



**Medium Range (40 to 120 metres)  
open path infrared gas detection**

# Searchline Excel Medium Range (40 to 120 metres)



## Features

- Immune to sunlight effects
- Outstanding severe weather performance (e.g. fog, snow, rain)
- Very fast response time
- Single operator alignment
- True alignment system
- Single operator commissioning
- Early warning of dirty optics
- Heated optical windows
- Optional Modbus RS485 multidrop output

## Applications

- FPSO's, Petrochemicals plants, offshore platforms, pipeline monitoring, perimeter monitoring, etc.

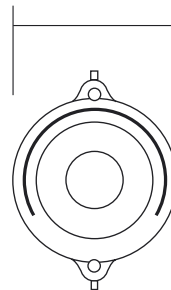
## Accessories

- Heat/deluge cover  
dual purpose hand held interrogator,  
gassing cell, alignment telescope,  
functional test filters

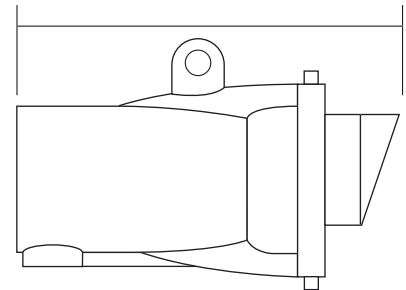
**Searchline Excel is a hydrocarbon detector using open-path infrared technology. Using a separate transmitter and receiver configuration, it provides a wide, dynamic range and maximum on-line time. Advanced digital signal processing and self checking ensures high integrity and availability. It has a stainless steel housing for robustness. Outputs are industry standard 4-20mA and optional Modbus RS485 multidrop.**



Tx=137mm  
Rx= 80mm



Tx=235mm  
Rx=185mm



# General specification



General Specification	
<b>Available Gases</b>	Methane, ethane, propane, butane, pentane, hexane, ethylene <sup>(2)</sup> , propylene <sup>(2)</sup> , butadiene <sup>(2)</sup> , ethanol <sup>(2)</sup> , methanol <sup>(2)</sup> , vinyl chloride <sup>(3)</sup> , ethylene dichloride <sup>(3)</sup>
<b>Range</b>	0 to 5 LEL.m
<b>Recommended Alarm Settings</b>	(Low) 1.0 LEL.m ; (high) 3.0 LEL.m
<b>Path Length</b>	40 to 120m (130 to 390 ft)
<b>Speed of Response</b>	T90 less than 3 seconds (under normal operating circumstances)
<b>Output Signal</b>	4 to 20mA (maximum loop resistance 600 ohms ; source & sink available) and RS485 21mA Overrange 4 to 20mA Normal operation (0 to 5 LELm) 3mA <sup>(1)</sup> Dirty optics 2.5mA <sup>(1)</sup> Beam blocked 2mA <sup>(1)</sup> Inhibit 0mA Fault
<b>Digital Output</b>	Optional Modbus RS485 multidrop output using DVC/DX100(m)
<b>Operating Temperature</b>	-40 to 65°C (-40 to 150°F)
<b>Operating Humidity</b>	0 to 99% RH (non-condensing)
<b>Operating Pressure</b>	91.5 to 105.5 KPa (915 to 1055 mbar non compensated)
<b>Repeatability</b>	±0.1 LELm
<b>Warm-up Time</b>	Less than 5 minutes (operational), or less than 1 hour (fully stabilised)
<b>Power Supply</b>	18V to 32V dc
<b>Power Consumption</b>	TX 5.5 / 7.5*W maximum RX 8W maximum
<b>Enclosure Material</b>	316 stainless steel
<b>Weight (inc. mounting bracket)</b>	TX 7kg RX 3.5kg
<b>Vibration</b>	2 to 60Hz, max ptp amplitude 1mm
<b>Misalignment Tolerance</b>	±0.5° (+/-~104cm at 120m)
<b>EMC Standards</b>	EN50081-1 1992 EN50082-2 1995
<b>Performance Approval</b>	FM performance approved
<b>Safety Approval</b>	CENELEC/ATEX EExd IIC T5(-40°C to +65°C) EExd IIC T6(-40°C to +40°C) II 2G FM Class 1 Div 1 Groups B, C + D UL Class 1 Div 1 Groups B, C + D and Class 1 Zone 1 AEx d IIB + H <sub>2</sub> (Tamb -40°C to +65°C) CSA Class 1 Div 1 Groups B, C + D, T5 and Exd IIC (Tamb -40°C to +65°C) Other SAA, FTZU, GOSST I.P Rating IP66 and IP67

(1) User programmable

(2) Only available on Searchline Excel ethylene versions

(3) Only available on Searchline Excel ethylene versions with factory calibration accuracy of ±15%

(\*) Turboheating activated (standard feature; user selectable). This is recommended for the most severe weather conditions

As World leaders in gas detection solutions, Honeywell Analytics' Sieger systems provide the most efficient, practical and cost-effective fixed-point equipment. Wherever protection is required from flammable or toxic gases, you can rely on our equipment to provide practical solutions and to help keep your business running safely and profitably.

## The Sieger range of fixed gas detection



**Apex**

Typically used in the oil and gas distribution, petroleum extraction and chemical manufacturing industries, the Apex gas detector and transmitter functions across a wide range of detectable flammable and toxic gases. With its rugged 316 stainless steel enclosure, it is especially suited for extreme conditions, and provides a cost-effective gas detection solution for a wide range of applications.



**Searchline Excel**

Searchline Excel Cross Duct™ is an open path infrared gas detector for the detection of Hydrocarbons within HVAC air intakes and ventilation ducting systems up to 5 meters in width.

It is based on the proven Searchline Excel, which covers ranges up to 200m.

ClearShield™ glass coating, infrared beam and heated optical surfaces all combine to reduce downtime and increase system availability.



**Searchpoint Optima Plus**

Designed for use in potentially explosive atmospheres in harsh environmental conditions, SearchPoint Optima Plus is ideal where speed of response, reduced maintenance and failsafe operation is essential. Common applications include offshore platforms, production storage and offloading vessels, and oil and gas terminals.



**Signalpoint**

Signalpoint is a self-contained gas sensor system for either combustible or toxic gases, designed to make installation simple and maintenance minimal. Constructed in strong plastic, it is particularly suited for indoor applications in light industrial environments.



**System 57**

The System 57 controller provides display and alarm facilities for the full range of gas detectors. It comprises a rack unit with mounting options for channel control cards and interface cards.

### Find out more

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

### Customer business centre

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**Searchflame 16**

Searchflame 16 is a range of optical flame detectors for detection of Hydrocarbon and non-Hydrocarbon flaming fires in designated hazardous areas. Operating on UV or UV/IR principles, they have a 120-degree field of view, providing the widest coverage available by any product.



**705 HT Sensor**

The 705 High Temperature Sensor is a hazardous area certified sensor for the detection of combustible gases.

#### Please Note:

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