

Ribble Enviro
...everything gas detection

Data Sheet

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HONEYWELL SEARCHLINE EXCEL™ PLUS

Continuous Safety

The Searchline Excel™ Plus Flammable Hydrocarbon gas detector delivers unsurpassed uptime with robust detection in some of the harshest conditions.

MAXIMIZE SAFETY COVERAGE EVEN IN MINIMAL VISIBILITY

Ensure optimal fire and gas safety by deploying cutting-edge optical gas detection that can see through even thick fog better than any other open path gas detectors whether NDIR or laser-based.

The Searchline Excel™ Plus is a medium-range gas detector designed for global oil and gas applications, upstream and downstream, onshore and offshore that protects your people, your facilities and your systems from combustible gas leaks.



APPROVALS

Global hazardous area and performance approvals include SIL2, ATEX, IECEx, cULus, FM, INMETRO, CCCF, Ex d, Zone 1, ClassII/III and ANSI/FM/IEC/EN60079-29-4.

FEATURES AND BENEFITS



RELIABLE DETECTION

Fast response to flammable Hydrocarbon gas even in low visibility conditions. Advanced diagnostics including window clarity and alignment accuracy to enable maximum uptime and continuous site protection.



HEAVY DUTY OPERATION

Operates in harsh environments to maintain coverage. Advanced transmitter and receiver optics means that monitoring continues in thick fog long after other detectors cease to provide coverage.



EASY TO USE

Low maintenance and calibration free. New Honeywell Fixed Platform Universal Mount and advanced alignment scope makes for easy mechanical installation.



AT-A-GLANCE INSTRUMENT STATUS

High Visibility LED HALO ring provides clear indication of device status. Automatic reporting with full logging of alarms, events and maintenance actions.



MULTIPLE OUTPUTS

Multiple outputs including 4-20mA, Relays, HART®, Modbus and Bluetooth® communication

Easily integrate the Searchline Excel™ Plus into your existing network.



CONNECTIVITY

Incorporates Bluetooth® connectivity for simplified, non-intrusive set-up and maintenance. Just pair the Searchline Excel™ Plus with our intrinsically safe, ruggedized mobile phone; then use the Honeywell Fixed Platform App to interact with the detector.

Honeywell

Honeywell Searchline Excel™ Plus Technical Specifications See product manual for full specifications.

Technical Specifications	
Primary Gases (Performance approved ^{1,2})	Searchline Excel™ Plus will respond to a wide range of Hydrocarbon Gases as most of these gases absorb IR in the required wavelengths: Methane ^{1,2} , Ethane ¹ , Propane ^{1,2} , Butane ¹ , Pentane ¹ , Hexane, Ethylene ¹ , Propylene ¹ ; ¹ FM Performance Approved; ² DNV approved
Range	0–5 LEL.m; for ppm.m equivalents see manual
Recommended Alarm Setting	Low 1 LEL.m; High 3 LEL.m; for ppm.m equivalents see manual
Recommended Minimum Alarm Setting	LEL.m; for ppm.m equivalents see manual
Path Length	2 m to 120 m (6 ft to 393 ft)
Speed of Response	T90 less than 3 seconds
Analog Output Signal	4–20 mA Normal operation, 1 mA Fault*, 2 mA Inhibit, 3 mA Warning, 21 mA Overrange. Linearized 0–5 LEL.m
Environmental Operating Temperature	-55°C to +75°C (-67°F to 167°F). DNVGL-CG-0339 Location Class B
Storage Temperature Range	-55°C to +75°C (-67°F to 167°F). DNVGL-CG-0339 Location Class B
Power Supply	24 Vdc nominal (18 Vdc to 32 Vdc)
Power Consumption (Average RMS)	Transmitter: Above +30°C (+86°F) = 3.8 W; +30°C to -30°C (+86°F to -22°F) = 5.6 W; Below -30°C (-22°F) = 11.8 W Receiver: Above +30°C (+86°F) = 3.0 W; +30°C to -30°C (+86°F to -22°F) = 4.8 W; Below -30°C (-22°F) = 7.4 W
Output Signals	4–20 mA with HART®, Fault relay, Alarm 1 relay, Alarm 2 relay, Modbus, Bluetooth® (range up to 20 m (66 ft), depends on mobile device and environmental conditions)
Relay Outputs	Max. 32 Vdc/ac, max. 2 A resistive load
Humidity	0–99% Relative Humidity Non-condensing. DNVGL-CG-0339 Location Class B
Pressure	91.5–105.5 kPa (915–1055 mBar, non-compensated)
Repeatability	±0.4 LEL.m; for ppm.m equivalents see manual
Temperature Drift -40°C to +65°C (-40 °F to 149 °F)	±0.2 LEL.m @ zero ±0.5 LEL.m @ 3 LEL.m
Warm-up Time	Less than 5 minutes (operational), less than 1 hour (fully stabilized)
Internal Battery Cell	TLH-2450, 10-year lifetime (replaced only by authorized service)
Weight	Searchline Excel™ Plus: Rx 6.1 kg (13.4 lb), Tx 6.0 kg (13.2 lb) Universal Mounting Bracket: 3.1 kg (6.9 lb) Stainless Steel Mount Plate Adaptor: 3.71 kg (8.18 lb) Stainless Steel
Dimensions	Searchline Excel™ Plus: 103 mm dia x 325 mm x 180 mm (4.06 in dia x 12.8 in x 7.09 in) Universal Mounting Bracket: 165 mm x 165 mm x 130 mm (6.5 in x 6.5 in x 5.12 in) Mount Plate Adaptor: 210 mm x 210 mm x 127 mm (8.23 in x 8.23 in x 5 in)
Ingress Protection	IP 66/67 (Type 4X, in accordance with NEMA 250); Resistance to salt mist and sulfuric atmosphere (15–60 minutes exposure to salt air/mist; 15–60 minutes to sulfuric atmosphere)
Safety Approvals	cULus: Class I, Division 1, Groups. B,C,D, T4, Ta -55°C to 75°C (-67°F to 167°F) Class II, Division 1, Groups. E,F,G, T4, Ta -55°C to 55°C (-67°F to 131°F) Class III Div. 1; Class I Zone 1 AEx db ia IIC T4 Gb, Ta -55°C to 75°C (-67°F to 167°F) Class I Zone 1 AEx db eb ia IIC T4 Gb, Ta -55°C to 75°C (-67°F to 167°F) Zone 21 AEx tb IIIC T100°C Db, Ta -55°C to 55°C (-67°F to 131°F) Um = 250 Vrms IECEX: IECEX ULD 18.0016X; Ex db ia IIC T4 Gb (for flameproof Ex d installations) Ex db eb ia IIC T4 Gb (for increased safety Ex e installations) Ex tb IIIC 100°C Db Tamb -55°C to 75°C (-67°F to 167°F); Um = 250 Vrms Performance Approvals: ANSI/FM/IEC/EN 60079-29-4 Functional Safety (SIL): SIL 2 certified by TÜV (SÜD) to EN61508 Core Approvals: EN 50270: (EMC) IEC/EN 61000-6-4; Radio Equipment Directive 2014/53/EU IEC/EN/UL/CSA 61010 (Electrical Safety); FCC / IC; RoHS, China RoHS

*Searchline Excel™ Plus will indicate Fault after 30s without signal. This value is programmable. To comply with FM performance approval, the maximum value for Time to Block is 200s.

Honeywell Searchline Excel™ Plus Accessories, Spares and System Part Numbers

System Part Numbers					
Part Number	Version	Material	Entries	Approvals	Reserved
SLXL	P - Medium Range Continuous Safety Open Path Flammable Gas Detector	S = Stainless Steel	M = M25 N = 3/4" NPT	G = Global (ATEX, IECEx, UL, Marine, INMETRO, CCCF, etc.)	X = KIT D = Demo R = RX T = TX
SLXL-PSMGXX	Searchline Excel™ Plus, Medium Range: SS M25 including Small SS Mount & Bracket & Plastic Sunshade				
SLXL-PSNGXX	Searchline Excel™ Plus, Medium Range: SS 3/4" NPT including Small SS Mount & Bracket & Plastic Sunshade				

Accessories	
Part Number	Description
2331B1020	Large Adjustable Mounting Bracket
2017B0113	Stainless Steel Sunshade
2017B0299	Alignment Scope
2017B0218	Functional Test Filters
2017D0226	Functional Test Filters Extender
2017B0185	Gassing Test Cell
188-200-010	Intrinsically Safe Android Device Ex02-Z1-C1D1/ATEX/IECEX/NEC - with camera
188-200-020	Intrinsically Safe Android Device Ex02-Z1-C1D1/ATEX/IECEX/NEC - without camera
188-200-120	Charger (EU/UK/US/AU) for 188-200-010 and 188-200-020
188-200-130	Vehicle Charger for 188-200-010 and 188-200-020
Free Download	Honeywell Fixed Platform App 

Spares	
Part Number	Description
2331B1100	Spare Universal Mounting Bracket Plate
2017B0112	Spare Standard Sunshade (Plastic)
2331B1150	Spare Terminal Block Set (5 Pack)
2331B1160	Spare Antenna Cover (5 Pack)

For more information

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HART® is a registered trademark of INC International Company.

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FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell