



PRODUCT GUIDE

ionscience.com
Unrivalled Gas Detection.





ABOUT ION SCIENCE

UNRIVALLED GAS DETECTION

What we do

Ion Science is a leading UK manufacturer of technologically advanced gas detection instruments and sensors, distributed worldwide.

Our instruments

Our portfolio of instruments provide you with unrivalled detection and monitoring capabilities within the harshest of environments. Choose from our range of:

- PID / VOC detectors
- Benzene selective monitors
- General gas leak detectors
- SF6 leak detectors
- Mercury detectors

Gases and applications

Our instruments are designed for use across a wide number of industries and applications, wherever you have a need to detect gases and vapours, including:

- Oil & gas
- Pharmaceutical & medical
- University & laboratory
- Consulting
- Government & defence
- Manufacturing
- Power generation

Our commitment to you

We are committed to developing the highest quality instruments that give you the most accurate, reliable results backed by an unrivalled level of customer service and support.

Unrivalled Gas Detection.



PID SENSOR

PHOTOIONISATION DETECTION (PID)

In addition to manufacturing gas detection instrumentation, Ion Science is a leading manufacturer of PID sensors.

Largest PID manufacturer on the market

MiniPID 2, the miniature photoionisation detection sensor from Ion Science is revolutionising the gas detection market. MiniPID 2 is found in all our PID instruments and has been adopted by leading gas detection manufacturers worldwide, making it the most widely used PID sensor.

Independently verified as best performing PID technology

Our PID sensor technology has received independent verification as best performing on the market proven to outperform all others for speed, accuracy, and give the best performance within humid environments.

Optimal resistance to humidity and contamination

MiniPID incorporates the unique patented Fence Electrode Technology with three electrode format and Anti-contamination design, enabling maximum resistance to humidity and contamination. The sensor is highly sensitive with rapid response and clear down, giving outstanding performance in the field.

Easy to service

The MiniPID sensor is fully serviceable with its electrode stack and lamp easily replaced in seconds even whilst out in the field, minimising instrument downtime.



TIGER LT

HANDHELD VOC DETECTOR

Handheld VOC Detector

The leading technology of Tiger LT makes it the most advanced, low-cost, handheld VOC detector giving the most accurate, reliable results whilst maximising field time.

Features:

- Fast, accurate detection across 0.1 - 5000 ppm range
- Patented humidity resistance for best accuracy
- Anti-contamination design - minimises drift and extends field time
- Response factors for direct concentration readout
- Data logging 128 zones, 80,000 points
- 24 hour Li-ion battery run time
- ATEX and IECEx certified
- Verified as best performing PID sensor technology

Key applications include:

- Environmental monitoring
- Soil contamination
- VOCs in landfill
- Health & Safety
- Indoor Air Quality
- Confined space entry
- First response
- Fumigation gases

Certification: Intrinsic Safety
ATEX, IECEx, North American and Canadian standards



Unrivalled Gas Detection.



TIGER

HANDHELD VOC DETECTOR

Handheld VOC detector

A revolutionary handheld detector, Tiger provides rapid, accurate detection of volatile organic compounds (VOCs) with high resistance to humidity and contamination.

Features:

- Detection range 0 - 20,000 ppm, 1 ppb sensitivity
- Over 450 gases with STEL's & TWAs held in memory
- Fast 2 second response
- Longest battery life for extended run time
- Easy to use - minimal training required
- Robust, rugged design
- Bright LED & vibration alarms
- Low running costs
- Easily upgradeable online
- PID sensor has been independently verified as best performing
- Virtually eliminates the effects of humidity
- Anti-contamination design

Key applications include:

- Industrial hygiene
- Oil & gas
- Chemical & petrochemical
- Health & safety
- Pharmaceutical
- First response
- Hazardous materials
- Environmental

Certification:

 Intrinsic Safety

ATEX, IECEx, North American and Canadian standards





TIGER SELECT

HANDHELD BENZENE DETECTOR

Handheld benzene & TAC detector

Tiger Select with two-mode operation rapidly detects benzene and Total Aromatic Compounds (TACs). The Ion Science pre-filter tubes also offer the most accurate, reliable measurement you can count on.

Features:

- Fast, accurate detection
- Instant read-out on start up
- Measures benzene with or without tube attachment
- Continuous readings displayed
- PID independently verified as best performing
- Longest battery life for extended run time
- Easy to use - minimal training required
- Robust, rugged design
- Low running costs
- Easily upgradeable online
- Market leading ppb sensitivity
- Virtually eliminates the effects of humidity
- Anti-contamination design

Key applications include:

- Refinery downstream monitoring
- TAC detection at loading docks & barge operations
- Confined space entry
- Hazardous materials
- Marine spill response

Certification: Intrinsic Safety

ATEX, IECEx, North American and Canadian standards



Unrivalled Gas Detection.



PRE-FILTER TUBES

BENZENE SPECIFIC

Benzene pre-filter tubes

Our benzene pre-filter tube ensures rapid detection and selective measurement of benzene. Tubes are used specifically with the Tiger Select instrument and mounted within the tube holder assembly.

Each box contains 10 tubes. Boxes of tubes can be purchased individually, in packs of 10 boxes or packs of 50 boxes.

Please note: The Ion Science pre-filter tubes are compatible with the Tiger Select only.

Features:

- Specifically designed to be used with the Tiger Select handheld benzene detector
- Can be stored for up to 2 years from purchase
- Competitively priced





CUB

PERSONAL VOC DETECTOR

Personal VOC detector

Cub is the smallest, lightest personal VOC detector available for fast, accurate detection of volatile organic and total aromatic compounds keeping you safe within your working environment.

Features:

- Market leading ppb sensitivity
- Small, lightweight & unobtrusive to wear
- Widest detection range; 1 ppb to 5000 ppm
- Measures TWAs & STELs for 450 selectable compounds
- Longest battery life for extended run time
- PID independently verified as best performing
- Minimises the effects of humidity
- Anti-contamination design

Key applications include:

- Industrial hygiene
- Oil & gas
- Chemical & petrochemical
- Health & safety
- Pharmaceutical
- First response
- Hazardous materials
- Environmental



Certification: Intrinsic Safety
ATEX, IECEx, North American and Canadian standards

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CUB TAC

PERSONAL TAC MONITOR

Personal TAC detector

Cub^{TAC} is a personal benzene detector for the fast, accurate detection of total aromatic compounds (TACs), including benzene, keeping you safe within your working environment. Comfortable and unobtrusive to wear, Cub^{TAC} is the smallest, lightest, personal TAC and benzene detector available.

Features:

- Specifically designed for total aromatic compounds (TACs), including benzene
- Market leading ppb sensitivity
- Small, lightweight & unobtrusive to wear
- Widest detection range; 10 ppb to 5000 ppm
- Longest battery life for extended run time
- PID independently verified as best performing
- Virtually eliminates the effects of humidity
- Anti-contamination design

Key applications include:

- Industrial hygiene
- Oil & gas
- Chemical & petrochemical
- Health & safety



Certification: Intrinsic Safety
ATEX, IECEx, North American and Canadian standards



FALCO

FIXED VOC DETECTOR

Fixed continuous VOC detector

World's safest PID technology is now even safer! Falco even works within condensing atmospheres and extreme weather. The diffused version (Falco 1.1) samples the local environment but has lower service costs as it has no pump. The pumped version (Falco 1.2) can draw samples from inaccessible areas from up to 20 meters away.

Features:

- Designed for extreme weather
- Typhoon Technology stops condensation forming within the PID sensor
- Sensor minimises drift and downtime
- Eliminates false readings found with other PIDs
- Multi-coloured status display seen from 20 meters
- Pumped model available
- Ex d approved

Key applications include:

- Manufacturing
- Processing
- Refineries & Petrochemical
- Chemical
- Waste water treatment
- Outdoor air quality
- Tankfarms



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FALCO

PUMPED AND DIFFUSED

Typhoon technology

The Falco PID sensor and housing are specifically designed to ensure reliable performance in the harshest weather. This cutting edge design eliminates condensation forming on the PID electrodes which can cause sensor failure.

Detection ranges

- 0 - 10 ppm
- 0 - 50 ppm
- 0 - 1000 ppm
- 0 - 3000 ppm

sensitivity:

- 0.001 ppm
- 0.01 ppm
- 0.1 ppm
- 1 ppm

Outputs :

- RS 485 (Modbus®)
- 4 - 20 mA
- 2 x Configurable relays



FALCO 1.1
(Diffused)



FALCO 1.2
(Pumped)

Certification: Intrinsic Safety and EX d
ATEX, IECEx, North American and Canadian standards



TITAN

BENZENE SPECIFIC MONITOR

Fixed benzene specific monitor

Ion Science brings to market the world's first continuous, wall-mounted, benzene specific monitor set to change the game in refinery applications.

Features:

- Fast, accurate detection
- Minimum sensitivity 0.1 ppm benzene
- Detection range from 0 - 20 ppm
- Provides an immediate warning alarm system
- Continuous real-time readings
- Stable operation in extreme temperatures
- Modular design for easy install and service
- PID sensor technology verified as best performing
- Anti-contamination PID design

Key applications include:

- Oil & gas
- Petrochemical
- Chemical
- Health & safety
- Offshore

Certification: Ex d
ATEX, IECEx, North American and Canadian standards



Unrivalled Gas Detection.



TVOC

FIXED VOC DETECTOR

Fixed VOC detector

TVOC is a fixed VOC detector for fast, accurate detection of volatile organic compounds with multiple detection range from just one instrument.

Features:

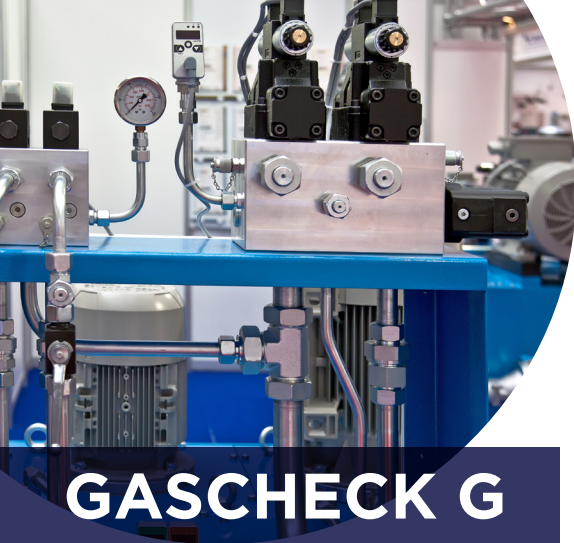
- Accurately measures over three different ranges
- Diffusive monitoring - no pump required
- Robust, rugged design
- ATEX & IECEx approved
- Simple to use - minimal training required
- Easy access PID sensor
- Simple service and calibration
- Minimises the effects of humidity
- Anti-contamination design

Key applications include:

- Pharmaceutical
- Chemical industry
- Indoor air quality
- Refineries
- Petrochemical plants
- Solvent recovery systems



Certification: Intrinsic Safety
ATEX, IECEx



GASCHECK G

HANDHELD GAS LEAK DETECTOR

Handheld gas leak detector

The Gascheck G range of leak detector are designed for the search and location of gas leaks, providing you with effective detection of almost any gas or gas mixture.

Features:

- Detects almost any gas
- Reliable, stable & repeatable
- Ready to detect instantly
- Clear indication of leaks
- cc/sec, mg/m³ or ppm readings
- Robust, handheld, easy to use
- Upgradeable

Key applications include:

- Industrial
- Refrigeration
- Manufacturing
- Quality assurance
- Laboratory



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GASCHECK TESLA

HANDHELD GAS LEAK DETECTOR

Helium gas leak detector

The GasCheck Tesla is a highly sensitive helium leak detector designed for effective use within high magnetic fields found around the outside of Magnetic Resonance Imaging (MRI) scanners. The instrument's advanced micro thermal conductivity sensor provides rapid, accurate measurement of helium leaks down to ultra-low levels.

Features:

- Operates effectively within a magnetic field
- Reliable, stable & repeatable
- Ready to detect instantly
- Clear indication of leaks
- cc/sec, mg/m³ or ppm readings
- Robust, handheld, easy to use
- Additional diagnostics

Key applications include:

- MRI scanner maintenance





MVI

PORTABLE MERCURY VAPOUR INDICATOR

Portable Mercury Vapour Indicator

MVI accurately detects mercury vapours in just 3 seconds. MVI does not saturate or need regenerating, eliminating instrument downtime.

Features:

- No saturation, no regeneration, no downtime
- Range: 0.1 - 200 & 1.0 - 1999 microgram/cubic meter
- Fast indication and recovery
- 3 second response
- Highly accurate measurement
- Ready to detect in minutes
- Continuous readings
- Simple, one-handed operation
- Large digital display
- Audible alarm
- Robust and portable

Key applications include:

- Manufacturing
- Recycling
- Mining
- Petroleum
- Fluorescent lamp reprocessing plants



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SF6 LEAKCHECK P1:P

TRANSPORTABLE SF6 LEAK DETECTOR

Transportable SF6 leak detection

The SF6 LeakCheck P1:p is an award winning SF6 leak detector ensuring incredibly fast detection at ultra sensitive levels.

Features:

- Award winning technology
- Highly sensitive, detects leaks down to 1×10^{-8} ml/sec*
- 1 second rise and clear down
- Unaffected by large leaks and 100% SF6
- Choice of display units
- Easy storage & transportation
- Low cost of ownership
- No delays between searches
- Easy navigation
- Low maintenance
- Data storage and printing for data analysis
- High sense option

Key applications include:

- Leak testing in high voltage switchgear
- Breathing device testing
- Medical device testing
- Refrigerant leak testing
- Air conditioning leak testing





GASCLAM

BOREHOLE GAS MONITOR

Continuous ground gas monitoring

GasClam® collects unmanned continuous ground gas concentration data as well as parameters that are known to control it - subsurface pressure, atmospheric pressure and water level.

Features:

- Continuous gas (methane, carbon dioxide, oxygen, hydrogen sulphide and total VOC) monitoring
- Continuous atmospheric/borehole pressure and water level monitoring
- Anti-contamination design - minimises drift
- Battery powered deployment for up to 3 months
- External power option for longer deployment

Key benefits:

- Optimised site management through continuous monitoring
- Reduced risk based upon improved site characterisation and event flagging
- Provides complete data for site assessments
- Demonstrates due diligence and regulatory compliance
- Supports a best practice approach to ground-gas monitoring

Certification: Ex d

IECEX, North American and Canadian standards



Unrivalled Gas Detection.



MINIPID 2

PID SENSOR

PID Sensor

MiniPID 2 and MiniPID 2 HS are the most advanced PID sensor on the market, detecting a vast range of VOC gases. Its patented technology enables resistance to humidity and contamination within the harshest working environments.

Features:

- Humidity-resistance
- Anti-contamination design
- Exceptionally linear wide range
- Low drift high sensitivity
- 10 eV, 10.6 eV and 11.7 eV lamps available
- Removable, pneumatically sealed sensing electrode stack
- Series 4 / A1 format
- 12 month warranty
- Expected life > 5 years

Key applications include:

- Personal safety
- Industrial hygiene
- Site soil and air sampling
- Fugitive emission and volatile spills
- Law enforcement
- Emergency response
- Confined space entry



Certification: Intrinsically Safe

ATEX, IECEx, North American and Canadian standards

Ion Science

Our head office and manufacturing plant is located just outside of Cambridge in the UK.



Distributors

We have additional offices in China, France, Germany, Italy and the USA, and an extensive network of distributors located throughout the world.



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