Honeywell BW™ Ultra: a Portable Five-Gas Detector Designed *Specifically* for Use in a Confined Space

At Honeywell, we always put your safety where it should be – first. With Honeywell BW™ Ultra, our portable five-gas detector, you will be able to do the same for your workers. Designed specifically for sampling and monitoring confined spaces, before and after entry, Honeywell BW™ Ultra offers enhanced sensor technology, visibility on gas readings, comfort, and connectivity. This makes it more reliable and provides an intuitive user experience, helping to prevent a potential gas safety incident.

Do you need to sample or monitor a confined space for dangerous gases?

The Honeywell BW™ Ultra pumped detector is made specifically to help you to:

- Clear a confined space for entry and continually monitor it while workers are inside
- Regularly sample a confined space as part of your permit requirements
- Protect your workers and operations

The Honeywell BW™ Ultra is a more reliable, user-friendly way to prevent a gas safety incident. It features:

- Larger dot matrix LCD screen for easy viewing
- Enhanced situational awareness for the hole watch
- The new *1-Series* sensor for enhanced reliability
- Honeywell TouchConnect™ Technology for quicker instrument management
- Remote monitoring for an additional layer of protection

With an internal pump that's always running, the Honeywell BW™ Ultra pulls air through a sampling hose and assesses it for gas hazards, giving you an easy-to-read picture of safety.

Five-gas flexibility for many kinds of confined spaces.

If you face gas hazards in your industry, the five-gas Honeywell BW™ Ultra can be configured to detect them. In addition to the standard four gases that you're required to monitor in a confined space – O_2, H_2S, CO, and LEL – you can choose a fifth sensor depending on your operation.

Some common examples:

GAS	INDUSTRY
SO_2	Oil & gas, pulp & paper
NH_3	Chemical plants, pool systems, pulp & paper mills, refrigeration, agriculture, wastewater treatment
CL_2	Pool systems, pulp & paper, water/wastewater treatment
VOCs	Multiple industries that involve solvents, paints and other volatile organic compounds for equipment maintenance
CO_2	Wineries & breweries
NO_2	Construction & welding
HCN	Perishable food shipping

Smart Solution for Inert Atmospheres

The patented Intelligent Inert mode on the Honeywell BW Ultra allows users to safely and simply measure low levels of Oxygen (Inert Atmospheres), by automatically adjusting O2 alarm levels from descending alarms (needed for monitoring in normal environments) to ascending alarms (needed for monitoring in inert environments).

A Versatile Detector that Can go Beyond Confined Spaces

The Honeywell BW™ Ultra is designed for confined-space sampling and monitoring, but it can also double as a day-to-day detector.

Do you have an employee working around chlorine gas at a pumping station? Is one of your staff members using volatile organic compounds for a cleaning task?

Just remove the sampling hose from the Honeywell BW™ Ultra and make it part of the employee's personal protective equipment – thus reducing your investment in additional detectors.

EC-FX-NH3
Sensor and Transmitter

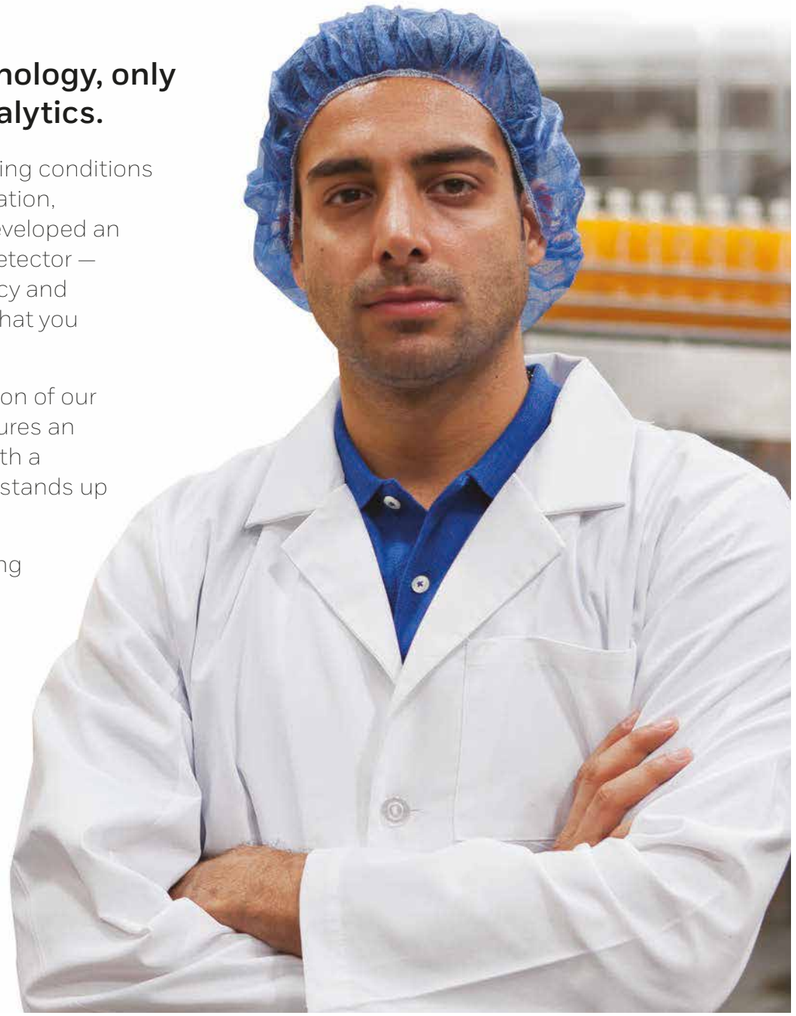
introducing a better, tougher longer-lasting sensor for industrial refrigeration

Breakthrough technology, only from Honeywell Analytics.

In response to the challenging conditions found in Industrial Refrigeration, Honeywell Analytics has developed an innovative new ammonia detector — delivering reliability, accuracy and long-lasting performance that you can't get anywhere else.

The EC-FX-NH3, an evolution of our Manning EC-F9-NH3, features an all-new ammonia sensor with a proprietary electrolyte that stands up to harsh environments.

So whether you're monitoring ammonia in blast freezers, cold storage or engine rooms, you can feel confident in the effectiveness of your gas detection system, helping you ensure life safety, prevent food spoilage and manage costs.



Three harsh environments. One tough sensor.

If you use ammonia as part of your refrigeration process, you face several challenges in protecting your plant from the danger and expense of ammonia leaks:

Cold Storage

From banana rooms to ice cream storage to food processing facilities, your cold storage areas are subject to extremely low temperatures — plus changes in humidity during cleaning and changes in pressure due to opening and closing doors. These fluctuations can cause some ammonia sensors to go into fault or false alarm. But since workers are often present in these areas, it's critical for ammonia sensors to stand up to tough conditions and accurately report gas at low levels.

Refrigerated Processing Areas

Some of the harshest environments in the food industry are spiral freezers and blast freezers, where rapid freezing often means drastic changes in temperature. This temperature shock — along with humidity shock from hot-water washdowns — can further challenge the resilience of your ammonia sensors.

Engine Rooms

Finally, the most likely places for a catastrophic ammonia leak are often your engine rooms, since they typically hold ammonia for use throughout your plant. But in the hot conditions of most engine rooms, the liquid electrolytes in standard ammonia sensor cells can dry out quickly, sometimes reducing the sensor's life span and causing false alarms.

Maintaining sensitivity and accuracy — even with rapid changes in temperature and humidity

EC-FX-NH3
Transmitter Specifications

General Specification	
Use	Electrochemical (diffusion) type sensor that works in conjunction with any Honeywell Analytics readout or alarm unit. Readouts have built in visual and audible alarms, as well as relay output for ventilation fan activation, central alarm tie-in, etc. The EC-FX-NH3 can provide a linear 4/20 mA signal input into PLC's.
Common Operation	
Operation	In units without the optional LCD module, a group of LEDs are installed to the PCB. In units with the optional LCD, two external push buttons, "Accept" and "Scroll" are used to navigate test functions and operating modes.
LCD display (optional)	2 line by 8 alpha numeric characters and continuous backlight
Output	Isolated 4/20 mA, 700 ohms max. at 24 VDC. Signal output reduces to 0.5 mA to indicate a fault condition. RS-485, Modbus RTU protocol
Accuracy	±5% full scale*
Environmental IP rating	Indoor use, IP 44 in accordance with EN60529:1992
Operational	
Humidity	5-100% RH (condensing)
Temperature	-50°F to +120°F (-45°C to +49°C), ATMOS™ equipped enviro-adaptive technology required for refrigerated areas or outdoors
Sensor Pressure Limit	0-10 PSIG
Storage	-40°F to +176°F (-40°C to +80°C), 20 to 80%RH (non condensing)
Common Module	
Communication	4/20 mA output: #18/3 shielded cable (Belden 8770 or equal), cable runs < 1,500 ft. RS-485: for communication cable, use 24 AWG twisted pair, shielded (Belden #9841 or equal), cable runs up to 2,000 ft. For power cable use 14 AWG (Belden #5100UE or equal), cable runs up to 1,000 feet.
Power Source	24 VDC, 0.5 amp max.
Repeatability	<10% of full scale
Sensor Specifications	
Sensor Pressure Limit	Atmospheric ±10%
Response Time (T90)	<30s for EC-FX-NH3-LR ranges 0-100 ppm, 0-200 ppm, 0-250 ppm and <75s for EC-FX-NH3-HR ranges 0-500 ppm, 0-1000 ppm
Ranges	0-100 ppm, 0-200 ppm, 0-250 ppm , 0-500 ppm, 0-1000 ppm
Sensor Warranty	Three years from date of shipment
Sensor Viability Test	SensorCheck™, an internal microprocessor determines the sensor's electrical viability every 24 hours. If the viability test fails, a 0.5 mA signal will indicate a fault. An internal light will show if a sensor is dried up or disconnected.
Enclosure	NEMA 1, gasketed, #16 gauge steel (standard). Stainless steel, including modified enclosures for low temperatures, ventilation ducts, etc. are available.
Weight	3 lbs (1.36 kg)

* ±5% of full scale range at temperature of calibration. Contact HA for additional details.

CAUTION:
EC-FX is designed for operation in a wide range of environments and harsh conditions. However, it is important that exposure to high concentrations of solvent vapors is avoided, both during storage, fitting into instruments, and operation. EC-FX is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check). Failure to carry out such tests on a regular basis may jeopardize the safety of people and property.

EC-FX-NH3
Creating a New Standard

the gold standard
in ammonia detection
with innovation you can trust

Creating a new standard of reliability in ammonia gas detection

The EC-FX-NH3 is the next evolution of the proven Manning Systems technology, which was designed specifically for the extreme conditions of fruit and vegetable processing, bakeries, meat and poultry processing, beverage and bottling plants, and more.

In fact, our Manning EC-F9-NH3 and EC-F2-NH3 products have been the most-installed ammonia gas detectors in the refrigeration industry. Now, with the all-new EC-FX-NH3 from Honeywell Analytics, we're making that great technology even better.

isn't it time you upgraded
to the most innovative, longest-lasting technology for ammonia detection?

Contact Honeywell Analytics today at **1-888-955-2585** to upgrade your ammonia sensors, reduce your costs, and ensure the continued safety and productivity of your plant.

E³Point Toxic and Combustible Gas Monitor

Flexible Operation
- Comes in standalone, standalone with remote (dual gas mode) or network versions
- Connects to analog or digital systems
- Works with virtually any BAS including BACnet, Modbus
- Wall or duct mount
- Factory-calibrated cartridges

Cost Effective
- Saves energy through Demand Control Ventilation (DCV)
- Simplifies installation/maintenance through plug-n-play sensor
- Remote sensor option provides dual gas monitoring (standalone version only)
- Optimizes BAS, fire, ventilation and other security systems

Versatile Communications
- Works through BAS to improve fault diagnostics and collect data on gas concentation levels, sensor condition, etc.
- Couple with 301C to log data and daisy-chain up to 96 E³Point units

Advanced Sensing Technology
- Detects CO, NO_2, O_2, H_2, H_2S, CH_4, C_3H_8
- Advanced electrochemical (for toxic gases) and catalytic bead (for combustible gases) sensor performance
- Uses patented Reflex® and smart cartridge technologies

Range of Accessories
- Factory-calibrated replacement cartridges
- Power transformer
- Vandal-resistant steel wire detector guards
- Tamper-proof screws
- Horns and strobes

Electrical Certifications
- US (ANSI/UL 61010-1)
- Canada (CSA C22.2 No. 61010-1)

* pending - call your sales rep for information

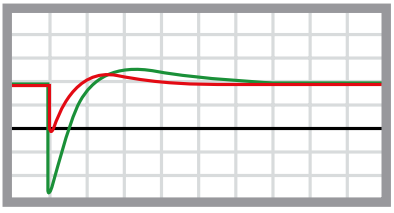
E³Point goes beyond protection to offer your building greater performance and productivity.

Ergonomic features built into E³Point include a hinged door for maintenance ease.

Plug-N-Play Ease
E³Point's plug-n-play sensor is factory calibrated and works out of the box. Upon installation, E³Point automatically configures for quick operation. You benefit from easier installation and maintenance, and greater adaptability to changing building and safety requirements.

Reflex® Keeps You Safer
Only Honeywell's patented Reflex® technology adds this extra degree of precision and diligence to sensor monitoring to make doubly sure you're safe. Reflex bounces electrical signals into the E³Point electrochemical sensor cell at regular intervals, a form of electronic bump testing and continuous monitoring of cell response.

Oscilloscope graph shows cell responding to Reflex pulse, indicating sensor condition.



GREEN shows optimal sensor condition (dynamic responsiveness to gas).

RED shows degraded sensor condition (indicating cell dry-out or failure).

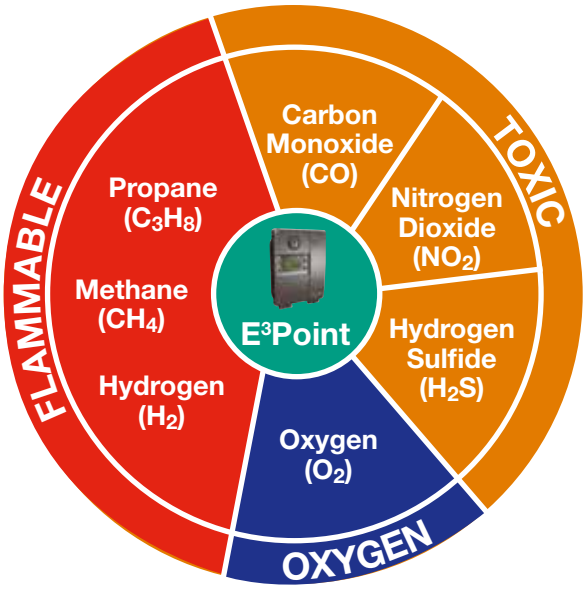
Efficient Operations + **Energy Savings** + **Economical Value** = **E³Point**

Smart sensor design, extreme temperature range, etc. optimize building performance

On-demand ventilation controls energy use

Reduces cost of installation, operation and maintenance

Dual-Gas Detection In Many Combinations



E³Point's standalone, dual-gas configuration monitors two gases simultaneously and cost effectively, in any of the following combinations: **toxic-toxic**, **toxic-combustible**, **oxygen-toxic**, or **oxygen-combustible**.

E³Point Expands the Range of Gas Detection to Serve Practically All Building Areas, Including Outbuildings

	Building Environment	Gases Present (Detected by E³Point)
	Parking Structure	CO, NO_2, C_3H_8
	Loading Dock	CO, NO_2, C_3H_8,H_2
	Transport Terminal	CO, NO_2, C_3H_8,CH_4
	Golf Cart Maintenance/ Battery Charging Area	CO, NO_2, CH_4, O_2, H_2
	Maintenance Garage	CO, NO_2, C_3H_8, O_2, H_2S, H_2
	Hospital/Ambulance Bay	CO, NO_2, C_3H_8, O_2
	Fire/Police Station	CO, NO_2, C_3H_8, O_2, H_2, H_2S
	Boiler Room	CO, CH_4, C_3H_8
	Battery Charging Rooms & Hydrogen Tanks	H_2
	Commercial Kitchen	C_3H_8, CO, CH_4
	Indoor Stadium/Arena	CH_4, CO, C_3H_8

Find out more
www.pyprepresentantes.com.mx

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P&P Representantes

Especially designed for commercial and light industrial applications, Sensepoint XCL delivers just the right amount of functionality to protect your life and your premises while ensuring compliance with safety regulations.
Inside its sturdy casing, Sensepoint XCL has your choice of sensor for the gas you need to detect.

Choose from oxygen, carbon monoxide, methane, propane and others, when ordering. If you need to monitor for more than one gas hazard you can use several Sensepoint XCL detectors in different parts of your operation. Whether you need to protect a garage or a boiler room, a food processing unit or a fuel station, it is safe to rely on Sensepoint XCL to detect dangerous gasses.

Applications

- Hospitals / MRI Rooms
- Food / Meat Processing Units
- Loading Bays
- Cosmetic Labs
- Bottling and Brewery Units
- High-Rise Condominium
- Boiler Rooms
- Commercial Kitchens
- Bus Stations
- Fuel Stations
- Parking Areas
- Garages

Gas Options

- Oxygen O_2
- Carbon Monoxide CO
- Hydrogen H_2
- Hydrogen Sulfide H_2S
- Nitrogen Dioxide NO_2
- Ammonia NH_3
- Combustible
- Carbon Dioxide CO_2

No Expertise Required

Easy Set-Up From Your Smartphone

Sensepoint XCL enables you to use everyday technology to set up and maintain your gas detector. You don't need to worry that a technical error could put compliance or safety at risk as the Sensepoint XCL smartphone application guides you every step of the way.

Blends Into Your Environment

Functional and Aesthetical

Sensepoint XCL works in conjunction with a controller to trigger the alarm responses that you choose , or use the optional relays for local, stand-alone control. Moreover, Sensepoint XCL was built with aesthetics in mind, so it blends in visually with your environment, from lobbies to retail operations.

Focus on Your Business – We'll Do the Rest.

Manage the Gas Detector from the Palm of your Hand

Thanks to Honeywell's use of Bluetooth technology, you can commission and maintain your Sensepoint XCL with ease. Just download the Honeywell Sensepoint App, register the detector with your smartphone and perform any task wirelessly — from adjusting set points to checking fault codes.

Fast Setup and Easy Calibration

Everything you need is in the box, organized for a quick, convenient startup. Use the simple drilling template and a standard toolkit for installation. Moreover, for calibration all it takes is our calibration app on your smartphone and a cylinder of calibration gas —no need for walkie-talkie communication with the control room. Create a profile for the detector, choose alarm set points, run test procedures, automatically generate a report, share data from your phone with other stakeholders, and store for easy access for auditing purposes.

Hassle-Free Maintenance

Sensepoint XCL smartphone-based experience significantly reduces the time you spend on gas detector maintenance. Need to replace a sensor? Simply remove one screw on the cover plate, and our app guides you on the rest. Getting a fault code? There is no need to find the manual to decipher it. Our application puts diagnostic information at your fingertips.

Reports on the Spot

Do you spend up to a whole day a week manually generating test certificates and distributing reports about gas detectors? Save valuable time with easy reporting on the smartphone app. Whether you need a maintenance report or safety audit for the detector, just select the correct report on the app and store it for easy recall.