C-GUARD

Digital gas detector

Gastech's C-Guard uses an advanced processor and program logic, making the C-Guard the perfect instrument for commercial and budget sensitive non-hazardous area applications.

The most popular application for the C-Guard range is commercial uses, Car Park, and HVAC applications. 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 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. It is also 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

Once into 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 gases. Again bringing down the total ownership costs.
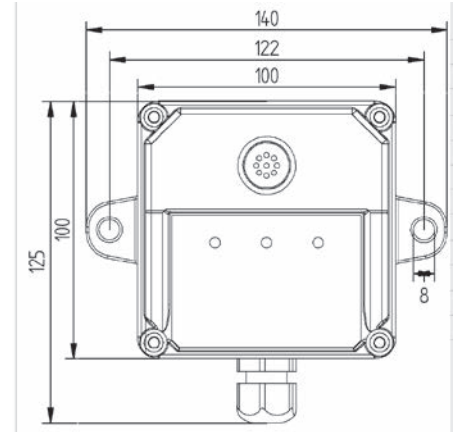
KEY FEATURES

- **Lowest cost of ownership**
- **45 seconds to calabarate**
- **Zero stability logic**
- **One person 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 proof high impact housing**
- **Sensor protection**
- **Water resistant IP 65 design**
- **Two year warranty**

C-GUARD

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_2)	0 to 10 ppm	5 ppm
Nitrogen Dioxide (NO_2)	0 to 20 ppm	10 ppm

SPECIFICATIONS
Specifications subject to change without notice

Analogue Output	Two wire 4-20mA
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 1 year on all other sensors
Part Number	65-1020-CO C-Guard CO detector 0-100pm 65-1020-CO-1 C-Guard CO detector 0-150pm 65-1020-CO-2 C-Guard CO detector 0-200pm 65-1020-NO2 C-Guard NO_2 detector 0-10ppm 65-1020-NO2-1 C-Guard NO_2 detector 0-20ppm