DETECTING IN THE THIRD ELEMENT
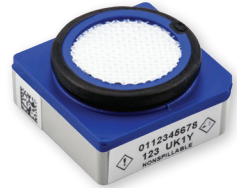# MODERN
GAS SENSING

Honeywell

DETECTING THE THIRD ELEMENT:
MODERN GAS SENSING

> With more than 45 years' experience in gas sensing innovation, we have over 300 electrochemical, catalytic bead and optical sensing products detecting 28 different gases. We offer the widest range of gas sensors in the market today. Our sensors are available in variety of formats to satisfy the precise requirements of the specific applications.

ELECTROCHEMICAL TOXIC & OXYGEN SENSORS

Amperometric fuel cell technology utilizing liquid or solid electrolyte and catalyst electrodes.

1SERIES

Compact, analog, low profile devices that can sense carbon monoxide, oxygen, hydrogen sulfide, sulfur dioxide, and combustible gases that enable smaller instruments. Designed to meet industry performance standards. Enhanced performance over an extended environmental range.

FEATURES

- Planar design and unique turret seal allows for flatter gas detection.
- Compact, analogue sensor
- Enhanced performance over an extended environmental range.
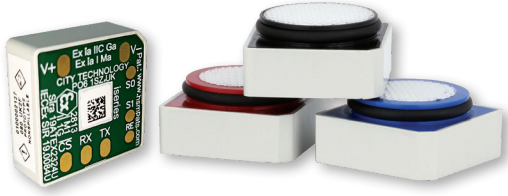- RoHS compliant

HONEYWELL 1SERIES ANALOG GAS SENSORS
View our offering by clicking here.

INDUSTRIAL SENSING
iSERIES

The iseries digital gas sensor is a 'plug and play' compact low-profile sensor. These sensors have an extended operating life of five years along with extended temperature and humidity range. Designed to meet global performance standards and RoHS compliant.

FEATURES

- Digital interface
- Pre-calibrated
- Predictive calibration
- End-of-life indication
- Fault Indication
- OEM lock
- Five-year life
- Low profile
- Extended temperature and relative humidity

BENEFITS

- Interchangeable: All intelligent sensors have the same dimensions, communication protocol and bias voltage
- Reduces downtime by using intelligent features
- Early warning for sensor malfunction
- Five-year life: long lifespan
- Multiple application possibilities

APPLICATIONS

- Processing plants
- Area and personal protection
- Clean and wastewater treatment

HONEYWELL iSERIES DIGITAL GAS SENSORS
View our offering by clicking here.

ELECTROCHEMICAL TOXIC & OXYGEN SENSORS

Amperometric fuel cell technology utilizing liquid or solid electrolyte and catalyst electrodes.

3 SERIES

The 3 Series range is the Honeywell original gas sensor range. A wide variety of sensors are available in this format and can be supplied with 4 mA to 20 mA and mV transmitter boards.

FEATURES

- Industry standard for portable industrial safety gas detection
- Meets toxic and oxygen standards
- One- to five-year life, stable, accurate and selective
- 4oXLL (emission applications) 7-year life
- Comprehensive range of gases

4 SERIES

Honeywell 4 Series includes sensors which detect oxygen and toxic gases and fully certified pellistors for combustible gas detection.

FEATURES

- Large robust toxic sensor design
- Comprehensive range for safety and emissions applications
- Suitable for fixed-type detection
- Robust and durable to environmental demands

HONEYWELL 3 SERIES GAS SENSORS
View our offering by clicking here.

HONEYWELL 4 SERIES GAS SENSORS
View our offering by clicking here.

ELECTROCHEMICAL TOXIC & OXYGEN SENSORS

Amperometric fuel cell technology utilizing liquid or solid electrolyte and catalyst electrodes.

5 SERIES

Honeywell 5 Series premium gas sensors has been designed to ensure optimal performance within the harsh environments of flue gas analysers and combustion efficiency monitors. Sensors are available for oxygen, carbon monoxide, nitric oxide, nitrogen dioxide and sulphur dioxide, along with a hydrogen–compensated carbon monoxide sensor.

FEATURES

• High capacity filters and electrodes designed for use in emissions applications
• Linear across high detection range
• Fast response and recovery
• Durable to harsh gas & exposure needs

7 SERIES

Honeywell 7-Series range is suited to general gas detection applications including oxygen and toxic gases. Sensors are suitable for use in portable or fixed gas detectors and medical gas applications.

FEATURES

• Compact sensors designed for portable and transportable applications
• Used in wide range of general gas detection applications
• Extensive toxic and oxygen range of gases

HONEYWELL 5 SERIES GAS SENSORS
View our offering by clicking here.

HONEYWELL 7 SERIES GAS SENSORS
View our offering by clicking here.

INDUSTRIAL SENSING AQ3 SERIES

Growing global awareness has increased the focus on air quality in regard to current contaminant levels, as well as how to better manage air quality.

Reliable gas sensors with a variety of gases detected: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2) mainly usable for ambient environmental monitoring having a high correlation with air monitoring stations.

FEATURES

- High correlation with national optical stations
- Easy to use module and algorithm for AAQ mini station OEMs

BENEFITS

- Best in our product line for SO_2 detection
  - High resolution
  - Low detection limitation
  - High correlation
- High temperature and cross performance 1:1 compensation

ENVIRONMENTAL SENSING AQ7 SERIES

The demand for lower-cost, easily transportable solutions for environmental applications has grown substantially as public awareness and demand for healthier breathing conditions has increased, leading to a growing need for monitoring air quality across cities.
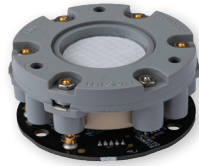
AQ7 Series gas sensor are well suited for these applications and detect carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3) and sulfur dioxide (SO_2).

FEATURES

- High resolution
- Low detection limit

BENEFITS

- Drop-in replacement for other AAQ competitors' sensors
- High correlation with control station
- Parameters provided with each sensor for accurate environmental compensation
- Highly accurate

AQ3 & AQ7 APPLICATIONS

- AAQ mini stations, portable AAQ systems, AAQ UAVs
- Aerial vehicles
- Urban air monitoring networks
- National air monitoring networks
- Roadside air monitoring
- Industrial perimeter monitoring
- Environmental impact assessments
- Research and consultancy projects
- Short-term hot spot monitoring

HONEYWELL AQ3 & AQ7 INDUSTRIAL GAS SENSORS
View our offering by clicking here.

INDUSTRIAL SENSING
CRIR SERIES

The CRIR Series are single channel, non-dispersive infrared (NDIR) sensors. Within the CRIR M1 and CRIR E1 is a sensing chamber with an infrared source at one end and a detector fitted with an optical filter at the other. The source emits radiation at wavelengths that include the absorption band of CO_2.
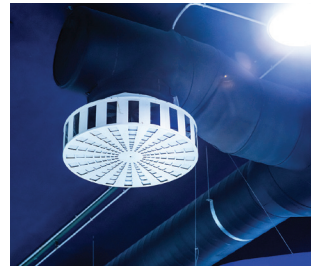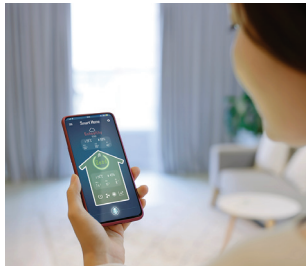
The filter blocks wavelengths that are not sensitive to the presence of CO_2; thereby, increasing selectivity and sensitivity. As the light passes through the sensing chamber, a fraction is absorbed if CO_2 is present. The difference between the light emitted by the source and received by the detector can then be converted to a CO_2 concentration reading.

The Automatic Baseline Correction (ABC) function can automatically calibrate the sensor's lowest reading over a pre-configured interval to 400 ppm CO_2. This enhances long term stability and may eliminate the need for calibration.

FEATURES

- Small size
- Maintenance free for normal indoor applications
- Enhanced long term stability
- Higher accuracy:
  - CRIR M1: ±40 ppm ±3 % of reading
  - CRIR E1: ±50 ppm ±5 % of reading
- Consistency and repeatability
- Easy integration

APPLICATIONS
- HVAC, demand-controlled ventilation
- Indoor air quality (IAQ) measurement
- Air purification systems
- Smart /IoT (Internet of Things) system

HONEYWELL CRIR INDUSTRIAL GAS SENSORS
View our offering by clicking here.

INDUSTRIAL SENSING
ECOSURE X

FEATURES

- Designed for unattended operation and long life: > 10 years in normal use
- Stable performance
- UL Certified – UL2075
- Often used in residential, fire detection and ventilation control application

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.** In no event shall Honeywell be liable for consequential, special, or indirect damages. While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application. Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

FOR MORE INFORMATION

Honeywell Advanced Sensing Technologies services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit our website or call:

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