detector (O <sub>2</sub> , LEL, H <sub>2</sub> S, CO, VOC) yellow – wireless	483637
BW Ultra 5 gas detector (O <sub>2</sub> , LEL, H <sub>2</sub> S, CO, CO <sub>2</sub> ) yellow – wireless	483638
BW Ultra 5 gas detector (O <sub>2</sub> , LEL, H <sub>2</sub> S, CO, SO <sub>2</sub> ) yellow – wireless	483639
BW Ultra 5 gas detector (O <sub>2</sub> , LEL, H <sub>2</sub> S, CO, NH <sub>3</sub> ) yellow – wireless	483851
BW Ultra 5 gas detector (O <sub>2</sub> , LEL, H <sub>2</sub> S, CO, CL <sub>2</sub> ) yellow – wireless	483852

## TECHNICAL TIP

### CARE & STORAGE

#### Maintain portable gas detectors with care to ensure safe operation

- Service and calibrate at least every six months
- Do not clean with anything other than a warm damp cloth
- Do not use or store near silicone based products
- Keep sensor screens clean and free of debris or obstructions
- Do not poke holes in sensor screens
- Do not store in direct sunlight
- Replace inlet filters



Use protective filters to keep sensors clean and functioning correctly.



## Training is essential for work in confined spaces

#### Our practical training courses include:

- Plan a Confined Space Entry
- Confined Space Hazards
- Atmospheric Testing
- Perform Gas Tests for Energy and Chemical Plants

For more information contact us on 0800 660 660 or email [training@nzsafetyblackwoods.co.nz](mailto:training@nzsafetyblackwoods.co.nz)



### QRAE 3

QRAE 3 is a versatile, rugged, four sensor pumped or diffusion gas monitor that provides continuous exposure monitoring of oxygen (O<sub>2</sub>), combustibles, and toxic gases, including hydrogen sulphide (H<sub>2</sub>S), carbon monoxide (CO), sulphur dioxide (SO<sub>2</sub>) and hydrogen cyanide (HCN) for workers and responders in hazardous environments. The QRAE 3's wireless communications capability enables access to real time instrument readings and alarm status (including man down alarm) from any location for better visibility and faster response.

- Pumped and diffusion models available
- Real time gas detector readings and alarm status enabled by state of the art wireless technology
- Unmistakable five way local and remote wireless notification of alarm conditions
- Intuitive simple to operate two button user interface
- Strong, protective and concussion proof design

## Honeywell



Description	Part Number
QRAE 3 Pumped (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	482648
QRAE 3 Diffusion (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	482928

### MicroRAE

The MicroRAE is a wireless multi-gas diffusion monitor that simultaneously measures up to four gases; including hydrogen sulphide (H<sub>2</sub>S), carbon monoxide (CO), oxygen (O<sub>2</sub>) and combustibles (LEL). With it's multiple wireless connectivity options the MicroRAE can deliver real time instrument readings, location and alarm status to other wireless solutions such as ProRAE Guardian, Loneworker and Safety Communicator.



- Honeywell ConneXt compatible with mesh and Wi-Fi wireless configurations
- Bluetooth® Low Energy (BLE) connection to a smart phone device for uplink data communication and device configuration
- Compact and lightweight design
- Strong, protective and concussion proof design
- Unmistakable five way local and remote wireless notification of alarm conditions
- Short bump test and calibration time
- Filtered LEL sensor options to inhibit sensor poisoning
- IP-67 Rated water and dust resistant case

## Honeywell



Description	Part Number
MicroRAE Bluetooth® (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	482933
MicroRAE Bluetooth®, wireless 900MHz & GPS (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	482833

### MultiRAE Lite Pumped

This multi-gas monitor provides versatile, customisable detection and monitoring of up to six gases, available in both pumped and diffused air models. With more than 25 sensors to choose from – The broadest selection in its class – it can test for CO<sub>2</sub>, combustibles and a range of toxic threats, as well as monitor sufficient oxygen levels, making it an excellent choice for personal protection and leak detection in a range of industries and applications.

- Multi-gas monitor for 1 – 6 Gases
- Man down alarm with optional real time wireless technology
- Fully automatic bump testing and calibration
- Five way local and remote wireless alarm

## Honeywell



Description	Part Number
MultiRAE Lite – Pumped (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S, CO <sub>2</sub> )	482138
MultiRAE Lite – Pumped (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S, PID)	481978

## ACCESSORIES

### Auxiliary Kits



BW MicroClip

BW Quattro

BW Ultra

Description	Part Number
BW MicroClip filter kit	402657
BW Quattro filter kit	481681
BW Ultra screen protector	483879

### Carry Case for Instruments



Description	Part Number
Nanuk 904	482685

### Protective Rubber Boot



BW Quattro

BW Max XT II

BW Ultra

Description	Part Number
BW Quattro rubber boot	480892
BW Max XT II rubber boot	481002
BW Ultra rubber boot	483878

### 5 Bay Chargers



Description	Part Number
BW MicroClip 5 bay charger	481067
BW Quattro 5 bay charger	481998
BW Max XT II 5 bay charger	481509
BW Ultra 5 bay charger	483883

### Vehicle Chargers

## Honeywell



Description	Part Number
BW MicroClip, BW Quattro, BW Max XT II & BW Ultra	481667

### MicroRAE Cradle Charger

## Honeywell



Description	Part Number
MicroRAE cradle charger	483251

## TECHNICAL TIP

### BUMP TEST EVERY DAY

A bump test prior to each day's use assures you that the sensors and alarms of your unit will function properly before entering a hazardous area.

A daily bump test should be part of the standard operating procedures when using a gas detector.



**Always bump test before starting work - don't assume your detector is functioning correctly.**

Other events that should prompt a bump test may include:

- If there is any doubt as to whether the gas detector sensors are functioning properly
- If a sensor has been subjected to a concentration of gas that exceeds the measurable range
- If a combustible gas sensor has been exposed to a known poison or inhibitor (e.g. silicone sprays, brake cleaners, high sulphide levels)
- If a detector has been subjected to abnormal physical shock or damage

## BW Connect

Instantly transform your dependable BW gas detectors into wireless gas monitoring devices. This adaptor can be attached quickly to your current detectors and paired with any available smartphone via Bluetooth®. An easy to use, cost effective addition, compatible with the Honeywell Safety Communicator App, Honeywell BW Connect grants real time visibility of your workers' safety status.

- Compatible with BW MicroClip XL, BW MicroClip X3, BW Max XT II
- Seamlessly integrates with the Safety Communicator App
- Battery runtime: up to 12 months, non-rechargeable
- Bluetooth® Low Energy (BLE)
- Wireless range: Up to 10m

## Honeywell



Description	Part Number
BW Connect IRDA to BLE adaptor	483836

## Loneworker

## Honeywell

The Honeywell Loneworker solution helps companies improve the safety, compliance and productivity of lone workers whether they're in the far corners of a plant or working in a remote location kilometres away. The Loneworker solution combines the Bluetooth® portable gas detector solution with mobile application and cloud based software for remote monitoring of a worker's safety status and location.

Using this software, managers can easily determine the location of their lone workers, check real time readings on their gas monitors, receive automatic alerts when there's a gas alarm or man down, send text messages to workers and more. It allows them to make informed decisions in real time to prevent catastrophic incidents. With Loneworker, workers can operate confidently and productively, knowing that someone is always looking out for their safety.

With Loneworker Facility, you don't have to make an expensive capital outlay for smartphones, data and voice plans and gas monitors. Instead, pay an affordable monthly subscription price per worker and enable real time monitoring for your lone workers. In addition, at the end of your subscription term, the equipment is yours to keep. You can also choose to renew your subscription. To simplify the ordering process, the Loneworker solution is available in various subscription bundles.



Description	Part Number
Loneworker real time monitoring yearly subscription (per worker role)	483850

## CALIBRATION, BUMP TEST & FLEET MANAGEMENT SYSTEMS

### SafetySuite – Device Manager

## Honeywell

It's about time you were offered a working solution to allow you to spend less time on administering your portable detector fleet. If you are responsible for gas detector compliance management, you already know that collecting, analysing and reporting such information can be extremely time consuming. The Honeywell Safety Suite enables you to manage your fleet of Honeywell portable gas detectors and docks with ease – RAE and BW together for the first time. It reduces the burden of administration and simplifies compliance so you can concentrate on keeping people safe.

Its highly intuitive and user-friendly interface enables you to pull all the necessary data in an intelligent, effective, and time saving way. Its state of the art technology ensures that all the data is encrypted, minimizing privacy threats.

- Available in two versions, suitable for local deployments (Windows based software, Honeywell Safety Suite Device Configurator) or multi-site fleet management (Cloud based software, Honeywell Safety Suite Device Manager)
- Compatible with both Honeywell BW Technologies and RAE Systems products
- Easy worker – Device assignment
- Reduced maintenance through streamlined Firmware Management
- Save time with one click data download for all instrument data
- Different tier licensing is available to suit your requirements



Description	Part Number
1 Device – 3 Year agreement	483829

## IntelliDoX

The IntelliDoX system combines smart docking modules and device management software to provide automated instrument management helping you drive productivity, reliability and efficiency.

- Enables bump test tracking, email notices and easy record keeping for improved compliance
  - Performs the quickest bump test in the industry for increased uptime and no wasted calibration gas
  - Enables the ability to change alarm set points, set a non-compliance indicator when a bump test is due and adjust other parameters for maximum flexibility
  - Easy setup with network or USB drive – No tools required
  - Expandable to five docking modules that can operate independently while sharing power, network connection and calibration gas
  - Easy data transfer by Ethernet or USB, from docking module to computer IntelliDoX enabler kit is required to add multiple cradles together
- Note: Gas and regulator required  
– Enquire for options



Description	Part Number
BW MicroClip XL, X3	483309
Enabler kit	482668
BW Solo	483717
BW Ultra	483640

## AutoRAE 2

The AutoRAE 2 automatic test and calibration system makes compliance with gas monitor test and calibration requirements as easy as pressing a button. Simply cradle the monitor and the system will take care of all calibration, testing, recharging, and calibration record keeping. The AutoRAE 2 is a flexible modular system that can be configured to meet your requirements effectively and efficiently.

An AutoRAE 2 system can be as simple as a single cradle deployed in a standalone mode to calibrate one instrument at a time using up to two different gas cylinders, or as powerful as a controller based system supporting 10 instruments and five gas cylinders.

- Easy one touch bump testing, calibration, charging and records management
- Supports a wide variety of gases, including exotics
- Optimised for field use – Does not require a computer to operate
- Deployable as a standalone cradle or a controller based system with up to 10 cradles
- Networking capability – Data storage on a standard SD card

Note: Gas and regulator required

– Enquire for options



Description	Part Number
AutoRAE 2 controller	482702
ToxiRAE Pro cradle	482703
MicroRAE cradle	483112
QRAE 3 cradle	482286
MultiRAE Pumped cradle	482398
MiniRAE/ppbRAE cradle	482929

## Honeywell

## Bump Test Kits

Our confined space kits are supplied calibrated, certified and ready to use.

### Kit includes:

- Gas detector with four sensors (H<sub>2</sub>S, CO, O<sub>2</sub> and CH<sub>4</sub>)
- Hard carry case
- Battery and charger
- Regulator, adaptor and tube
- 34L Bump test gas cylinder



Description	Part Number
Bump test kit BW MicroClip XL	482178
Bump test kit BW MicroClip X3	482671
Bump test kit BW Quattro	482179
Bump test kit BW Max XT II	482180
Bump test kit 34L (no instrument)	482238
Bump test kit 65L (no instrument)	482239

## BTS-X: Bump Test Station

A fully stainless steel pneumatic system, this bump test station has no electrical or battery power, allowing it to be used in any environment. Save time and increase productivity by testing instruments without leaving the work zone.

### One Button Operation:

A simple push of a button provides up to 60 seconds of gas flow, sufficient for testing most gas detection devices. Can be used with all gas types including corrosive gas mixtures and can test two instruments simultaneously. Designed to maximize efficiency and minimize cost the BTS-X comes ready to be used with non-refillable (disposable) cylinders and high pressure/large volume cylinders. Comes complete with a mounting back plate, a two way splitter and tubing for easy installation in minutes. The first global bump testing station for every instrument, anywhere in the world.



Description	Part Number
BTS-X: bump test station	483853

## GAS CYLINDERS

### Quad Gas Mixtures

- For calibrating or bump testing multi-gas instruments with H<sub>2</sub>S, CO, O<sub>2</sub> and LEL sensors
- Alternatively for manual bump test and calibration, use with a fixed flow regulator and your instruments calibration cap
- Non-refillable cylinders are available for most gas mixtures, and sizes available are 34, 65 and 112L
- Ideal for use with automated bump test and calibration stations with the demand flow regulator



Description	Part Number
GAS 112L 4 gas mix with methane in N <sub>2</sub> (100ppm CO, 25ppm H <sub>2</sub> S, 50% LEL, 18% O <sub>2</sub> )	481106
GAS 112L 4 gas mix with pentane in N <sub>2</sub> (100ppm CO, 25ppm H <sub>2</sub> S, 25% LEL, 18% O <sub>2</sub> )	482214
GAS 112L 4 gas mix with propane in N <sub>2</sub> (100ppm CO, 25ppm H <sub>2</sub> S, 50% LEL, 18% O <sub>2</sub> )	481872
GAS 65L 4 gas mix with methane in N <sub>2</sub> (100ppm CO, 25ppm H <sub>2</sub> S, 50% LEL, 18% O <sub>2</sub> )	481015
GAS 65L 4 gas mix with pentane in N <sub>2</sub> (100ppm CO, 25ppm H <sub>2</sub> S, 25% LEL, 18% O <sub>2</sub> )	481510
GAS 65L 4 gas mix with propane in N <sub>2</sub> (100ppm CO, 25ppm H <sub>2</sub> S, 50% LEL, 18% O <sub>2</sub> )	481108
GAS 34L 4 gas mix with methane in N <sub>2</sub> (100ppm CO, 25ppm H <sub>2</sub> S, 50% LEL, 18% O <sub>2</sub> )	481331

### Single Gas Mixtures

- Non-refillable cylinders are available for most gas mixtures, whether it is a single gas or a complex blend
- 103DS Non-refillable cylinder is available for noncorrosive gas mixtures such as hydrocarbons, CO, CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub>, refrigerants and many others whether it is a single gas or a complex blend
- 112DA Aluminium cylinder can be used for all gas types including corrosive gases such as H<sub>2</sub>S, HCN, HCL, NH<sub>3</sub>, NO, NO<sub>2</sub>, SO<sub>2</sub> and many others



Description	Part Number
Gas 112L ammonia in air (50ppm NH <sub>3</sub> )	481298
Gas 112L hydrogen sulphide in air (25ppm H <sub>2</sub> S)	481297
Gas 112L nitrogen dioxide in air (5ppm NO <sub>2</sub> )	481631
Gas 112L sulphur dioxide in air (10ppm SO <sub>2</sub> )	481017
Gas 112L hydrogen cyanide in N <sub>2</sub> (10ppm HCN)	483264
Gas 103L carbon dioxide in air (1.0% Vol CO <sub>2</sub> )	481358
Gas 103L carbon monoxide in air (1000ppm CO)	481856
Gas 103L isobutylene in air (100ppm Isobutylene)	481105
Gas 103L methane in air (50% LEL)	481442
Gas 103L pentane in air (50% LEL)	481018
Gas 103L propane in air (50% LEL)	481019
Gas 103L nitrogen (100% Nitrogen)	481299
Gas 103L synthetic zero air	481295
Gas 103L hydrogen in N <sub>2</sub> (500ppm H <sub>2</sub> )	481635
Gas 103L carbon Dioxide in air (3.0%)	482130
Gas 103L refrigerant in air (100ppm R410A)	482302
Gas 65L chlorine in N <sub>2</sub> (5ppm Cl <sub>2</sub> )	482144
Gas 60L phosphine in N <sub>2</sub> (5ppm PH <sub>3</sub> )	481514
Gas 34L isobutylene in air (100ppm Isobutylene)	482047

Other gas mixtures available on request

### Hard Carry Case

- Hard carry case for your gas cylinders and regulators
- Impact resistant hard sided case
- Holds 1 – 3 Cylinders
- L424 x W340 x H173mm
- Waterproof – IP67 Rated



Description	Part Number
Carry case for cylinders (all 34, 65, 103, 112L cylinders)	482718

### Cylinder Carry Case

- Lightweight carry case with shoulder strap
- Able to carry three cylinders up to 112L in size
- Transparent front pockets for paperwork, tubing and regulators



Mfr No.	Description	Part Number
GCCB-300	Soft carry case – 3 Cylinders	482045

### Cylinder Back Pack

- Four cylinder back pack
- Comes with a zipper pouch on the top designed for carrying regulators, tubing and fittings with pockets for documentation
- Padded shoulder straps and backing with side pockets for water bottles add to its ergonomic design



Mfr No.	Description	Part Number
GCBP-400	Soft back pack – 4 Cylinders	482046

## HIGH PRESSURE QUAD GAS MIXTURES

### High Pressure Cylinders



Description	Cylinder Capacity	Service Pressure	Material	Size mm	Weight kg	Part Number
2AL	Gas volume 300L	150 bar	Aluminium	410 x 100	2.9	483313
5L	Gas volume 750L	150 bar	Aluminium	504 x 150	8	483312

### Regulators for High Pressure

- Ideal for calibration systems such as docking stations and instruments with their own internal pumps



Description	Part Number
Demand flow – High pressure	482298
Fixed flow regulator – High pressure – 0.5L/min	483310
BS-15 connector – Required for regulator	483311

## REGULATORS & TUBING

### Fixed Flow Regulator

- Designed to manually bump test or calibrate gas detectors
- Stainless steel regulators are highly recommended for corrosive gases such as CL<sub>2</sub>, HCN, NO, NO<sub>2</sub>, NH<sub>3</sub>



Description	Part Number
0.3L/min For aluminium & steel cylinders	481124
0.5L/min For aluminium & steel cylinders	481125
1.0L/min For aluminium & steel cylinders	482215
0.5L/min Stainless steel for aluminium cylinders	481621
1.0L/min Stainless steel for aluminium cylinders	481622

## Demand Flow Regulator

- Designed for use with instruments fitted with a sample pump or automatic calibration stations
- Stainless steel regulators are highly recommended for corrosive gases such as  $CL_2$ , HCN, NO,  $NO_2$ ,  $NH_3$



Description	Part Number
Demand flow for aluminium & steel cylinders	481566
Demand flow stainless steel for aluminium cylinders	481620

## Variable Flow Regulator

- 0.5 – 5L/min can be set to match your instruments flow rate



Description	Part Number
0.5 – 5L/min For aluminium and steel cylinders	481422

## Tygon Tubing

- Available in standard or FEP lined for use with VOC's or  $CL_2$
- Dimensions:  $\frac{3}{16}$ " inner diameter,  $\frac{5}{16}$ " outer diameter



Description	Part Number
Standard: for all noncorrosive gases & $H_2S$ or $SO_2 < 50ppm$	481873
FEP: for use with corrosive gases $CL_2$ , HCN, NO, $NO_2$ , $NH_3$ & some VOC's	482935

## GASTEC SAMPLING PUMP KITS

### Gastec Sampling Pump Kits

- Quick and easy sampling
- Built-in tip breaker
- Supplied with case, lubricant and instructions
- Available with automatic sampling stroke counter



Description	Part Number
Pump GV-100S (standard)	480122
Pump GV-110S (with counter)	480123

### Gastec Tubes

Gastec gas detector tubes are thin glass tubes with calibration scales so you can directly read concentrations of the gases and vapours to be measured. Each tube contains detection reagent(s) that are sensitive to the target substance and quickly produce a distinct layer of colour change.

- Over 500 Different tubes are available
- On site measurements can be performed quickly and easily
- Easy to check direct reading system
- Use with the Gastec sampling pump 480122 or 480123



Description	Part Number
75L Butyl mercaptan	480318
4H Hydrogen sulphide	480282
70L Total mercaptans	480311
2LC Carbon dioxide	480264
3L Ammonia	480275
2H Carbon dioxide	480261
4LT Hydrogen sulphide	480290
1LC Carbon monoxide	480247
4LL Hydrogen sulphide	480289
6L Water vapour	480307

## COMPRESSED BREATHING AIR MEASUREMENT

### Compressed Breathing Air Measurement Kit

Gastec CG-1 system can simply, quickly and simultaneously measure four kinds of harmful contaminants ( $CO$ ,  $CO_2$ , water vapour and oil mist) contained in compressed breathing air (cylinder or compressor).

- Accurate simultaneous measurement of four impurities ( $CO$ ,  $CO_2$ , water vapour and oil mist) in compressed breathing air achieved by simply connecting the device to a cylinder or compressor
- Easy measurement without any electricity or power source
- Handy carrying case for storage and easy portability



Description	Part Number
Compressed breathing air measurement kit (CG-1)	483209
Pressure reducer (GC1-10)	483210
Conversion adaptor	483211
Flow meter (CG1-13)	483212

## MULTI-GAS SURVEY MONITORS

### MultiRAE

### Honeywell

This multi-gas monitor provides versatile, customisable detection and monitoring of up to six gases, available in both pumped and diffused air models. With more than 25 sensors to choose from – The broadest selection in its class – It can test for VOCs, combustibles, and a range of toxic threats, as well as monitor sufficient oxygen levels, making it an excellent choice for personal protection and leak detection in a range of industries and applications. The wireless connection sends threat and alarm data in real time to a central command, providing superior awareness for fast incident response. It's replaceable sensors, alarm, and battery, large screen, and automated bump testing and calibration make it easy to use and maintain.

- Multi-gas monitor for 1 – 6 Gases
- Man down alarm
- More than 25 Different chemical sensors
- Fully automatic bump testing and calibration
- Real time access to readings at central command swap out sensors as needed
- Simple maintenance with replaceable sensors, pump, and battery
- 5 Way local and remote wireless alarm
- MultiRAE Lite: 1 – 1,000ppm range 10.6eV lamp
- MultiRAE: 0.1 – 5,000ppm range 10.6eV lamp
- IR  $CO_2$  Sensor: 0 – 50,000ppm range



Description	Part Number
MultiRAE Lite – Pumped ( $O_2$ , LEL, $CO$ , $H_2S$ , $CO_2$ )	482138
MultiRAE Lite – Pumped ( $O_2$ , LEL, $CO$ , $H_2S$ , PID)	481978

## PORTABLE PID MONITORS

### ToxiRAE Pro PID

The ToxiRAE Pro PID is a small and smart solution for monitoring Volatile Organic Compounds (VOCs). The unit offers continuous datalogging and can be used for applications such as environmental monitoring and industrial hygiene and safety.

- Cutting edge PID with 0.01 – 2,000ppm range and 190 built-in correction factors
- Rechargeable Li-ion battery with up to 12hrs run time
- Available in industrial hygiene (advance) or safety (standard) configurations
- Wireless access to real time instrument readings and alarm status from any location
- Reliable, rugged and intrinsically safe
- Continuous datalogging
- IP-54 Rated ingress protection rating

**Honeywell**



Description	Part Number
ToxiRAE Pro PID (hygiene)	481309

### MiniRAE Lite

The MiniRAE Lite is one of the most reliable handheld Volatile Organic Compound (VOC) monitors on the market. Its photoionization detector's (PID) range of 0 – 5,000ppm makes it an ideal instrument for applications ranging from environmental to construction.

- PID measures from 0 – 5,000ppm
- Typical battery life of 12hrs
- 3 Second response time
- Patented Reflex PID Technology
- Humidity compensation
- Optional Bluetooth® Low Energy (BLE) capabilities

**Honeywell**



Description	Part Number
MiniRAE Lite (0.0 – 5,000ppm)	482087

### MiniRAE 3000+

The MiniRAE 3000+ is a comprehensive handheld Volatile Organic Compound (VOC) monitor that uses a third generation patented PID technology to accurately measure one of the highest levels of ionizable chemicals available on the market. It provides full range measurement from 0 – 15,000ppm of VOCs. The MiniRAE 3000+ has a built-in wireless modem that allows real-time data connectivity with the command centre located up to 3km away through a Bluetooth® connection to a RAElink 3 portable modem or optionally via Mesh Network.

- Sensor configuration VOC 0 – 15,000ppm
- Typical battery life of 16hrs
- Rapid 3sec response time
- Patented Reflex PID Technology
- Humidity compensation
- Wireless capability
- Optional Bluetooth® Low Energy (BLE) capabilities

**Honeywell**



Description	Part Number
MiniRAE 3000 + (0.0 – 15,000ppm)	481584

### ppbRAE 3000+

The compact ppbRAE 3000+ is a Volatile Organic Compound (VOC) gas monitor and datalogger for hazardous environments. The ppbRAE 3000+ is one of the most advanced handheld VOC monitors available for parts per billion detection. This third generation patented PID device monitors VOCs using a photoionization detector with a 9.8eV, 10.6eV UV discharge lamp. The built-in wireless modem allows real time data connectivity with the command centre located up to 3km away (with optional RAElink3 portable modem) from the detector.

- Extended range from 1ppb – 10,000ppm with highly acute linearity
- Accurate VOC measurement in all operating conditions
- Easy access to battery, lamp and sensor in seconds without tools
- Patented sensor and lamp auto cleaning reduces maintenance
- Monitors real time readings and location of people
- Low cost of ownership: Three year 10.6eV lamp warranty
- Optional Bluetooth® Low Energy (BLE) capabilities

**Honeywell**



Description	Part Number
ppbRAE 3000+ (1ppb – 10,000ppm)	480898

### UltraRAE 3000+

The UltraRAE 3000+ is one of the most advanced compound specific monitor on the market and one of the few monitors that deliver accurate measurement of benzene from 10ppb – 200ppm and other VOCs up to 10,000ppm. A 60sec response for a benzene measurement snapshot and a unique 15min benzene STEL measurement provide excellent versatility for entry pre-screening, marine spill response, and refinery downstream monitoring. UltraRAE 3000+ is solution oriented through multiple connected options. A dedicated mobile application has been developed for safety managers and industrial hygienists. Instrument is also available with real time connectivity which can relay readings and alarm status up to 3km to a RAElink 3 Wireless transmitter.

- Accurate measurement of VOCs from 0.01 – 10,000ppm
- 9.8eV UV lamp for benzene and TVOC and 10.6eV and 11.7eV lamps for TVOC
- Typical battery life of 16hrs
- 3sec response time
- Patented Reflex PID Technology
- Humidity compensation
- Wireless capability
- Optional Bluetooth® Low Energy (BLE) capabilities

**Honeywell**

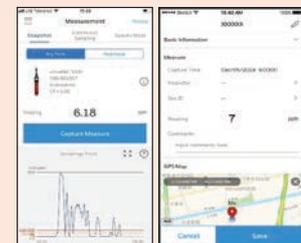


Description	Part Number
UltraRAE 3000 (Benzene 0.05 – 10,000ppm)	481876

## PRODUCT INSIGHT

### SURVEYING MADE SIMPLER

Use the smartphone app to make surveying easier and more efficient. This works with the MiniRAE 3000+, MiniRAE Lite+, ppbRAE 3000+ or UltraRAE 3000+.



To download the app visit



## TECHNICAL TIP

### MEASURING VOLATILE ORGANIC COMPOUNDS (VOCs)

Many explosive hazardous substances are toxic for humans at levels markedly below the Lower Explosive Limit (LEL) and cannot be detected at these levels by using only catalytic sensors.

Reliable detection of such substances in the ppm range can be accomplished using Photoionization Detectors (PIDs).

A PID measures VOCs and other toxic gases in low concentrations from ppb (parts per billion) up to 15,000ppm (parts per million or 1.5% v/v by volume).



A PID is a very sensitive broad spectrum monitor however a PID is not a selective monitor and has very little ability to differentiate between chemicals.

## FIXED PID MONITOR

### RAEGuard 2 PID

**Honeywell**

The RAEGuard 2 PID is a fixed photoionization detector (PID) that measures a broad range of Volatile Organic Compounds (VOCs). It operates on 10 – 28VDC and provides an analogue (4 – 20mA) three wire signal output and RS-485 Modbus digital signal output. Calibration and maintenance have been greatly simplified as the digital PID module can be easily removed in hazardous locations for calibration or maintenance.

- Faster response time, thanks to the sample flow through design
- Reduce maintenance cost, easy to remove sensor module in hazardous locations without using of tools
- No false alarms, large UV lamp and better sealing allows greater sensitivity, faster speed of response and better resolution
- Graphic display and LED light status indicator for fault and alarm conditions



Description	Part Number
RAEGuard 2, 1 – 1000ppm, no relays & factors	483141
RAEGuard 2, 0.1 – 1000ppm, relays & factors	481758

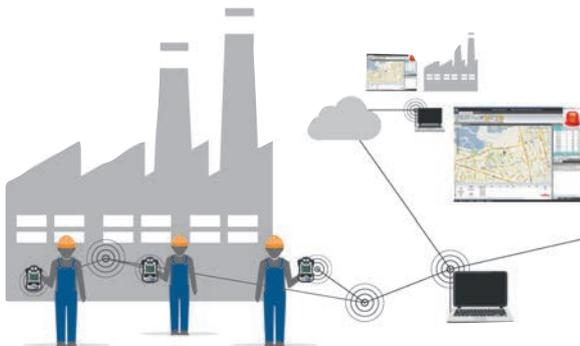
## WIRELESS FOUR GAS PORTABLE DETECTION

### MicroRAE

**Honeywell**

The MicroRAE is a wireless multi-gas diffusion monitor that simultaneously measures up to four gases, including hydrogen sulphide, carbon monoxide, oxygen and combustibles (LEL). With its multiple wireless connectivity options the MicroRAE can deliver real time instrument readings, location and alarm status to other wireless solutions such as ConneXt Plus, ConneXt Pro, ConneXt Loneworker and Safety Communicator.

- Real-time gas concentration reading, location, alarm and status enabled by state of the art wireless technology
- Bluetooth® Low Energy (BLE) connection to a smartphone device for uplink data communication and device configuration
- Rechargeable battery up to 15hrs continuous runtime
- Man down alarm with real-time remote wireless notification
- GPS module for location
- Full continuous datalogging complete with software and cables
- Fully automated bump testing and calibration with AutoRAE 2 docking station
- IP-67 Rated water and dust resistant case



Phone talks over cellular network to the same host PC as the other detectors



MicroRAE talks via Bluetooth Low Energy (BLE) technology to the phone

#### Flexible Detection

The MicroRAE comes in a non-wireless model equipped with BLE. If you're not ready to deploy a full scale wireless gas detection system you can still achieve remote monitoring of gas safety and compliance by pairing the detector with a smartphone and the Safety Communicator app.

Description	Part Number
MicroRAE Bluetooth®, (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	482138
MicroRAE Bluetooth®, wireless 900MHz + GPS (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	482833
MicroRAE Bluetooth®, wireless, Wi-Fi + GPS (O <sub>2</sub> , LEL, CO, H <sub>2</sub> S)	482934

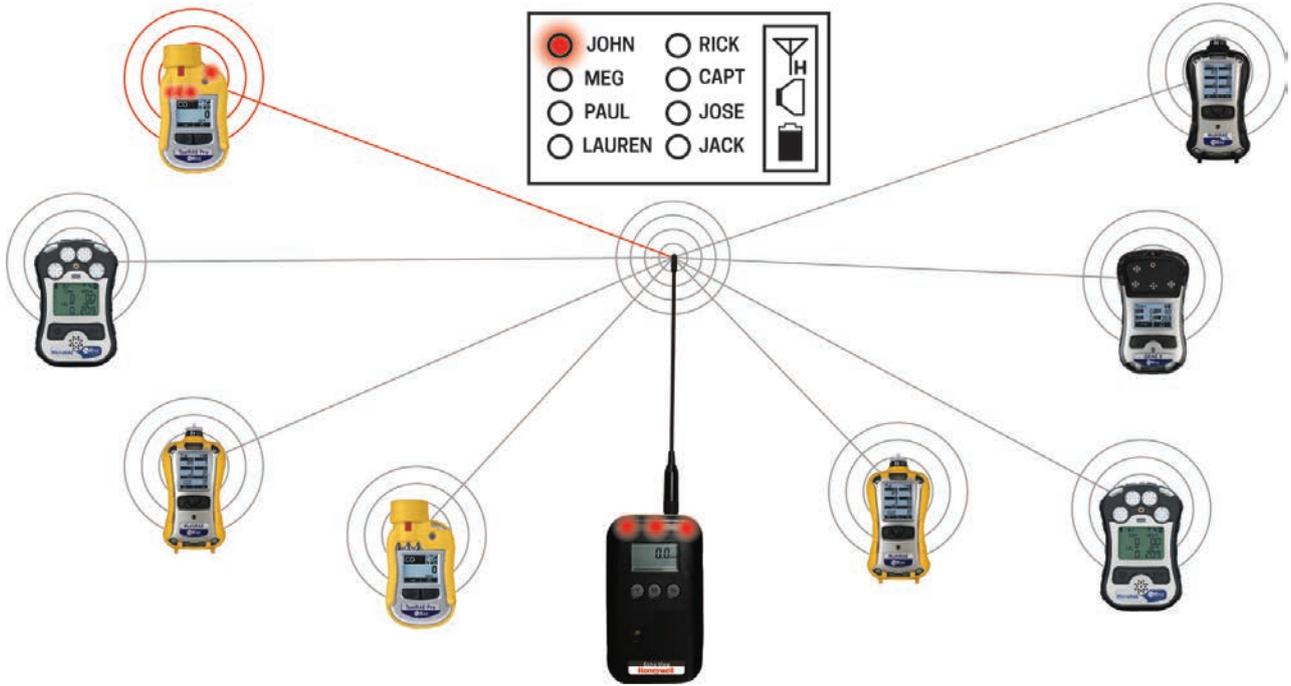
## WIRELESS SYSTEMS

### EchoView Host Mini-Controller

The EchoView Host is a mini-controller that creates a self-contained intelligent wireless network that supports up to eight monitors. The easy to read display allows connected devices' names to be customized for easy identification of the real time readings. The EchoView Host provides immediate remote notification of alarm conditions to keep workers informed, connected and protected.

- Establishes a closed loop wireless network, and displays real time readings and alarm status of up to eight portable gas monitors at the same time
- Communication range extendable to 1km (0.6mi) with mesh routers
- Field replaceable battery with a 10 Day runtime
- Loud audible alarm, 90dB @ 30cm, red high visibility alarm lights
- Highly resistant to electromagnetic and radio interference
- IP-65 Rated water and dust ingress protection rating

**Honeywell**



**Description**

EchoView Host 900Hz

**Part Number**

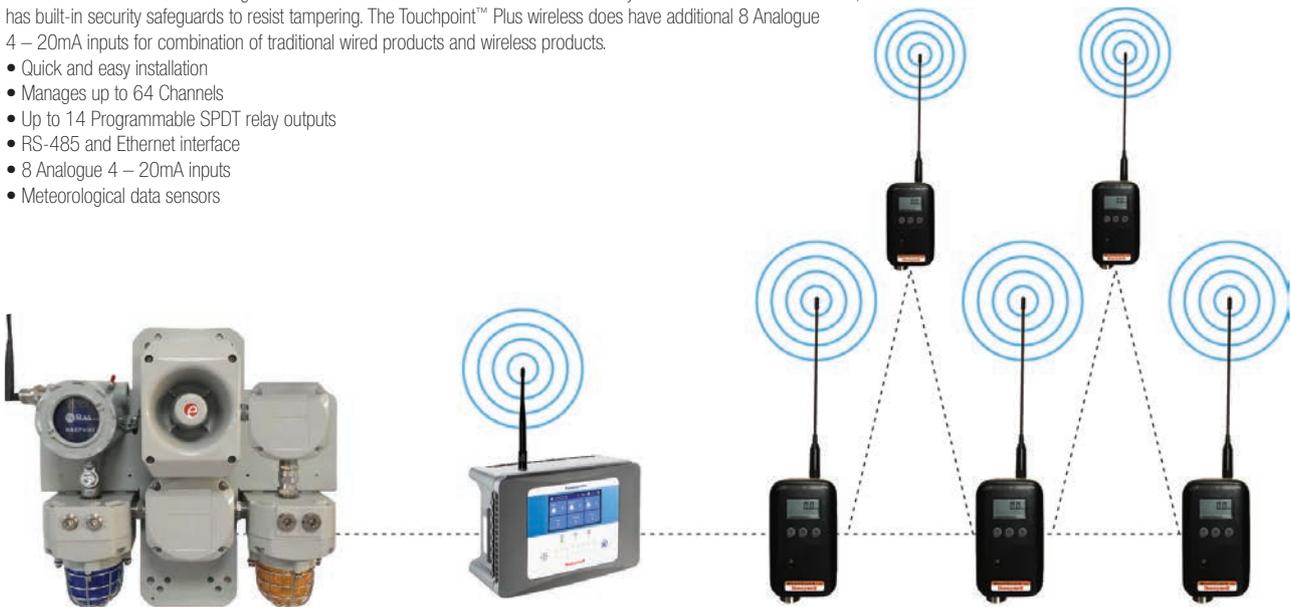
482284

### Touchpoint™ Plus Wireless

The Touchpoint™ Plus wireless is the command and control element of the MeshGuard system that gathers data and monitors alarms from MeshGuard toxic and flammable gas monitors. The built-in wireless modem automatically links with MeshGuard monitors, and the controller has built-in security safeguards to resist tampering. The Touchpoint™ Plus wireless does have additional 8 Analogue 4 – 20mA inputs for combination of traditional wired products and wireless products.

- Quick and easy installation
- Manages up to 64 Channels
- Up to 14 Programmable SPDT relay outputs
- RS-485 and Ethernet interface
- 8 Analogue 4 – 20mA inputs
- Meteorological data sensors

**Honeywell**



## AreaRAE Plus/AreaRAE Pro

### Remote visibility on more threats than ever for a new level of real-time situational awareness

AreaRAE Pro is a wireless, transportable area monitor that can simultaneously detect toxic and combustible gases, Volatile Organic Compounds (VOC), radiation and meteorological factors. Whether you're carrying it into a HazMat response, setting up a perimeter at a fire or protecting a public venue, the AreaRAE Pro works with Honeywell's remote monitoring software to give you a real time view of threat readings, so you can ensure the safety of your teams and the general public. In addition to supporting long distance remote monitoring, AreaRAE Pro comes with a built-in mesh modem to facilitate short range monitoring. AreaRAE Pro has a strong 108 decibel alarm, audible even in noisy environments. The monitor also has wraparound LEDs for maximum visibility, even in sunlight.

- Six 4R+ sensors slots for toxic and combustible gas – Choose from more than 20 sensors based on your needs
- 7R+ Photoionization detector, monitor VOCs at parts per billion, with built-in compensation for temperature and humidity
- New meteorological sensor for tracking toxic plumes. Use the RAEMet, a 5" tall sensor on top of the AreaRAE Pro, to measure wind speed, direction and other factors
- Optional gamma sensor for radiation detection, the gamma sensor has its own dedicated slot
- Enhanced wireless connectivity, primary (long range) – ISM, wi-fi network option
- Easy to use and deploy, so emergency response can be expedited and adapt to changing needs
- IP-65 Rating ingress protection



# Honeywell



## PRODUCT INSIGHT

### ONE EASY TO USE TRANSPORTABLE AREA DETECTOR FOR MULTIPLE GAS THREATS

AreaRAE Plus and AreaRAE Pro are wireless area monitors that can simultaneously detect:

- Toxic and combustible gases
- Volatile organic compounds (VOCs)
- Radiation
- Meteorological factors

## PORTABLE ANALYSER & INDOOR AIR QUALITY MONITORS

### G100

The G100 provides the user with a fast, simple to use and accurate piece of laboratory kit. The key benefit of using the G100 is the ability to take simultaneous CO<sub>2</sub>, O<sub>2</sub>, relative humidity and temperature readings.

- Enables quick verification and validation of CO<sub>2</sub> levels in incubators
- Used and distributed globally to the medical and research industries
- CO<sub>2</sub> measurement levels between 0 – 20%
- Improved accuracy on CO<sub>2</sub> readings
- Optional extra gases: measures O<sub>2</sub> (0 – 100%); dual temperature probe (0 – 50°C); humidity sensor (0 – 100%)
- Large data storage and data download available for all your readings



#### Description

G100 Incubator analyser (CO<sub>2</sub>, O<sub>2</sub>)  
Complete with internal pump, battery charger & sample tube/filters

#### Part Number

481225

### G110

The G110 CO<sub>2</sub> analyser is designed to monitor CO<sub>2</sub> for multiple applications, including brewing industry. This unit has been developed to incorporate the latest technology and specification requirements, that provide the user with a fast, simple to use analyser.

- Measures CO<sub>2</sub> (0 – 100%)
- Measures O<sub>2</sub> (0 – 100%)
- Humidity sensor 0 – 100%
- Data download and storage
- Accurate CO<sub>2</sub> readings
- Time saving with dual temperature probes
- Large data storage and user friendly software for download
- Built-in gas moisture removal



#### Description

G110 CO<sub>2</sub>/O<sub>2</sub> 100% Range analyser  
Complete with G1.8 RH probe G110-11N

#### Part Number

482731

## G150

This unit has been developed to incorporate the latest technology and specification requirements to provide you with a fast, simple to use and accurate piece of environmental field kit.

- Measure CO<sub>2</sub> (0 – 10,000ppm)
- Optional extra gases: measures O<sub>2</sub> (0 – 100%); dual temperature probe (0 – 50°C); humidity sensor (0 – 100%)
- Built-in gas moisture removal
- Quick verification of CO<sub>2</sub> levels for site audits
- Improved accuracy on CO<sub>2</sub> readings
- Large data storage and data download available for all your readings
- Accessories are available to enable you to make more of your unit by allowing further measuring options



Description	Part Number
G150 IAQ Analyser (CO <sub>2</sub> ) Complete with internal pump, battery charger & sample tube/filters	480442

## G210

Geotech's portable and lightweight G210 has been developed to measure piped hospital gas and leak detection in hospitals.

- Measures N<sub>2</sub>O (0 – 100%)
- Measures CO<sub>2</sub> (0 – 2,000ppm)
- Optional: O<sub>2</sub> (0 – 100%); CO (0 – 500ppm)
- Data storage with site and ID input
- User alarms
- Easy user calibration
- Quick verification of gas quality – 4 Gases measured in one analyser
- Enables user to enter specific site and IDs for monitoring points
- Identifies contaminants CO and CO<sub>2</sub>



## LANDFILL/BIOGAS MONITORS

### GA5000

The GA5000 is an ATEX certified portable gas analyser for the landfill gas market. Easy to use and calibrate, the GA5000 benefits from our market leading reliability and helping you to standardise monitoring routines, whilst supporting environmental legislation compliance. The GA5000 is built for the landfill gas market and measures critical gases within landfill applications % CH<sub>4</sub>, CO<sub>2</sub> and O<sub>2</sub>.

- Optional gases and ranges available including H<sub>2</sub>S (up to 10,000ppm), NH<sub>3</sub>, H<sub>2</sub> and CO (H<sub>2</sub> compensated)
- Measures accuracy of +/- 0.5% after calibration for CH<sub>4</sub> and CO<sub>2</sub> (+/- 1% O<sub>2</sub>)
- On board context sensitive help to guide you through every step of using the analyser
- Optional Gas Analyser Manager (GAM) software for ID set-up and data download
- Increased functionality with a range of accessories available including
- ATEX certified anemometer



Description	Part Number
GA5000 (CH <sub>4</sub> , CO <sub>2</sub> , O <sub>2</sub> , CO, H <sub>2</sub> S with H <sub>2</sub> compensated CO sensor) Complete with sample tube kit with in line water trap, charger & hard carry case	481337
Temp probe for 5000 Series	481497
Anemometer for 5000 Series	481496
GAM Software for 5000 Series complete with USB lead	481085
Soft carry case for 5000 Series	481638

## BIOGAS 5000

Easy to use, calibrate and configure, the BIOGAS 5000 enables you to collect consistent data for improved analysis and accurate reporting, whilst helping to check the digester process is running efficiently.

The BIOGAS 5000 has a robust, high quality design fit for the most hazardous anaerobic digestion sites.

- Reliably measures gas levels of CH<sub>4</sub> (0 – 100%); CO<sub>2</sub> (0 – 100%); O<sub>2</sub> (0 – 25%)
- Optional measurable gases include H<sub>2</sub> (0 – 1,000ppm); NH<sub>3</sub> (0 – 1,000ppm); H<sub>2</sub>S (0 – 50, 200, 500, 1,000, 5,000 or 10,000ppm) Optional Gas Analyser Manager (GAM) software for ID set-up and data download
- No need for self certification of anemometer: certified analyser validates results
- Geotech configures the BIOGAS 5000 specifically for your company's unique specification
- Supports the efficiency of your digestion process: provides you with insight so you can change gas levels for optimum performance
- Provides peace of mind that your desulphurisation process is working correctly by measuring pre and post desulphurisation levels



Description	Part Number
Biogas 5000 landfill gas analyser measures CH <sub>4</sub> /CO <sub>2</sub> /O <sub>2</sub> & H <sub>2</sub> S Complete with sample tube kit with in line water trap, charger & hard carry case	482021
Temp probe for 5000 Series	481497
Anemometer for 5000 Series	481496
GAM Software for 5000 Series complete with USB lead	481085
Soft carry case for 5000 Series	481638

## GEM5000

The GEM5000 is an easy to use portable gas analyser designed to aid balancing the gas field, maximise power output and ultimately maximise revenue from CH<sub>4</sub> extraction.

- Measures % CH<sub>4</sub>, CO<sub>2</sub> and O<sub>2</sub>
- Choice of additional gases including H<sub>2</sub>S to 10,000ppm and H<sub>2</sub> compensated CO
- CH<sub>4</sub> and CO<sub>2</sub> accuracy +/- 0.5% after calibration
- Modular and upgradeable
- Records static and differential pressure
- Aids balancing of gas field
- Maximise power output from site/maximise revenue from CH<sub>4</sub>
- External gas flow devices: anemometer (ATEX)/ pitot tubes
- Optional Gas Analyser Manager (GAM) software for ID set-up and data download
- GPS/field navigator



Description	Part Number
LFM GEM5000 portable gas extraction monitor, ATEX certified, 5 gas (CH <sub>4</sub> , CO <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> S, H <sub>2</sub> compensated CO cell) Complete with sample tube kit with in line water trap, charger & hard carry case	481408
Temp probe for 5000 Series	481497
Anemometer for 5000 Series	481496
GAM Software for 5000 Series complete with USB lead	481085
Soft carry case for 5000 Series	481638

## FIXED GAS DETECTION

### Manning AirScan iR Sensor/Transmitter

**Honeywell**

The Manning AirScan iR infrared sensor is an affordable microprocessor based sensor that is selective to refrigerants and, because it's stabilised design platform, will provide years of service and will maintain the highest level of accuracy and reliability. This highly versatile sensor features SensorCheck, a unique technology that continuously monitors sensor performance that enables it to provide worry free performance throughout the life of the sensor.

- Rapid response to refrigerants including R-404a, R-22, R-507 or R-134a
- Internal monitoring of 4/20mA loop circuitry continuously
- 24VDC regulated
- Standard range of 0 – 3,000ppm, can be rescaled for lower trip points
- Provides a linear output of 4/20mA as a function of refrigerant concentration
- Simple, real time calibration eliminates maintenance downtime
- Automatically adapts to fluctuating temperatures
- Unique internal reference channel compensates for dust particles, source degradation, humidity and temperature fluctuation, food odours and chemical cleaners
- Allows for operation down to -60°F and in condensing humidity environments or during wash down
- Tests the sensor every 24hrs for electrical viability



### MGS-250

Bacharach's MGS-250 Infrared Refrigerant gas detector is the leader in performance and flexibility. It can be configured as either a broadband sensor used for gross leak detection, or as a gas specific version that's pre-calibrated and characterized for precision response to individual refrigerants. The MGS-250 is the economical solution for detecting refrigerants without the limitations posed by solid state sensor technologies.

- Long life, proprietary infrared (NDIR) sensor
- Detects CFCs, HFCs, HCFCs and new HFO refrigerants
- No cross interference to other gases, humidity or temperature
- Modbus RTU interface, analog output, BAS/BMS system connectivity, 1 Alarm relay and SPDT
- Set all parameters and outputs without opening the unit
- Power supply 24VDC or 24VAC
- Measuring range 0 – 3,500ppm
- Temperature -22 to +104°F



Description	Part Number
MGS 250 Infrared halocarbon detector, broadband version	482723
MGS 250 Infrared R-404a detector	482806
MGS-250 Infrared R-134a detector	483173
MGS-250 Infrared R-410a detector	483854
MGS-250 Splashguard protection	482724

## INDUSTRIAL SENSORS & TRANSMITTERS

### Sensepoint XCD

**Honeywell**

Transmitter provides comprehensive monitoring of combustible, toxic and oxygen gas hazards in potentially explosive atmospheres – Indoors and outdoors.

- All in one gas monitoring solution, three relay outputs, analogue output
- Proven Surecell electrochemical sensors (wide range)
- IR & Catalytic available for flammable gases and CO<sub>2</sub>
- Input voltage range: 16 – 32VDC
- Optional communication RS485, MODBUS RTU
- Certified temperature range: 40° to +149°F (-40° to +65°C)



Description	Part Number
Sensepoint XCD catalytic LEL	480476
Sensepoint XCD IR CH <sub>4</sub> LEL	480479
Sensepoint XCD oxygen	480482
Sensepoint XCD hydrogen sulphide	480477
Sensepoint XCD carbon monoxide	481458
Sensepoint XCD IR CO <sub>2</sub> 0 – 2%	480480
Sensepoint XCD IR CO <sub>2</sub> 0 – 5%	482125

### Sensepoint XCD RFD

**Honeywell**

Sensepoint XCD Remote Toxic Detector (RTD) has been specifically designed for use with remotely mounted flammable gas sensors. This configuration is ideal for applications where the sensor is required to be mounted remotely from the transmitter in areas where temperatures are well above ambient (up to 150°C/302°F), or that are difficult to access. The transmitter can be mounted at a suitable location away from this area where it is easy to access, view its display and interact with via the user interface.

- Accurate detection with fast response
- Mount sensor up to 30m from transmitter
- Compatible with Honeywell Analytics' proven Sensepoint Flammable sensors
- Easy to read tri-colour backlit display
- Two programmable alarm relays, one programmable fault relay
- Input voltage range: 16 – 32VDC (24VDC nominal)
- Outputs: MODBUS RS485, 4 – 20mA
- Mounting: Pole or wall



Description	Part Number
Sensepoint XCD RFD	480484

**apctechnsafe**  
BY NZ SAFETY BLACKWOODS

## MOBILE CALIBRATION SERVICE

Gas Detection solutions, when and where you need them.

- Calibration
- Commissioning
- Instrumentation Servicing



**CONTACT APC TECHSAFE ON 0800 832 732 FOR MORE INFORMATION.**

## Sensepoint XCD RTD

**Honeywell**

Sensepoint XCD Remote Toxic Detector (RTD) has been specifically designed for use with locally or remotely mounted mA gas sensors. It provides proven, reliable toxic and oxygen gas detection, an easy to read status display and a common platform.

- Common transmitter platform cuts stocking and procurement costs
- Obtain maximum coverage in areas not easily accessible
- Mount sensor up to 30m from transmitter
- Compatible with Honeywell Analytics' proven Sensepoint toxic and oxygen gas sensors
- Prevent false alarms with auto-inhibit during maintenance
- Two programmable alarm relays, one programmable fault relay
- Input voltage range: 16 – 32VDC (24VDC nominal)
- Outputs: MODBUS RS485, 4 – 20mA
- Certified temperature range: -40° to +65°C (40° to 149°F)



Description	Part Number
Sensepoint XCD RTD	480486

## Series 3000 MkII and MkIII Transmitters with Sensor

**Honeywell**

Two wire loop powered toxic and oxygen gas detector for use in potentially explosive atmospheres – Explosion proof and intrinsically safe versions.

- Wide range of toxic sensors available
- Reduced commissioning costs
- Sensor recognition feature auto configures transmitter
- Non-intrusive configuration
- Plug and play factory configured sensors
- Reduced maintenance costs
- IS sensor connection permits hot swap, reducing downtime
- Reliable detection
- Reduced installation and commissioning costs
- Input voltage range 16 – 24VDC
- Operating humidity continuous 20 – 90% RH (non-condensing)
- Operating pressure 90 – 110kPa



Description	Part Number
Series 3000 MkII and MkIII transmitters with sensor	480496
Series 3000 H <sub>2</sub> S sensor	481177
Series 3000 O <sub>2</sub> sensor	481923
Series 3000 NH <sub>3</sub> sensor	481617

## XNX Universal Transmitter

**Honeywell**

A universal transmitter for toxic, oxygen and combustible gas detection compatible with all Honeywell gas sensing technologies and offers a modular choice of inputs and outputs (saving customers time and money).

- Flammable gas detection 0 – 100% LFL/LEL
- Flexible operation options
- Three versions – Catalytic bead and IR cell, electrochemical cell and IR (point and open path) gas detection
- Minimal training required
- Material: LM25 aluminium, painted (SS316 painted optional)
- Temperature: sensor dependent -40° to +65°C (+40° to +150°F)
- Humidity: 20 – 90% RH (non-condensing)



Description	Part Number
XNX Transmitter for optima/excel, HART® with alarm and fault relay outputs, epoxy coated alloy	481842
XNX Transmitter for optima/excel, HART®, no relays, epoxy coated alloy	482729
XNX Transmitter for optima/excel, HART® interface port, no relays, epoxy coated stainless steel, SS316	480513

## Manning EC-FX-NH3

Now one tough sensor can work in three harsh environments. With the stability you can count on and low cost you want, the EC-FX-NH3 is the new gold standard in ammonia detection.

- Responds quickly to ammonia concentrations in low parts per million (ppm)
- Rugged construction for long term reliability
- ATMOS Technology for environmental flexibility
- Stainless steel enclosure with LCD options
- All new ammonia sensor with a proprietary electrolyte
- Three year warranty – Twice the warranty of most sensors

Description	Part Number
EC-FX-NH3 Refrigerant gas detector 0 – 1000ppm ATMOS, LCD, Nema 1 enclosure	482953

## Honeywell



## Searchpoint Optima Plus Point Infrared Gas Detector

Infrared point hydrocarbon gas detector certified for use in potentially explosive atmospheres.

- Over 100,000 units installed worldwide
- Improved reliability
- Fast speed of response
- Optional HART® over 4 – 20mA output
- Can detect a wide range of hydrocarbon gases including solvents
- Material: Stainless Steel Grade 316
- Response time: T50 < 3 Seconds, T90 < 4 Seconds (methane)
- Operational and certified: -40° to +65°C temperature range

Description	Part Number
Searchpoint Optima Plus, Methane calibration with dust barrier, weather housing, heat/deluge shade	482033
Searchpoint Optima Plus, Methane calibration with dust barrier, weather housing, heat/deluge shade, remote gassing cell	481198

## Honeywell



## Searchline Excel Open Path Infrared Gas Detector

Infrared open path flammable gas detector offering unrivalled performance and sensitivity.

- Fast speed of response provides earliest warning
- High sensitivity allows low alarm set points
- Short range 5 – 40m, medium range 40 – 120m and long range 120 – 200m
- Available for methane, ethane, propane, butane, pentane, ethylene, propylene, butadiene
- Double band pass filters that fully compensate for all types of fog, rain and mist interference
- 100% Solar immune
- Correct operation under partial obscuration conditions
- High vibration resilience
- Radially symmetrical and bonded window heating delivers good low temperature performance
- Coaxial optics delivers best in class performance and resilience to partial obscuration
- Optional Modbus RS485 multi-drop output
- Response speed: T90 less than 3 seconds (under normal operating conditions)
- Range: 0 – 5m (LEL)
- Operating temperature: -40° to +65°C (-40° to +150°F)



## Honeywell

## Sensepoint XCL

Sensepoint XCL is a fixed gas detector that delivers the safety and compliance you expect – Plus the affordability and ease of use that you don't. It was designed especially for commercial and light industrial applications, delivering just the right amount of functionality to protect people on your premises and ensure compliance with regulations. Sensepoint XCL combines a simple yet robust mechanical housing with a gas detector app, so you can use everyday technology to set-up maintain your gas detector – Quickly get back to business. Sensepoint XCL is available as a flammable gas detector for the detection of potentially explosive gases, or as a toxic gas detector for the detection of a range of toxic gas hazards commonly found in commercial premises.

- Manage installation, commissioning and maintenance from the gas detector app on your smartphone
- Aesthetic design blends in to the environment
- Simple, robust housing with our easiest ever installation and maintenance
- Integral gassing port for hard to reach locations
- Compatible with Touchpoint Plus and other industry standard controllers
- mA loop or Modbus RTU output with optional relays
- Multi-colour LED status indicator
- Operating temperature -20° to +50°C, ingress protection IP-65
- Choice of toxic, oxygen or flammable sensors



Description	Part Number
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, without relay, CAT 0 – 100%LEL	483152
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, without relay, O <sub>2</sub> 0 – 25%vol	483266
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, without relay, CO 300ppm	483153
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, without relay, H <sub>2</sub> S 100ppm	483855
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, with relay, CAT 0 – 100%LEL	483858
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, with relay, O <sub>2</sub> 0 – 25%vol	483859
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, with relay, CO 300ppm	483478
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, with relay, H <sub>2</sub> S 100ppm	483860
Sensepoint XCL with Bluetooth®, charcoal, 4 – 20mA, with relay, CO <sub>2</sub> 5.0%vol	483862

## Sensepoint XRL

Sensepoint XRL is a fixed point gas leak detector that is designed to meet the needs of commercial and light industrial applications. Honeywell innovation enables customers to pair the gas detector with their smartphone, and then use an app to perform many tasks related to installation, commissioning and maintenance.

- Read gas concentrations in real time
- Flammable, toxic and oxygen versions available
- Yellow or black housings available
- Reconfigure settings easily using the app
- Check unit histories using the app
- Duct mount kit for round or flat profile ducts
- mA loop analog output or Modbus RTU output
- 18 – 32VDC

## Honeywell



Description	Part Number
Sensepoint XRL, Bluetooth®, yellow, 4 – 20mA, O <sub>2</sub> 25% vol	483863
Sensepoint XRL, Bluetooth®, yellow, 4 – 20mA, CO 300ppm	483864
Sensepoint XRL, Bluetooth®, yellow, 4 – 20mA, H <sub>2</sub> S 100ppm	483371
Sensepoint XRL, Bluetooth®, yellow, 4 – 20mA, H <sub>2</sub> 1000ppm	483865
Sensepoint XRL, Bluetooth®, yellow, 4 – 20mA, NO <sub>2</sub> 20ppm	483866
Sensepoint XRL, Bluetooth®, yellow, 4 – 20mA, CH <sub>4</sub> 100% LEL	483265

## OELD – Optima Excel Local Display

The Optima Excel Local Display (OELD) is a smart junction box for the Searchpoint Optima Plus and Searchline Excel infrared detectors for flammable hydrocarbons. The OELD includes an LCD screen for gas information, a 'traffic light' indicator for at a glance detector status and Bluetooth® connectivity for simplified, non-intrusive maintenance. Simply pair the OELD with our intrinsically safe, ruggedised smartphone; then use the OELD smartphone app to interact with the gas detector from up to 10m (30ft) away. For maximum flexibility, the gas detector can be mounted either directly or remotely to OELD to suit any situation.

- Simplified maintenance with familiar smartphone technology
- Non-intrusive interaction to reduce time and safety risk
- Easy access to hard to reach detectors
- Know before you go: pre-empt maintenance issues
- Bright 'traffic light' indicator for safety awareness
- Easier to locate a unit in fault/warning
- Real time gas readings
- Marine grade aluminium alloy or Stainless Steel Grade 316
- 5 x M25
- ATEX/IECEx version
- 18 – 32VDC



Description	Part Number
OELD Smart junction box, display, Ex d, aluminium, M25	483867
OELD Smart junction box, display, Ex d, 316SST, M25	483868

## Midas

Pumped single point monitor bringing new visibility, reliability and ease of use to gas detection in semiconductor processing and industrial manufacturing.

- Detects more than 35 Gases error free
- Improved visibility and ease of use
- Easy installation
- Flow Rate: 500mL/min
- Transport time: 2 – 30secs maximum
- Sample line tubing: 0.125" ID x 0.25" OD



Description	Part Number
MIDAS 2nd generation transmitter black	482395
MIDAS Oxygen sensor cartridge, 2 years, 0 – 25%vol	482641
MIDAS Oxygen sensor cartridge, 3 years, 0 – 25%vol	483789
MIDAS Carbon Monoxide sensor cartridge, 2 years, 0 – 100ppm	482617
MIDAS Inlet tubing FEP teflon, 100ft	482618

## Honeywell

## SPM Flex

Improve safety and productivity with the most flexible, user friendly tape based gas detector for low level (ppb) toxics. Extreme accuracy for extreme gases. The SPM Flex, the next evolution of our SPM and TLD gas detectors with Chemcassette tape technology, is capable of working as both a fixed and a portable unit. The monitor detects the ultra sensitive gases inherent in your operations.

- Fixed and portable versions available
- ppB Level detection
- Visible at a distance with crisp, colourful LED bar on top of unit
- Remote viewing through the web
- Stands up to harsh conditions
- Weight: 4.1kg
- No ChemKeys required
- Intuitive LCD menu

## Honeywell



Description	Part Number
SPM Flex tape based detector, fixed model Complete with charger & wall mount bracket	482369
SPM Flex tape based detector, portable model Complete with charger & carry handle, shoulder strap	482416

## INDUSTRIAL GAS DETECTION CONTROLLERS

### Touchpoint Plus Controller

## Honeywell

Touchpoint Plus is an easily configurable, wall mounted control system that supports up to 16 Channels of gas detection. Its intuitive user interface and modular approach enables you to take control and configure what you need for a wide range of applications.

- Quick and easy setup and use
- Intuitive touchscreen user interface
- 'Traffic light' style status at a glance
- Ergonomic industrial design
- Suited to a wide range of industries
- 8 Channels of gas detection (16 with expansion unit)
- Accepts 2 or 3 Wire mA or mV inputs
- Touchscreen LCD
- Built-in powered alarm outputs
- Optional Modbus TCP/IP or RTU output



### Touchpoint Pro Controller

## Honeywell

Honeywell's Touchpoint Pro makes gas control system design, installation, configuration and operation simple. Intuitive and flexible, Touchpoint Pro offers optimum compliance, safety and productivity for sites.

- Web server ensures 24/7 System status visibility for constant safety
- Flexible system architecture to meet specific site needs
- Easily accessible system status that can be seen at a glance
- Up to 64 Channels of detection and 128 Output channels
- Digital and analogue inputs available
- Multiple mounting possibilities
- Touch screen user interface



## INDUSTRIAL FLAME DETECTORS

### Fire Sentry FS24X Flame Detector **Honeywell**

Sophisticated software algorithms and dual microprocessors ensure that the Fire Sentry FS24X has the highest fire detection performance combined with optimal false alarm rejection.

- Detects hydrocarbon and non-hydrocarbon fuel fires in all environmental conditions
- User selection outputs
- Optimal false alarm rejection
- Sensitivity: very high, high, medium and low – Switch selectable
- Operating voltage: 24VDC nominal (18 – 32VDC) – Regulated
- Humidity range: 5 – 98% relative humidity, non-condensing



### Fire Sentry FS20X Flame Detector **Honeywell**

Part of the FSX family of electro-optical flame detectors, the FS20X represents a quantum leap in integrating infrared and ultraviolet sensing technologies.

- Detects hydrocarbon and non-hydrocarbon fuel fires in all environmental conditions
- Range greater than 200ft to 1sq.ft heptane fire
- Arc welding immunity
- Field of view: 90° full 100% core of vision, ± 45° from on axis
- Operating voltage: 24VDC nominal (18 – 32VDC) – regulated
- Sensitivity: Very high, high, medium and low – Switch selectable



### Fire Sentry FS System 10 & FS10-R

**Honeywell**

A high speed microprocessor based fire detection and process control system specially designed for liquid and powder coating applications, the Fire Sentry (FS) System 10 quickly detects the presence of a flame, reacts by initiating a shutdown of the electrostatic finishing process in a matter of milliseconds; and effectively interrupts the fire before residues and wet paint films can ignite.

- Multi-spectral digital electro-optical infrared fire detector
- Meets requirements of NFPA 33
- Unique two stage alert and fire alarm response
- Immune to false alarms caused by arcs or corona discharges
- Built-in automatic through the lens self test
- Not sensitive to background radiant energy sources such as paint heaters



### FSL100 Flame Detectors

**Honeywell**

Honeywell's FSL100 range of light industrial/commercial flame detectors enables simple coverage of fire hazard areas across many fire hazard applications. Installation, set-up and operation are simple. Wide solid area coverage and fast speed of response optimise safety. With built-in automatic test and test lamps available to cover all models, reliability is ensured.

- UV, UV/IR and IR3 Flame Detectors to cover a wide range of applications
- Robust, simple to install and set-up; wide angle and fast speed of response
- Automatic test and test lamps for simple check and maintenance
- FSL100 Flame Detectors – UV, UVIR and IR3 for light industrial applications
- GRP Housing, available in red or white with optional swivel mount
- 12 – 14VDC, 25mA nominal operation
- 4 – 20mA and relay outputs



## TECHNICAL TIP

### PREVENT CATASTROPHIC FIRES WITH CONTINUOUS MONITORING

The range of potential flammable hazards is expansive and evolving. So it's smart to be ready for any situation with flame detectors that work in a range of harsh, manufacturing environments.

A diverse variety of applications and processes increasingly involve the storage, use and manufacture of flammable substances. Inevitably, occasional escapes of such substances occur, whether gaseous or liquid, which creates a potential hazard to the industrial plants, their employees and the local environment. Many other substances are less flammable but will nevertheless support combustion once it has started. Worldwide incidents, involving the destructive nature of fires creating loss of life, damage to property and the environment, are a constant reminder of this problem.

In most industries, one of the key aspects of any safety plan for reducing risks to personnel and plant is the use of early warning devices such as gas and flame detectors. These can help to provide more time in which to take remedial or protective action. They can also be used as part of a total integrated monitoring and safety system which may include various other safety aspects as part of a mitigation action and emergency process shutdown.



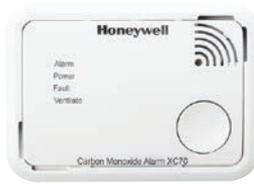
## COMMERCIAL & DOMESTIC MONITORS

### Battery Powered Carbon Monoxide Alarms

The XC70 is the perfect monitoring solution for consumers or professionals dealing with CO protection on behalf of tenants and customers.

- Approved to EN 50291.1:2010 and EN 5029.2:2010 by BSI
- Honeywell's proven life sensor technology
- Seven year warranty
- Works with 484020 Wireless Module XW100

**Honeywell**



Description	Part Number
CO Alarm XC70 (ENAP)	483869

### Battery Powered Smoke and Heat Alarms

X-Series range of smoke and heat alarms has been engineered for ultimate performance and reliability. Featuring a ten year life span and warranty, tamper proof, discrete low profile design and easy installation. Along with optional wireless interconnectivity they are ideal for professionals dealing with residential fire detection.

Works with 484020 Wireless Module XW100.

**Honeywell**



Description	Part Number
XH100 Battery thermal heat alarm	483875
XS100 Battery optical smoke alarm	483876
XS100T Battery optical/ thermal smoke alarm	483877

### Hard Wired Carbon Monoxide Alarms

The SF340 Series is a range of reliable, hard wired carbon monoxide alarms with battery backup. They are designed for use in all domestic and light commercial environments.

Every unit in the SF340 series utilises the advanced ECO-Sure electrochemical cell sensing technology and comes complete with a full 10 Year guarantee on the main unit and a full five year guarantee on each sensor module. Every unit in the SF340 series offers up to five years battery backup allowing for continuous protection – Even in the event of power loss. This also allows the unit to be operational whilst waiting for permanent installation.

**Honeywell**



Description	Part Number
SF340F 230VAC Interconnect	483496
SF340F 230VAC Relay interconnect	483873
SF340J 12/24VDC Relay interconnect	483874

### Wireless Module for X-Series Alarms

Optimised for use by professionals creating a networked safety solution in residential properties. Offering simple installation and setup, they have been designed to meet the needs of housing associations and high demanding private households.

**Honeywell**



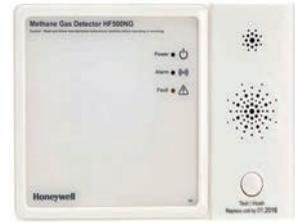
Description	Part Number
Wireless Module XW100	484020

### HF500

**Honeywell**

The HF500 alarms are designed to deliver a complete solution for the detection of Liquefied Petroleum Gas (LPG) and natural gas/methane. Optimised for use by professionals dealing with flammable leak detection, HF500 is ideally suited for use in private or social housing as well as other forms of residential care. The HF500 can either be used as a stand alone device or it can be directly wired to a solenoid valve or control panel/alarm system.

- Catalytic flammable gas sensor
- Alarms at 10% LEL – Detects leaks long before the gas reaches unsafe levels
- Easy to install, easy to access wiring terminal
- Loud 85dB alarm



Description	Part Number
HF500 Residential gas monitor LPG	482732
HF500 Residential gas monitor natural gas	482954

### EzSense Flammable Gas Leak Detector

**Honeywell**

EzSense is the most convenient way to detect Natural Gas, Propane, Butane, LPG and LNG. It is compact and light on the pocket in more ways than one.

- Catalytic bead sensor requiring no calibration – Simply point and click
- Green LED: Power on – Gasless than 500ppm
- Yellow LED: Low alarm – Over 500ppm
- Red LED: High alarm – Over 2,000ppm
- Suitable for identifying the source of leaks in pipes, fittings, valves, gas storage tank/cylinders and hot water heaters



Description	Part Number
EzSense flammable gas wand	482104

## PRODUCT INSIGHT

### X-SERIES ALARM SCAN APP

Honeywell's X-Series alarm scan app enables users of any X-Series alarm to download data from the alarm to a smart device, allowing on the spot incident investigation and effortless report generation.



Everything you need to know about what's going on with your CO, smoke and heat alarms is one tap away. The Honeywell X-Series Alarm Scan App allows you to transfer logged Alarm and Fault events, as well as the general device status from all enabled X-Series Alarms to your iOS or Android smart device.

To download the app visit <https://www.homesafety.honeywell.com/alarm+scan#download-app>



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- Lockout tagout
- Elevating work platforms (EWP)
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- Hazardous substances
- Health and safety

### HEIGHT SAFETY



### CONFINED SPACE



### SPILL RESPONSE



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