

# Searchline Excel

## Infrared Open Path Combustible Gas Detector



$C_3H_8$ ,  $C_4H_{10}$ ,  $C_5H_{12}$ ,  $CH_3CH_2OH$ ,  $CH_3OH$ ,  $CH_4$



The Searchline Excel is the world's best selling infrared open path gas detector with over 6,000 units installed in challenging applications throughout industry. From the Arctic Circle to the Gulf of Mexico, customers have repeatedly selected the Searchline Excel as their preferred choice.

### Choose from 3 versions:

Short Range: 5-40 m

Medium Range: 40-120 m

Long Range: 120-200 m

### Hazardous Area Certifications include:

European: ATEX

North American: UL

Canadian: CSA

### Performance Approvals include:

Canada – CSA

USA - FM

### Material:

316 Stainless Steel

### Excellent-Performing Technology

- Fast speed of response provides earliest warning of gas release
- High sensitivity allows low alarm set points
- Alignment free design makes installation simple
- Duct flex and vibration tolerance keeps the system online
- Integral functional gas test facility allows for simple system check
- Contamination resistant optics reduce the need for unscheduled maintenance
- Not affected by interference from water vapor
- Immune to catalytic poisons
- Works in inert atmospheres

### Why open path gas detection?

Open path detectors complement the use of individual point detectors and offer many significant benefits including:

- Wider area coverage — most likely to pick up any leak
- Very high speed of response
- No unrevealed failure modes — no possibility of blocked gas path to detector
- Detector location not as critical
- Indicates size of hazard

### Full Range of Accessories

- Deluge shield / sunshade
- True alignment system
- Gassing cell
- Hand-held interrogator
- Optical gas test filters
- SHC protection device

# Searchline Excel

## Infrared Open Path Combustible Gas Detector

<b>Searchline Excel Short Range 5 m – 40 m (15 ft.- 130 ft.), UL/CSA Certified</b>	<b>Part Number</b>
Short range TX/RX 5 m to 40 m UL current source	02104-N-5010
Short range TX/RX 5 m to 40 m UL current sink	02104-N-5040
Short range TX/RX 5 m to 40 m CSA current source	02104-N-6010
Short range TX/RX 5 m to 40 m CSA current sink	02104-N-6040

<b>Searchline Excel Medium Range 40 m – 120 m (130 ft.- 390 ft.), UL/CSA Certified</b>	<b>Part Number</b>
Medium range TX/RX 40 m to 120 m UL current source	02104-N-5020
Medium range TX/RX 40 m to 120 m UL current sink	02104-N-5050
Medium range TX/RX 40 m to 120 m CSA current source	02104-N-6020
Medium range TX/RX 40 m to 120 m CSA current sink	02104-N-6050

<b>Searchline Excel Long Range 120 m – 200 m (390 ft.- 650 ft.), UL/CSA Certified</b>	<b>Part Number</b>
Long range TX/RX 120 m to 200 m UL current source	02104-N-5030
Long range TX/RX 120 m to 200 m UL current sink	02104-N-5060
Long range TX/RX 120 m to 200 m CSA current source	02104-N-6030
Long range TX/RX 120 m to 200 m CSA current sink	02104-N-6060

<b>Installation Hardware Kit (UL/CSA Certified)</b>	<b>Part Number</b>
Excel installation hardware kit	2992K0088

<b>Receiver Junction Box (UL/CSA Certified) for Termination/Communication to Excel</b>	<b>Part Number</b>
XNX transmitter, HART® over 4-20 mA output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted LM25, configured for Searchline Excel.	XNX-UTAI-NNNNN
XNX transmitter, HART® over 4-20 mA output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted LM25, with local HART® interface port, configured for Searchline Excel.	XNX-UTAI-NHNNN
XNX transmitter, HART® over 4-20 mA output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted LM25, with Modbus® output, configured for Searchline Excel.	XNX-UTAI-MNNNN
XNX transmitter, Foundation Fieldbus output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted LM25, configured for Searchline Excel.	XNX-UTAI-FNNNN
XNX transmitter, HART® over 4-20 mA output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted 316 stainless steel, configured for Searchline Excel.	XNX-UTSI-NNNNN
XNX transmitter, HART® over 4-20 mA output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted 316 stainless steel, with local HART® interface port, configured for Searchline Excel.	XNX-UTSI-NHNNN
XNX transmitter, HART® over 4-20 mA output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted 316 stainless steel, with Modbus® output, configured for Searchline Excel.	XNX-UTSI-MNNNN
XNX transmitter, Foundation Fieldbus output, UL/CSA approved, 5 x 3/4 in. NPT entries, painted 316 stainless steel, configured for Searchline Excel.	XNX-UTSI-FNNNN
DX100M XPROOF junction box UL with Modbus capability	2104B2382

*Note: Only common XNX configurations listed; see electronic XNX configurator for all available options.*

# Searchline Excel (continued)

<b>Searchline Excel Short Range 5 m – 40 m (15 ft.- 130 ft.), INMETRO Certified</b>	<b>Part Number</b>
Short range TX/RX 5 m to 40 m INMETRO current source	02104-N-7012
Short range TX/RX 5 m to 40 m INMETRO current sink	02104-N-7042
<b>Searchline Excel Medium Range 40 m – 120 m (130 ft.- 390 ft.), INMETRO Certified</b>	<b>Part Number</b>
Medium range TX/RX 40 m to 120 m INMETRO current source	02104-N-7022
Medium range TX/RX 40 m to 120 m INMETRO current sink	02104-N-7052
<b>Searchline Excel Long Range 120 m – 200 m (390 ft.- 650 ft.), INMETRO Certified</b>	<b>Part Number</b>
Long range TX/RX 120 m to 200 m INMETRO current source	02104-N-7032
Long range TX/RX 120 m to 200 m INMETRO current sink	02104-N-7062
<b>ATEX Searchline Excel kits; Includes Transmitter, Receiver, And Installation Hardware.</b>	
<i>Note: XNX must be ordered separately.</i>	
<b>Searchline Excel Short Range 5 m – 40 m (15 ft.- 130 ft.), ATEX Certified</b>	<b>Part Number</b>
Short range system 5 m to 40 m ATEX complete TXR and RXR system, installation hardware kit, SS316 mounting plates and brackets, 1 junction box current source	02104-N-XSAAUS
<b>Searchline Excel Medium Range 40 m – 120 m (130 ft.- 390 ft.), ATEX Certified</b>	<b>Part Number</b>
Medium range system 40 m to 120 m ATEX complete TXR and RXR system, installation hardware kit, SS316 mounting plates and brackets, 1 junction box current source	02104-N-XMAAUS
<b>Searchline Excel Long Range 120 m – 200 m (390 ft.- 650 ft.), ATEX Certified</b>	<b>Part Number</b>
Long range system 120 m to 200 m ATEX complete TXR and RXR system, installation hardware kit, SS316 mounting plates and brackets, 1 junction box current source	02104-N-XLAAUS
<b>ATEX Searchline Excel kits; includes DVC100M, transmitter, receiver, and installation hardware.</b>	
<b>Searchline Excel Short Range 5 m – 40 m (15 ft.- 130 ft.), ATEX Certified</b>	<b>Part Number</b>
Short range system 5 m to 40 m ATEX complete TXR and RXR system, fully wired with flexible conduit, SS316 mounting plates and brackets, 1 DVC100M digital junction box, 1 junction box current source	02104-N-4011
Short range system 5 m to 40 m ATEX complete TXR and RXR system, fully wired with flexible conduit, SS316 mounting plates and brackets, 1 DVC100M digital junction box, 1 junction box current sink	02104-N-4041
<b>Searchline Excel Medium Range 40 m – 120 m (130 ft.- 390 ft.), ATEX Certified</b>	<b>Part Number</b>
Medium range system 40 m to 120 m ATEX complete TXR and RXR system, fully wired with flexible conduit, SS316 mounting plates and brackets, 1 DVC100M digital junction box, 1 junction box current source	02104-N-4021
Medium range system 40 m to 120 m ATEX complete TXR and RXR system, fully wired with flexible conduit, SS316 mounting plates and brackets, 1 DVC100M digital junction box, 1 junction box current sink	02104-N-4051
<b>Searchline Excel Long Range 120 m – 200 m (390 ft.- 650 ft.), ATEX Certified</b>	<b>Part Number</b>
Long range system 120 m to 200 m ATEX complete TXR and RXR system, fully wired with flexible conduit, SS316 mounting plates and brackets, 1 DVC100M digital junction box, 1 junction box current source	02104-N-4031
Long range system 120 m to 200 m ATEX complete TXR and RXR system, fully wired with flexible conduit, SS316 mounting plates and brackets, 1 DVC100M digital junction box, 1 junction box current sink	02104-N-4061

# Searchline Excel (continued)

## Calibrations Table 1: Excel Calibration Gas Table. Additional Charge for Alternate Calibrations.

	Part Number
Methane (CH <sub>4</sub> ) / LEL.m (standard calibration)	2104D5026
Ethane (C <sub>2</sub> H <sub>6</sub> ) / LEL.m	2104D5002
Propane (C <sub>3</sub> H <sub>8</sub> ) / LEL.m	2104D5003
Butane (C <sub>4</sub> H <sub>10</sub> ) / LEL.m	2104D5004
Pentane (C <sub>5</sub> H <sub>12</sub> ) / LEL.m	2104D5005
Ethylene (C <sub>2</sub> H <sub>4</sub> ) / LEL.m (standard calibration)	2104D5021
Propylene (C <sub>3</sub> H <sub>6</sub> ) / LEL.m	2104D5022
Butadiene (C <sub>4</sub> H <sub>6</sub> ) / LEL.m	2104D5023

## Alignment Kits For Use With XNX™ Universal Transmitter

	Part Number
Short range Excel and XNX alignment and conformity kit including telescope, carry case and test filters (no SHC1)	02104-N-4006X
Long/medium range Excel and XNX alignment and conformity kit including telescope, carry case and test filters (no SHC1)	02104-N-4007X

## Searchline Excel Alignment Kits For Use With DX100

	Part Number
Short range alignment and conformity kit including handheld interrogator, telescope, carry case and test filters for ATEX approved systems	02104-N-4006
Long range alignment and conformity kit including handheld interrogator, telescope, carry case and test filters for ATEX approved systems	02104-N-4007
Short range alignment and conformity kit including handheld interrogator, telescope, carry case and test filters for UL approved systems	02104-N-5006
Long range alignment and conformity kit including handheld interrogator, telescope, carry case and test filters for UL approved systems	02104-N-5007
Short range alignment and conformity kit including handheld interrogator, telescope, carry case and test filters for CSA approved systems	02104-N-6006
Long and medium range alignment and conformity kit including handheld interrogator, telescope, carry case and test filters for CSA approved systems	02104-N-6007

## Handheld Interrogator and Accessories

	Part Number
Hand held interrogator ATEX certified (4V0 software) for Optima, Optima Plus and Excel	04230-A-1001
Hand held interrogator UL certified (4V0 software) for Optima, Optima Plus and Excel	2104B2351
Hand held interrogator CSA certified (4V0 software) for Optima, Optima Plus and Excel	2104B2354
Hand held EEPROM upgrade (4V0)	2108B1455
SHC calibrator connector system 10 m	2104B6250
SHC calibrator connector system 6 m	2104B6251
SHC calibrator connector system 3 m	2104B6252

## DVC/DX Interfaces

	Part Number
DVC100M junction box ATEX with Modbus capability	2104B6212
DX100M XPROOF junction box UL with Modbus capability	2104B2382

# Searchline Excel (continued)

<b>Installation Accessories</b>	<b>Part Number</b>
Sun/heat shade (deluge cover)	2104D0295
UL/CSA aluminum 6 wire junction box assembly	2441-0022
Conduit assembly for Excel UL certified	2992A0071
Stainless steel enclosure NEMA 4X 3/4 in. NPT UL	0230-0069
Upgrade to stainless steel glands	02104-N-9870
Upgrade to nickel plated glands	02104-N-9880

<b>Gas Test Equipment</b>	<b>Part Number</b>
Excel test filters kit type A, B, C, D, E, F, G, H and manual	2104N2999
Excel test filter manual	2104M0523
Gassing cell	2104B2326

<b>Spares</b>	<b>Part Number</b>
Short range telescope	2104B2391
Medium / long range telescope	2104B2322
Short range alignment case	210-190-003
Searchline Excel isolation kit short range	2104B0300
Searchline Excel isolation kit medium/long range	2104B0310
Mounting bracket short range and insul. kit	2104B2301
Mounting bracket long range and insul. kit	2104B2302
Mounting plate	2104D0237

# Searchline Excel (continued)

Spare Transmitters	Part Number
Short range receiver standard version, ATEX	2104B2111
Short range receiver source, UL	2104B3101
Short range receiver source, INMETRO	2104B3501
Short range receiver source, CSA	2104B3301
Short range receiver sink, UL	2104B3102
Short range receiver sink, INMETRO	2104B3502
Short range receiver sink, CSA	2104B3302
Short range receiver sink, ATEX	2104B2112
Short range transmitter, UL	2104B3001
Short range transmitter, INMETRO	2104B3401
Short range transmitter, CSA	2104B3201
Short range transmitter, ATEX	2104B2071
Medium range receiver source, UL	2104B3111
Medium range receiver source, INMETRO	2104B3511
Medium range receiver source, CSA	2104B3311
Medium range receiver source, ATEX	2104B2131
Medium range receiver sink, UL	2104B3112
Medium range receiver sink, INMETRO	2104B3512
Medium range receiver sink, CSA	2104B3312
Medium range receiver sink, ATEX	2104B2132
Medium range transmitter, UL	2104B3011
Medium range transmitter, INMETRO	2104B3411
Medium range transmitter, CSA	2104B3211
Medium range transmitter, ATEX	2104B2081
Long range receiver standard version, ATEX	2104B2151
Long range receiver source, UL	2104B3121
Long range receiver source, INMETRO	2104B3521
Long range receiver source, CSA	2104B3321
Long range receiver sink, UL	2104B3122
Long range receiver sink, INMETRO	2104B3522
Long range receiver sink, CSA	2104B3322
Long range receiver sink, ATEX	2104B2152
Long range transmitter, UL	2104B3021
Long range transmitter, INMETRO	2104B3421
Long range transmitter, CSA	2104B3221
Long range transmitter, ATEX	2104B2091