



# ADVANCED LOW-LEVEL DETECTION

With a low cost of ownership

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Honeywell Vertex™ Edge

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**Honeywell**

# THE RELIABLE PERFORMANCE AND VERSATILITY OF HONEYWELL VERTEX™ — WITH A LOWER COST AND EASIER EXPERIENCE

Introducing Honeywell Vertex™ Edge. This cost-effective toxic gas monitoring system detects the ultrasensitive gases in your high-tech operations, helping you protect people and assets while reducing fab downtime.

The Honeywell Vertex™ Edge platform delivers what you love about the original Honeywell Vertex™ system — plus additional features to make safety more affordable and straightforward:

- **Flexible gas sampling**

Monitor up to 40 toxic gases — all from one modular system. Start with as few as eight sampling points for continuous gas detection, and add up to 72 sampling points as your requirements change. Place each point up to 400 feet (120 meters) away for ample reach.

- **The enhanced standard of accuracy and reliability**

Honeywell Vertex™ Edge uses authentic Chemcassette® technology, which shows the presence of gas quickly and definitively with a physical record — evidenced by a color change on chemically treated tape.

- **Lower cost of ownership**

Honeywell Vertex™ Edge offers longer-lasting Chemcassette tapes for ammonia, hydrides and mineral acids — with a replacement life of six months instead of one, three and four month tapes. That means double the usage at half the cost.

**6-MONTH TAPES!**  
See page 5 for more info

- **Easy use and maintenance**

From a user-friendly touchscreen to simplified communications to quick maintenance that reduces downtime, Honeywell Vertex™ Edge was engineered for ease.



# ADVANCED ENGINEERING FOR ACCURATE GAS DETECTION

As the pioneer of Chemcassette® gas analyzers, we engineered Honeywell Vertex™ Edge to deliver an enhanced level of reliability.

## A CLEARLY VISIBLE STAIN — FOR LOW-LEVEL DETECTION YOU CAN COUNT ON

With Honeywell Chemcassette® technology, the density of the stain on the tape is proportional to the concentration of the gas, so visibility of the stain is critical. That's why Honeywell Vertex™ Edge, unlike competing tape-based systems, generates a clear, easy-to-view stain that matches the severity of the gas release. With this precision, the optical scanners in Honeywell Vertex™ Edge can measure the stain accurately and trigger the right alarm.

### HONEYWELL VERTEX™ EDGE



### OTHER SYSTEMS



### All stains are not created equal

*Left:* Honeywell Vertex™ Edge generates dense stains to indicate a high concentration of phosphine gas, while another tape-based system produces a faint stain that can be difficult for scanners to read.

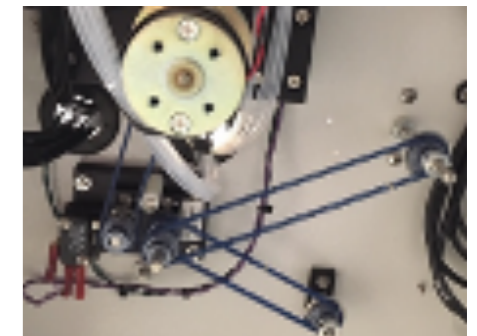
*Right:* Honeywell Vertex™ Edge generates softer stains for levels of germane gas that are not at extremely high concentrations but are still above the safety threshold; a competing system produces barely visible stains that are unlikely to trigger an alarm.

## STABLE GAS DETECTION THROUGHOUT THE LIFE OF EACH TAPE

Unlike devices using capstans and chains, Honeywell Vertex™ Edge uses a geared step motor and encoder to advance the Chemcassette® tape smoothly through the system. That means you can have confidence that the gas concentration is measured accurately and stably for the life of each tape. The smooth advance also prolongs the life of the tape, preventing unexpected shortages.



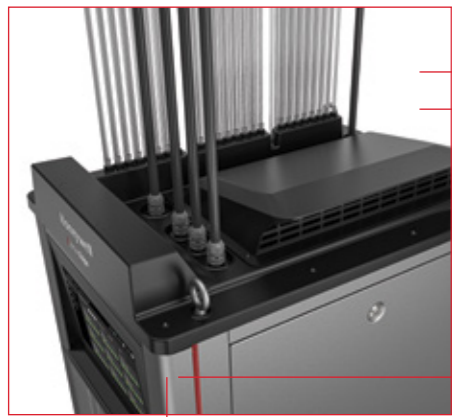
Step motor and encoder of Honeywell Vertex™ Edge



Capstan and chained motor

# STRAIGHTFORWARD MAINTENANCE TO REDUCE COSTLY DOWNTIME

When it comes to industrial design, Honeywell Vertex™ Edge is state of the art. It allows for easy access, fast maintenance and simplified integration with other control systems.



#### Easy tube management

Quickly identify sampling tubes for corresponding analyzers, so you can easily address a fault or install a new point.

#### Splash-proof cap

The system is protected from overhead liquid exposure

#### Simplified power and output

General DC power and Modbus output enable straightforward operation and integration with your control system.

#### No-screw service panels

A keylock and latch mean quick and easy access – no screwdriver needed.

#### Durable door and easy access

The steel door stands up to traffic, while offering a clear view of Chemcassette® analyzers.

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#### Easy pump replacement

A pullout tray makes it a snap.



# SMART INTUITIVE INTERFACE – NO TRAINING REQUIRED

Honeywell Vertex™ Edge provides enhanced performance with simple operation, so you can quickly evaluate gas readings, alarms, event logs, real-time trends and overall system status. And the user-friendly touchscreen with large icons makes navigation easy – even if you're wearing gloves.

#### HIGH VISIBILITY AND EASY INVESTIGATION OF ALARMS

- Clearly see alarms and identify relevant sampling points.
- Follow intuitive action buttons to investigate the cause.
- Sort events by analyzer and generate reports.

#### SMART REMINDERS

- See usage and due date for consumables.
- Create customizable reminders for easy maintenance to prevent unexpected faults.
- Clearly see elements to service.

#### COMING SOON:

Interface in Chinese and Korean languages



# DESIGNED FOR THE HAZARDOUS GASES IN YOUR OPERATIONS

Honeywell Vertex™ Edge can be tailored to meet the requirements of your facility. With up to nine Chemcassette® gas analyzers, each with eight points of detection, the system monitors virtually every gas used in semiconductor fabs – down to parts per billion (ppb). These gases include:

ACT935 Photoresist Stripper	Chlorine Trifluoride	Germane	Phenyl Trichlorosilane	Stibine
Ammonia	Cupra Select	Hexachlorodisilane	Phosgene	Sulfur Tetrafluoride
Arsenic Pentafluoride	Diborane	Hydrogen Bromide	Phosphine	Tertiarybutylarsine
Arsenic Trichloride	Dichlorosilane	Hydrogen Chloride	Phosphorous Oxychloride	Tertiarybutylphosine
Arsenic Trifluoride	Digermane	Hydrogen Cyanide	Phosphorous Pentachloride	Tetrachlorosilane
Arsine	Dimethylamine	Hydrogen Fluoride	Phosphorous Pentafluoride	Tetrakis (dimethylamino) titanium
Boron Tribromide	Dimethylsilane	Hydrogen Iodide	Phosphorous Tribromide	Tin Tetrachloride
Boron Trichloride	Digermane	Hydrogen Selenide	Phosphorous Trichloride	Titanium Tetrachloride
Boron Trifluoride	Dimethylamine	Hydrogen Sulfide	Phosphorous Trifluoride	Trichlorosilane
Carbonyl Fluoride	Dimethylsilane	n-Butylamine	Silane	Trimethylsilane
Chlorine	Disilane	Nitric Acid	Silicon Tetrachloride	Tungsten Hexafluoride
Chlorine Dioxide	Fluorine	Nitrogen Dioxide	Silicon Tetrafluoride	

New calibrations are continuously developed

## 6-month Chemcassette® tapes are available for these gases:

AMMONIA	HYDRIDES	MINERAL ACIDS
Ammonia	Arsine	Boron Trifluoride
DMA	Diborane	Hydrogen Bromide
TDMAT	Germane	Hydrogen Chloride
	Hydrogen Selenide	Hydrogen Fluoride
	Hydrogen Sulfide	
	Phosphine	
	Silane	

### CERTIFIED FOR INDUSTRIAL APPLICATIONS

Honeywell Vertex™ Edge meets international standards for power supply and electromagnetic gas detection, including:

- EN 61010 (UL, IEC)
- EN 50270
- FCC IC

# RELIABILITY AND DURABLE SUPPORT

Honeywell is a major gas detection provider with a division focused exclusively on semiconductor processing and other high-tech industries. That means we know your business – and how to protect it.

At Honeywell, we understand the value of your production, from the raw silicon wafer to the fabrication of a chip, and we know that just one false alarm can cost millions of dollars in lost productivity. That's why we engineered the Honeywell Vertex™ Edge for enhanced standard of accuracy and reliability, so you can feel confident that your toxic gas management system is helping to keep your people safe and your operations running.

Every day, Honeywell gas-detection technologies protect people and billions of dollars in assets at semiconductor fabs, research labs and other high-tech facilities throughout the world. And since we are the original manufacturer of the Vertex™ and Vertex™ Edge product lines we sell, we know how to support it. Honeywell has a worldwide network of service engineers who are knowledgeable and passionate about gas detection.

Honeywell Vertex™ Edge is part of a comprehensive ecosystem of gas-detection products and services for your operations, including fixed systems, portable and transportable gas detectors, controllers, software, systems integration and more. So when you demand enhanced standards of safety – along with deep knowledge of industrial technology and applications – Honeywell is here for you.



**For more information**

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FUTURE  
IS  
WHAT  
WE  
MAKE IT**

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