

# SEC Millenium Hawk

## Infrared Carbon Dioxide Gas Detector



### Features

- Reliable infrared sensing technology
- Virtually maintenance free
- Low cost of ownership, greater than 15 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
- Compact and light weight
- Operates in anaerobic atmospheres
- Fault indications for all failure states
- Span calibrations are not required. Zero calibration recommended every 6 months
- 4-20 v mA Output
- Many 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 Carbon Dioxide Gas Detectors are designed to be used where a rugged, explosion proof, ultra reliable device is required.

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| <ul style="list-style-type: none"> <li>• Gas Storage</li> <li>• Injection Oil Recovery</li> <li>• Industrial Process Control</li> <li>• Food Processing/Packaging</li> <li>• Greenhouses</li> <li>• Bottling Plants</li> </ul> | <ul style="list-style-type: none"> <li>• Water Industry</li> <li>• Environmental Chambers</li> <li>• Laboratories</li> <li>• Breweries / Wineries</li> <li>• HVAC</li> <li>• Engine Test Cells</li> </ul> |
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### Operation / Description

SEC Millenium Hawk Carbon Dioxide Gas Detectors is a single dual source wavelength instrument. The sensing and reference elements are self-compensating for optical integrity and other signal inhibitors. The industry standard 4-20 mA analog output provides remote alarm, fault and calibration signals.

# Specifications

**Model:** Sensor Electronics Corporation | SEC Millenium Hawk Carbon Dioxide Gas Detector

**Detection Method:** Diffusion (1 liter per minute sample flow rate required)

**Output (analog):** 4-20 mA (source type), max. 1000 Ohm load at 24 VDC supply voltage

**Weight:** 5 lbs. (2.3 kg.)

**Construction:** 316 stainless steel

**Accuracy:** +/- 3% of 0 to 50% Full Scale  
+/- 5% of 51 to 100% Full Scale

**Temperature Range:**  
Certified Temperature Range: -40°C to +70°C  
Factory Function Tested: -55°C to +70°C  
0 to 99% RH (no-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:**  
Class I, Div 1 | Groups B, C, D | T5



**Installation Category:** Cat. I, Pollution Degree 2

Gas Type	Range	Part Numbers	Warranty Period
Carbon Dioxide	(0-0.5% VOL)	4900135000-M12E	10 Years
Carbon Dioxide	(0-1% VOL)	4900130001-V12E	10 Years
Carbon Dioxide	(0-2% VOL)	4900130002-V12E	10 Years
Carbon Dioxide	(0-5% VOL)	4900130005-V12E	10 Years

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



UDM-002



UNV-SEPKIT-001



UNV-SEPKIT-004  
UDM-MWO-SEPKIT

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
Calibration Cup	CC/SG-02

\*See UDM-MWO Literature for part numbers

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

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% Full Scale:	5.6 mA
25% Full Scale:	8.0 mA
50% Full Scale:	12.0 mA
75% Full Scale:	16.0 mA
100% Full Scale:	20.0 mA
Over Range:	>20.0 mA

\*Unit Status Chart

