

SEC Millenium Hawk

Infrared Hydrocarbon Gas Detector



Performance Approved to CSA Standards.

Features

- Reliable infrared sensing technology
- Virtually maintenance free
- Low cost of ownership, greater than 10 year life expectancy
- Immune to poisoning and etching
- Designed for harsh environments
- Explosion proof
- Rugged stainless steel construction
- Fast response time
- Smart calibration
- Patented self-compensating optics
- No moving parts
- Heated optical chamber
- Low power consumption
- Operates in constant hydrocarbon background
- Operates in anaerobic atmospheres
- Fault indications for all failure states
- Span calibrations are not required. Zero calibration recommended every 6 months
- 4-20 mA Output
- Standard 0 to 100% LEL detection range, 100% By Volume ranges available
- Compatible with the Universal Display Module (UDM series) or the Sec 3100 & SEC 3120 Display Modules
- Built in calibration nipple

Applications

The SEC Millenium Hawk Hydrocarbon Detectors are designed to be used as an upgrade in the same applications where catalytic bead sensors have been applied.

- Refineries
- Drilling and production platforms
- Fuel loading facilities
- Oil well logging
- LNG/LPG processing and storage facilities
- Gas turbines
- Chemical plants
- Compressor stations
- Wastewater treatment facilities
- Transportation facilities

Operation / Description

SEC Millenium Hawk is a complete self contained optical hydrocarbon gas detector. The sensing and reference elements are self-compensating for optical integrity and other signal inhibitors. The industry standard 4-20 mA analog output provides gas level readings plus fault diagnostic and calibration signals.

Specifications

Model: Sensor Electronics Corporation | SEC MILLENIUM Hawk Infrared Hydrocarbon Gas Detector

Available Gases:

Propane	Propylene	Methane
n-Butane	Ethane	Gasoline
Ethanol	Isopropyl Alcohol	Ethylene
Methanol	Aeromatic 150	Pentane
Hexane	Cyclopentane	Isobutane
Toluene	Methyl Amyl Ketone	P-Xylene
MEK	Tert-Butyl Acetate	

Please note that this list is not all-inclusive. For more information please contact Protek Safety & Controls Ltd.

Detection Method:

Diffusion - (requires a minimum of 1 liter per minute flow rate.)

Output (analog):

4-20 mA (Source type), max. 1000 Ohm load at 24 VDC supply voltage

Response Time:

T50 < 5 seconds T90 < 10 seconds

Weight: 5 lbs. (2.3 kg.)

Construction: 316 stainless steel

Accuracy: +/- 3% LEL from 0% to 50% LEL
+/- 5% LEL from 51% to 100% LEL

Temperature Range:

Certified Temperature Range: -40° to +70°C
Factory Function Tested: -55° to +70°C
0 to 99% RH (non-condensing)

Operating Voltage Range: 18-32Vdc

Power Consumption: 3.6 Watts Max

Max Current Draw:

at 24VDC Average: 85 mA Peak: 150 mA
at 18VDC Average: 135 mA Peak: 200 mA

Approvals:

C22.2/UL 60079-29-1 Performance Tested
Class I, Div 1 | Groups B, C, D | T5



Installation Category: Cat. I, Pollution Degree 2

Gas Type	Range	Part Numbers	Warranty Period
Methane:	(0-100% LEL)	49000000100-L12E	10 Years
Methane:	(0-50% LEL)	49000000050-L12E	10 Years
Methane:	(0-100% VOL)	49000000100-V12E	10 Years
Propane:	(0-100% LEL)	49000100100-L12E	10 Years
Propane:	(0-100% VOL)	49000100100-V12E	10 Years
Propane:	(0-100% UEL)	49000100100-U12E	10 Years
Aeromatic 150:	(0-100% LEL)	49000200100-L12E	10 Years
Ethane:	(0-100% LEL)	49000300100-L12E	10 Years
Ethanol:	(0-100% LEL)	49000400100-L12E	10 Years
Ethylene:	(0-100% LEL)	49000500100-L12E	10 Years
Gasoline:	(0-100% LEL)	49000600100-L12E	10 Years
Hexane:	(0-100% LEL)	49000700100-L12E	10 Years
Isobutane:	(0-100% LEL)	49000800100-L12E	10 Years
Isopropyl:	(0-100% LEL)	49000900100-L12E	10 Years
Methanol:	(0-100% LEL)	49001000100-L12E	10 Years
N-Butane:	(0-100% LEL)	49001100100-L12E	10 Years
Pentane:	(0-100% LEL)	49001200100-L12E	10 Years
Methyl Amyl Ketone:	(0-100% LEL)	49001400100-L12E	10 Years
Cyclopentane:	(0-100% LEL)	49002500100-L12E	10 Years
Propylene:	(0-100% LEL)	49002900100-L12E	10 Years
Toluene:	(0-100% LEL)	49003700100-L12E	10 Years
P-Xylene:	(0-100% LEL)	49004000100-L12E	10 Years
Tert-Butyl Acetate:	(0-100% LEL)	49003400100-L12E	10 Years

Status	Output
Normal Mode:	4-20 mA
Unit Fault:	0.0 mA
Reference Fault:	0.2 mA
Analytical Fault:	0.4 mA
Unit Warm Up:	0.8 mA
Optics Fault:	1.0 mA
Zero Drift Fault:	1.2 mA
Calibration Fault:	1.6 mA
Unit Spanning:	2.0 mA
Unit Zeroing:	2.2 mA
Zero Gas Level:	4.0 mA
10% LEL:	5.6 mA
25% LEL:	8.0 mA
50% LEL:	12.0 mA
75% LEL:	16.0 mA
100% LEL:	20.0 mA
Over Range:	>20.0 mA



UDM-002



UNV-SEPKIT-001



UNV-SEPKIT-004
UDM-MWO-SEPKIT

*Unit Status Chart

Accessories	Part Numbers
Single Channel Display	UDM-001
Dual Channel Display	UDM-002
Sensor Separation Kit	UNV-SEPKIT-001
-55°C Sensor Separation Kit	UNV-SEPKIT-004
Single OR Dual Display Multi Wire Option(s)*	UDM-MWO-00X-X
2-3 Wire Retro Fit Sensor Separation Kit**	UDM-MWO-SEPKIT

*See UDM-MWO Literature for part numbers

2-3 Wire Retro Fit Sensor Separation Kit **ONLY to be used with **UDM-MWO Series**.

