



The cGas Detector is a digital, one or two channel gas detection 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. Plug & Play Smart Sensor technology makes replacing sensors quick and easy, and replacement sensors arrive pre-calibrated.

Powered by 24VDC or ground reference AC, the digital cGas Detector has an LCD display, temperature compensation, thermal resetting fuses 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 ABS / polycarbonate enclosure with a hinged, secured door. With the optional, factory installed splash guard the enclosure is IP54 rated and provides protection in water spray or wash down applications.

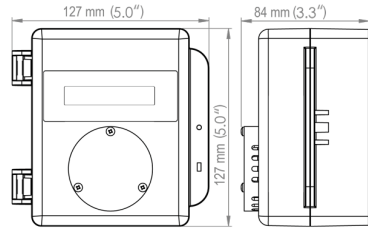
KEY FEATURES

- » 1 or 2 internal channel configurations
- » Field configurable BACnet® MS/TP RS-485 or Modbus® RTU RS-485 digital output signal
- » True Plug & Play Smart Sensor Technology, easy replacement at end of life
- » Bright LCD display
- » USB port for firmware upgrades
- » Optional RH & Temperature sensor (available with CO models only)
- » Optional low temperature operation package
- » Optional factory installed splash guard
- » Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed.
- » RoHS compliant circuit board

APPLICATIONS

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

TECHNICAL DRAWING



Note: Drawings above are shown with the optional splash guard. Without the splash guard, the thickness of the unit is 76 mm (3.0").

TECHNICAL SPECIFICATIONS

TARGET GAS

Electrochemical - Ammonia, Carbon Monoxide, Chlorine, Ethylene, Chlorine Dioxide, 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

Solid State - R22, R134A, R402A, R404A, R407C, R410A, R422D, R438A, R507A, TVOC

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) (Option -LT)	2-line by 16 character, 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 connection for field firmware/configuration upgrades

INPUT / OUTPUT

Output (user configurable)	BACnet® MS/TP (version 1 rev 14) RS-485 or Modbus® RTU (version 1.1b3) RS-485
RH and Temperature (Option -RHT)	Relative humidity and temperature sensor

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)
Fuses	Automatic resetting thermal

cGas DETECTOR Digital Transmitter

TECHNICAL SPECIFICATIONS... continued

ENVIRONMENTAL

Operating Temperature	Standard	0°C to 40°C (32°F to 104°F)
	with Option -LT	-40°C to 40°C (-40°F to 104°F)
Operating Humidity	15 - 90% RH non-condensing	

CERTIFICATION

Conforms to: pending CSA / UL
Conforms to: pending EMC / EN
Conforms to: pending FCC.

PRODUCT CODES

Part Number		Lifespan
<i>Type A: Single Channel (One Internal Electrochemical Sensor)</i>		
CGAS-D-NH3	Ammonia (NH ₃) sensor (0 - 500 ppm)	2 yrs
CGAS-D-LCO	Carbon Monoxide (CO) sensor (0 - 200 ppm)	6+ yrs
CGAS-D-CL2	Chlorine (Cl ₂) sensor (0 - 5 ppm)	3 yrs
CGAS-D-ClO2	Chlorine Dioxide (ClO ₂) sensor (0 - 1 ppm)	2 yrs
CGAS-D-C2H4	Ethylene (C ₂ H ₄) sensor (0 - 200 ppm)	2 yrs
CGAS-D-EETO	Ethylene Oxide (C ₂ H ₄ O) sensor (0 - 20 ppm)	2 yrs
CGAS-D-F2	Fluorine (F ₂) sensor (0 - 1 ppm)	1-2yrs
CGAS-D-CH2O	Formaldehyde (CH ₂ O) sensor (0 - 5 ppm)	2 yrs
CGAS-D-EH2	Hydrogen (H ₂) sensor (0 - 2,000 ppm)	2 yrs
CGAS-D-H2S	Hydrogen Sulphide (H ₂ S) sensor (0 - 50 ppm)	2+ yrs
CGAS-D-HCL	Hydrogen Chloride (HCl) sensor (0 - 30 ppm)	2 yrs
CGAS-D-HCN	Hydrogen Cyanide (HCN) sensor (0 - 30 ppm)	2 yrs
CGAS-D-HF	Hydrogen Fluoride (HF) sensor (0 - 10 ppm)	1-2yrs
CGAS-D-NO	Nitric Oxide (NO) sensor (0 - 100 ppm)	2 yrs
CGAS-D-NO2A	Nitrogen Dioxide (NO ₂) sensor (0 - 10 ppm)	3 yrs
CGAS-D-O2	Oxygen (O ₂) sensor (0 - 25% volume)	3 yrs
CGAS-D-O3	Ozone (O ₃) sensor (0 - 2 ppm)	2 yrs
CGAS-D-PH3	Phosphine (PH ₃) sensor (0 - 5 ppm)	2 yrs
CGAS-D-SiH4	Silane (SiH ₄) sensor (0 - 20 ppm)	2 yrs
CGAS-D-SO2	Sulphur Dioxide (SO ₂) sensor (0 - 20 ppm)	2+ yrs

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

CGAS-D-SR22	Refrigerants (R22) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR134A	Refrigerants (R134A) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR402A	Refrigerants (R402A) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR404A	Refrigerants (R404A) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR407C	Refrigerants (R407C) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR410A	Refrigerants (R410A) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR422D	Refrigerants (R422D) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR438A	Refrigerants (R438A) sensor (0 - 2,000 ppm)	5 yrs
CGAS-D-SR507A	Refrigerants (RS07A) sensor (0 - 2,000 ppm)	5 yrs

PRODUCT CODES... continued

CGAS-D-STVOC	TVOCs sensor (0 - 500 ppm)	5 yrs
<i>Type A: Single Channel (One Internal Catalytic Sensor)</i>		
CGAS-D-CH2	Hydrogen (H ₂) sensor (0 - 100% LEL)	5 yrs
CGAS-D-CCH4	Methane (CH ₄) sensor (0 - 100% LEL)	5 yrs
CGAS-D-C3H8	Propane (C ₃ H ₈) sensor (0 - 100% LEL)	5 yrs

Type A: Single Channel (One Internal PID Sensor)

CGAS-D-SPL	TVOC sensor (0 - 30 ppm)
CGAS-D-SPH	TVOC sensor (0 - 300 ppm)

Type E: Dual Channel (Two Internal Electrochemical Sensors)

CGAS-D-LCO-NO2A	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Nitrogen Dioxide (NO ₂) sensor (0 - 10 ppm)	3 yrs
CGAS-D-LCO-O2	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Oxygen (O ₂) sensor (0 - 25% vol)	3 yrs
CGAS-D-LCO-C2H4	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Ethylene (C ₂ H ₄) sensor (0 - 200 ppm)	2-3 yrs
CGAS-D-LCO-H2S	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Hydrogen Sulphide (H ₂ S) sensor (0 - 50 ppm)	3 yrs
CGAS-D-LCO-NO	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Nitric Oxide (NO) sensor (0 - 100 ppm)	3 yrs
CGAS-D-H2S-SO2	Hydrogen Sulphide (H ₂ S) sensor (0 - 50 ppm) & Sulphur Dioxide (SO ₂) sensor (0 - 20 ppm)	3 yrs

OPTIONS (Factory installed) Add at the end of the "Part Number" above.

LT	Low temperature package with OLED display for cold environment applications down to -40°C / -40°F
RHT	RH & Temperature sensor (only available with CO models)
S	Splash Guard (not available for O ₂ , HCl, Cl ₂ sensors)
SN	Splash Guard for sticky gas sensors (O ₂ , HCl or O ₃) only

ACCESSORIES

CET-SGC	Calibration Adapter Clip for Option -S
CET-SN-CAP	Replacement Calibration Adapter Slide Cap for Option -SN
CET-715A-CK1	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 O ₂ , HCl and Cl ₂ sensors

AVAILABLE OPTIONS CHART

Option -LT	all models
Option -RHT	any model that includes a CO sensor
Option -S	all sensors except Cl ₂ , HCl or O ₃
Option -SN	Cl ₂ , HCl or O ₃ sensors only