The cGas Detector is a one or two gas channel digital transmitter that offers greater flexibility at a lower cost with customized sensor combinations and specialized options for adding only the functionality you need. It is ideal for monitoring toxic, combustible and refrigerant gases in commercial and light industrial, non-hazardous (non-explosion rated) environments.

Output is user selectable in the field with your choice of BACnet® or Modbus® for communicating with a Controller or a Building Automation System. Pre-calibrated sensors with true Plug & Play Smart Sensor technology makes replacing sensors quick and easy.

Powered by 24 VDC or ground reference AC, the digital cGas Detector has an LCD display, temperature compensation and the firmware and configuration can be upgraded in the field using the USB connection. Specialized optional features include, relative humidity and temperature monitoring, low temperature operation and wash-down / water spray protection.

The digital cGas Detector comes in a standard water / dust tight, corrosion resistant enclosure (drip proof) with the optional, factory installed splash guard (Option -S) the enclosure is IP54 rated and provides protection in water spray or wash down applications.

**APPLICATIONS**

- Parking Garages/Car Parks
- Vehicle Repair Shops
- Ice Arenas
- Commercial Pools
- Battery Charging Rooms
- Manufacturing Plants
- Maintenance Facilities
- ... and many more

**KEY FEATURES**

- 1 or 2 internal gas channel configurations
- Field configurable BACnet® MS/TP RS-485 or Modbus® RTU RS-485 digital output signal
- Easy Plug & Play Smart Sensor replacement at end of life, comes pre-calibrated
- Bright LCD display
- USB port for configuration changes and firmware upgrades
- Optional RH & Temperature sensor (Option -RHT)
- Optional low temperature operation package (Option -LT)
- Optional factory installed splash guard (Option -S or Option -SN)
- Standard water / dust tight, corrosion resistant enclosure (drip proof)
- RoHS compliant circuit board
- Sensor Calibration Extending Firmware (CEF) for parking applications

**TECHNICAL SPECIFICATIONS**

**TARGET GAS**

Electrochemical - Ammonia, Carbon Monoxide, Chlorine, Chlorine Dioxide, Ethylene, Ethylene Oxide, Formaldehyde, Fluorine, Hydrogen, Hydrogen Sulphide, Hydrogen Chloride, Hydrogen Cyanide, Hydrogen Fluoride, Nitrogen Dioxide, Nitric Oxide, Oxygen, Ozone, Phosphine, Silane, Sulphur Dioxide

Combustible (catalytic) - Hydrogen, Methane, Propane


PID - TVOC

**MECHANICAL**

Enclosure ABS / Polycarbonate, IP54 rated with splash guard installed, copper coated interior to reduce RF interference

Weight 400 g / 14 oz

Size 127 x 127 x 76 mm / 5.0 x 5.0 x 3.0 inches

**USER INTERFACE**

Display (standard) 2-line by 16 character graphic LCD, black on green

Operating Temp: 0°C to 40°C / 32°F to 104°F

Display (low temp) 2-line by 16 character OLED display, yellow on black

Operating Temp: -40°C to 40°C / -40°F to 104°F

Push Buttons Initiate calibration and menu options with internal UP, DOWN and ENTER push buttons

USB Port Internal port for USB memory stick for field configuration updates / firmware upgrades

**INPUT / OUTPUT**

Output (configurable) BACnet® MS/TP (version 1 rev 14) RS-485 or Modbus® RTU (version 1.1b3) RS-485

**INPUT / OUTPUT**

Output (user configuratable) BACnet® MS/TP (version 1 rev 14) RS-485 or Modbus® RTU (version 1.1b3) RS-485

**ELECTRICAL**

Power Requirement 16-30 VDC, 3W, Class 2

12-27 VAC, 50-60 Hz, 3 VA, Class 2

Wiring VDC or VAC (ground referenced) 4-conductor shielded, 16 AWG stranded within conduit, network wiring (daisy-chain)

Fuse(s) Automatic resetting thermal

Note: Drawing above is shown with the splash guard (Option -S). Without the splash guard, the thickness of the unit is 76 mm / 3.0". With the sticky gas splash guard (Option -SN), the thickness of the unit is 123 mm / 4.86".
## TECHNICAL SPECIFICATIONS... continued

### ENVIRONMENTAL

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>Standard</th>
<th>0°C to 50°C (32°F to 122°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>with Option -LT</td>
<td>-40°C to 50°C (40°F to 122°F)</td>
<td></td>
</tr>
</tbody>
</table>

| Operating Humidity   | 15 - 90% RH non-condensing |

### CERTIFICATION

- Conforms to: CSA-C22.2 No. 205-12, UL508 (Edition 18):2018
- Conforms to: EMC Directive 2014/35/EU, EN 50270:2015, Type 1, EN61010
- Conforms to: FCC. This device complies with Part 15 of the FCC Rules.

### PRODUCT CODES

#### Type A: Single Channel (One Internal Solid State Sensor)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Lifespan</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGAS-D-SR22</td>
<td>±2yr</td>
</tr>
<tr>
<td>CGAS-D-SR134A</td>
<td>±2yr</td>
</tr>
<tr>
<td>CGAS-D-SR402A</td>
<td>±2yr</td>
</tr>
<tr>
<td>CGAS-D-SR404A</td>
<td>±2yr</td>
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<tr>
<td>CGAS-D-SR407C</td>
<td>±2yr</td>
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<tr>
<td>CGAS-D-SR410A</td>
<td>±2yr</td>
</tr>
<tr>
<td>CGAS-D-SR422D</td>
<td>±2yr</td>
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<tr>
<td>CGAS-D-SR438A</td>
<td>±2yr</td>
</tr>
<tr>
<td>CGAS-D-SR507A</td>
<td>±2yr</td>
</tr>
</tbody>
</table>

#### Type A: Single Channel (One Internal Catalytic Sensor)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Lifespan</th>
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<tr>
<td>CGAS-D-STVOC</td>
<td>±5yr</td>
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</table>

#### Type A: Single Channel (One Internal PID Sensor)

<table>
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<tr>
<th>Part Number</th>
<th>Lifespan</th>
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<tbody>
<tr>
<td>CGAS-D-SPL</td>
<td>±3yr</td>
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<tr>
<td>CGAS-D-SPH</td>
<td>±3yr</td>
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</table>

#### Type E: Dual Channel (Two Internal Electrochemical Sensors)

<table>
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<tr>
<th>Part Number</th>
<th>Lifespan</th>
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<tbody>
<tr>
<td>CGAS-D-LCO-N2</td>
<td>±6yr</td>
</tr>
<tr>
<td>CGAS-D-LCO-O2</td>
<td>±6yr</td>
</tr>
<tr>
<td>CGAS-D-LCO-C2H4</td>
<td>±6yr</td>
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<tr>
<td>CGAS-D-LCO-H2S</td>
<td>±6yr</td>
</tr>
<tr>
<td>CGAS-D-LCO-N0</td>
<td>±6yr</td>
</tr>
</tbody>
</table>

#### OPTIONS (Factory installed) Add at the end of the “Part Number” above.

- LT: Low temperature package with OLED display and internal heater for cold environment applications down to -40°C / -40°F
- RHT: RH & Temperature sensor (available with CO models only)
- S: Splash Guard (for non sticky gases)
- SN: Splash Guard for sticky gas sensors

### Accessories

- CET-SGC: Calibration Adapter Clip for Option -S
- CET-SN-CAP: Replacement Calibration Adapter Slide Cap for Option -SN
- CET-715A-C1: Calibration Kit for 17, 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder
- DUCT KIT 301A: Metal probe assembly for fixed system, two lengths of 1.23 m / 4 ft tubing, adapter plug and dust filter (available for use with select gases)
- PID-KITA: Maintenance Kit for cleaning PID sensor bulb
- SCS-8000-RSG: Metal protective guard, small, 16 gauge
- SCS-8000-RSG-WSG: Metal protective guard, small, 16 gauge, with splash cover for O₂, HCl and Cl₂ sensors

Other gases may be available upon request.