

# C-Guard™

## Digital gas detector



GasTech Australia has released the latest series of GasTech's digital gas detectors the C-Guard™. This new style of gas detector uses an advanced processor and program logic.

The main application for the C-Guard™ range is commercial use car Park, and HVAC environment. This market requires a detector that is extremely reliable and very quick to calibrate.

Our engineers have developed high end electronics and a program that monitors the sensor's outputs and is tailored to and pre-programmed for many different gas types. The program and electronics process the sensor's output trends and calculates accurate and stable readings. This is transmitted back to the processor using the industry standard 4-20mA.

### **Mechanical design:**

One card to suit all applications is the philosophy. Many of our customers are in remote locations around the world and holding stock for all the different kinds of detectors and ranges that they have on site is expensive and difficult to manage. In the C-Guard™ design this card had to be easily configured for the different gasses, ranges, sensors styles and must have enough program memory to hold the logic for each type of gas. Our engineers were able to achieve all this, with enough resources still available to implement many future features. Each card will be simple to upgrade as needs change.

Housing is an IP 65 strengthened high impact polymer, which is UV stable and is virtually indestructible. The design of the housing was to meet the most challenging conditions encountered. Grey coloured to blend in with the walls in car park application.

### **End user features:**

No tool calibration or set up. No screwdrivers, no meters, no special programming tools required to calibrate to comply to AS1668.2

### **No alarms during calibration:**

When in the calibration mode the C-Guard™ locks the output signal at zero gas reading until the calibration process is finished. Our engineers have implemented a fail-safe logic to maintain constant monitoring.

### **Zero gas activation test:**

The C-Guard™ logic has a special activation mode. Once entering this mode the mA output is raised to 12mA for 5 minutes. This allows activation of vent fans or alarms to test the system without wasting expensive test gasses. Again bringing down the total ownership costs.

**Lowest cost of ownership**

**45 seconds to calibrate**

**Zero stability logic**

**One man calibration**

**AS1668.2 Auto test**

**Non intrusive calibration**

**No alarm calibration**

**Zero gas activation test**

**Simple user options**

**One board does all**

**No tool calibration**

**Fully programmable processor control**

**Vandal resistant high impact housing**

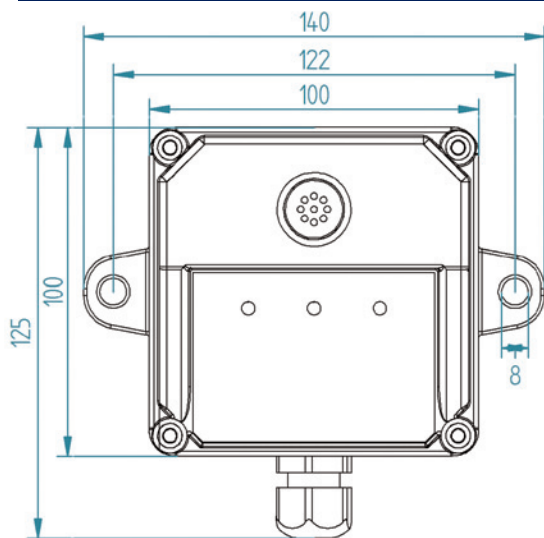
**Sensors protection**

**Water resistant IP 65 design**

**Two year warranty**

# C-Guard™

## Sensor & 4-20mA Transmitter Specifications



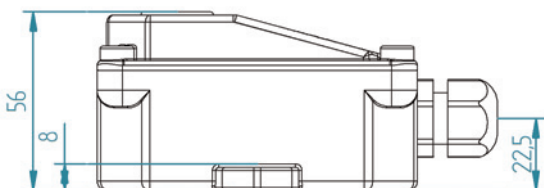
### Typical range of Gases Detected

Gas	Range	Auto Cal Gas
Carbon Monoxide (CO)	0 to 100 ppm	100ppm
Carbon Monoxide (CO)	0 to 150 ppm	100ppm
Carbon Monoxide (CO)	0 to 200 ppm	100ppm
Nitrogen Dioxide (NO <sub>2</sub> )	0 to 10 ppm	5 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	0 to 20 ppm	10 ppm
Hydrogen Sulphide (H <sub>2</sub> S)	0 to 100 ppm	25 ppm
Hydrogen Cyanide (HCN)	0 to 100 ppm	10 ppm
Sulphur Dioxide (SO <sub>2</sub> )	0 to 10 ppm	5 ppm
Ammonia (NH <sub>3</sub> )	0 to 100 ppm	25 ppm
Refrigerants R22/R134a/	0 to 1000 ppm	500 ppm

Others available on request

analogue Output:	Two wire 4-20mA / 3 Wire 4-20 mA (Refrigerants)
Indication:	3 LED indication of status
Input Power:	10-30VDC
Response Time:	90% full scale response in less than 30 seconds sensor dependent
Operating Temperature:	-20°C to +50°C
Humidity Range:	0-95% non condensing
Accuracy:	±5% of reading
Repeatability:	±1% of reading
Sensor style:	4 series plug in sensors, Semi-conductor Sensor-refrigerants
Calibration:	Non intrusive Automatic, no screwdrivers or meters needed
Drift:	Less than 5% signal loss per year
AS1668.2 test:	5 minutes operation at 12mA output
Weight:	250g
Dimensions:	140mm x 56mm x 100mm (125 including cable gland)
Enclosure:	High impact UV stable Chemical resistant Nylon
IP rating:	IP65
Warranty:	2 Years on sensor and electronics for CO & H2S 1 year on all other sensors

Part Number:	65-1020-CO	C-Guard CO detector 0-100ppm
	65-1020-CO-1	C-Guard CO detector 0-150ppm
	65-1020-CO-2	C-Guard CO detector 0-200ppm
	65-1020-H2S	C-Guard H2S detector 0-100ppm
	65-1020-HCN	C-Guard HCN detector 0-100ppm
	65-1020-NH3	C-Guard NH3 detector 0-100ppm
	65-1020-NO2	C-Guard NO2 detector 0-10ppm
	65-1020-NO2-1	C-Guard NO2 detector 0-20ppm
	65-1020-SO2	C-Guard SO2 detector 0-10ppm
	65-1020-R	C-Guard R22/R134a/R410 0-1000ppm



Distributed By

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