

# ADVANCED GAS DETECTION IN THE HARSH ENVIRONMENTS

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Honeywell Searchline Excel™ Plus

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**Honeywell**



# HONEYWELL SEARCHLINE EXCEL™ PLUS ADVANCED OPEN PATH FLAMMABLE GAS DETECTION

In harsh and changing environments, reliable gas detection in low visibility offers protection and, more importantly, continuous safety monitoring. Searchline Excel™ Plus can see through the thickest fog better than any other Open Path Gas Detector whether NDIR or Laser-based; delivering fast response, alignment accuracy, and excellent performance.

## MAXIMIZE SAFETY COVERAGE IN MINIMAL VISIBILITY

Offering a host of dynamic benefits, from simple installation and reduced maintenance costs to increased product uptime, Searchline Excel™ Plus is an innovation in gas detection technology. It is able to penetrate even thick fog, better than any other open path gas detector maintaining protection for people and infrastructure.

Honeywell Searchline Excel™ Plus is an Advanced Open Path Gas Detector that detects flammable Hydrocarbon gases using Near Band Infrared (NBIR) absorption in a line between the cooperative Transmitter (Tx) and Receiver (Rx).

With a normalized, flatter response to C1 through C6 Hydrocarbons, safety is improved and no field calibration is required. With SIL2, maintenance cycles up to 10 years and beyond and advanced diagnostics, including windows clarity and alignment accuracy, Searchline Excel™ Plus allows operators to move to health-based maintenance, dramatically reducing total cost of ownership.



## SIMPLIFIED INSTALLATION USING UNIVERSAL MOUNT

Searchline Excel™ Plus uses the new Honeywell Fixed Platform Universal Mount which enables easy mechanical installation and alignment using fine-tuning adjustments. The separate Ex de connections compartment, with pluggable connectors, simplifies wiring.

## ENHANCED ALIGNMENT ACCURACY

Take advantage of improved alignment with the new alignment scope featuring zoom capability. For added benefit, pair the Searchline Excel™ Plus with our intrinsically safe, ruggedized smartphone; then use the Honeywell Fixed Platform App to interact with the detector.



# SIMPLIFIED INSTALLATION REDUCES DOWNTIME AND MAINTENANCE COSTS

## EASIER SETUP AND TESTING WITH ADVANCED TOOLS

The Searchline Excel™ Plus features Bluetooth® connectivity allowing it to be paired with a hazardous area mobile device running the Honeywell Fixed Platform App for simplified, non-intrusive set-up and maintenance.

This not only simplifies detector installation, commissioning and maintenance, but is also cost-effective reducing time in asset management.

When paired with a mobile device Searchline Excel™ Plus works from ground level, enabling easy set-up, maintenance and testing. Improved test filters provide fast and effective performance checks. Automatic reporting simplifies end-of-day maintenance logging.



## AT-A-GLANCE STATUS

- Green indicates normal operation
- Yellow indicates a fault
- Red indicates an alarm
- Blue indicates when in Bluetooth® pairing mode



## IMPROVED MAINTENANCE

The SIL2 certified Searchline Excel™ Plus delivers a robust and reliable open path flammable gas detector for safety instrumented systems.

Advanced diagnostics deliver power, temperature, processor, sensor, electronics and firmware monitoring with window clarity and alignment quality, allowing maintenance cycles to be extended up to 10 years and beyond with health-based predictive maintenance instead of set maintenance cycles.

The Searchline Excel™ Plus has a separate compartment for the electro-optical module which allows it to be easily changed to enable quick and efficient maintenance to reduce downtime.





## FEATURES AND BENEFITS\*

- **Patented, high dynamic range, transmission and reception technology;** no moving parts. Delivers safety coverage even in limited visibility
- **Fast response to flammable Hydrocarbon gas,** covering 2 m to 120 m detection range
- **High-end coaxial measurement and dual reference with complex filtering and advanced algorithms** delivers best-in-class detection of flammable Hydrocarbon gases in real-world environments. Robust detection, even in limited visibility, provides vastly improved and unbeatable uptime
- **Complements Honeywell point and ultrasonic gas detectors** with common mounting and commissioning and maintenance tools. Enables mixed technology detection layer approach and is supported by Honeywell flame detection for next layer
- **No field calibration required,** just simple bump test
- **Low maintenance**
- **Built-in health test and logging**
- **Automatic optimal alignment test** monitors the Searchline Excel™ Plus Tx/Rx pair for optimal alignment allowing operators to maintain highest levels of performance
- **Robust, painted, stainless steel housing**
- **Honeywell Fixed Platform Universal Mount** with graduated 3 degrees of movement and fine adjustment enables simple mechanical installation and alignment
- **Advanced alignment scope** enables simple, robust, one-person alignment
- **Two compartments (Ex de) with separate electro-optical module from connections** to enable simple electrical installation without disturbing sensing electronics. Supports worldwide installation practices
- **Electro-optical compartment and module** enable quick replacement in the event of a fault, without any need for field calibration
- **Worldwide approvals for hazardous areas** including ATEX, IECEx, cULus, FM, INMETRO, CCCF; Ex d; Zone 1, ClassII/III
- **Marine approvals**
- **SIL2 certified to EN61508 by TÜV (SÜD)**
- **Performance certified** ANSI/FM/IEC/ EN60079-29-4
- **Ingress protection** IP66/67, Type 4X
- **Industry standard 4-20mA output;** HART®, Modbus and Bluetooth® communication
- **Relay outputs** including Fault relay, Alarm 1 and 2 relays
- **High visibility green/yellow/red/blue LED HALO** ring shows instrument status
- **Bluetooth®-enabled** to allow set-up and interrogation from ground level using Honeywell Fixed Platform Application on IS mobile device. Range of up to 20 m (mobile device dependent)
- **Simplified test filters and gassing cell** enables set-up and bump test with the Honeywell Fixed Platform App
- **Full logging and auto-reporting** of faults, alarms, commissioning and maintenance actions

\*See product manual for full specifications.

# ADVANCED RELIABLE GAS DETECTION AT YOUR FINGERTIPS

To interface with a Searchline Excel™ Plus detector, simply download the Honeywell Fixed Platform App, use Bluetooth® to pair your mobile device with the detector and open the app to see the data.

**IN OIL AND GAS, PETROCHEMICAL, CHEMICAL AND OTHER INDUSTRIAL SITES, SEARCHLINE EXCEL™ PLUS DELIVERS PERFORMANCE AND CONTINUOUS SAFETY MONITORING.**

## **Ease of Operation**

- Advanced, fast and reliable detection of flammable Hydrocarbon gases
  - Larger dynamic range enables continued operation in harsh weather conditions
  - Wider measurement beam simplifies alignment and makes the gas detector more tolerant of movement
- Next generation, robust optics design for demanding environments, especially fog, rain and mist
- Factory calibrated, no field calibration needed, thereby simplifying maintenance
- Built-in test and diagnostics to dramatically simplify maintenance and allow for extended maintenance cycles
- Range of outputs enables system design
  - 4 to 20mA HART® DTM
  - Modbus
  - Fault and Alarm relays
- Bright HALO indicator for status awareness; easier to locate a unit in fault/warning/alarm
- Advanced diagnostics, including real-time alignment quality, drive health-based maintenance
- Real-time detection readings and full logging simplify asset management



## **Ease of Installation**

- Universal mount with 3 degrees of movement, plus fine-tune adjustment, enables pole, wall or strut mounting and easy alignment between the transmitter and receiver
- Ex de compartment for cabling means no intrusion to the electro-optic chamber and simplifies connections with no junction box required
- Honeywell Fixed Platform App provides in-hand installation guide and auto-reporting on the Honeywell Handheld Unit with familiar smart device technology to aid in installation and asset management
- Efficient installation or readjustment with the advanced alignment scope making coaxial positioning of the Transmitter and Receiver quick and easy

## **Simplified Commissioning**

- High visibility LED HALO ring provides clear indication of device status and negates the need for an additional transmitter or display, thereby simplifying installation and commissioning
- Remote set-up via Bluetooth® mobile device and Honeywell Fixed Platform App means no need for scaffolding, thereby reducing costs and enhancing safety
- Simple testing using solid filters and Honeywell Fixed Platform App enables quick, simple bump test
- Commissioning guide and logging on mobile device assists set-up, asset management and reporting

## **Proactive Maintenance**

- Robust internal self-test and diagnostics; know before you go – proactive maintenance
- High visibility LED HALO ring provides clear indication of device status
- Simplified maintenance using test filters or gassing cell with the Honeywell Fixed Platform App enables local or full loop tests
- Non-intrusive interaction reduces maintenance time and safety risks
- Simple module replacement if necessary

# PROTECTING YOUR WORKERS AND YOUR ENTERPRISE

Honeywell offers multiple technologies providing a layered safety approach to meet the requirements of tough applications and environments. Contact us today to learn more.

## For more information

[www.sps.honeywell.com](http://www.sps.honeywell.com)

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FUTURE  
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