



The cGas Detector Transmitter is a low maintenance gas monitoring device designed for use in non-explosion rated commercial applications that require continuous monitoring of combustible alcohol gases and vapours such as methanol and ethanol. It offers one 4-20 mA analog output or a user selectable in the field digital output with your choice of BACnet® or Modbus® for communicating with a Building Automation System or ventilation controller.

Powered by 24 VDC or ground referenced AC, the cGas Detector has an LCD display, temperature compensation and the firmware and configuration can be upgraded in the field using the USB connection. Pre-calibrated sensors with true Plug & Play Smart Sensor technology makes replacing sensors quick and easy.

The 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.

**NOTE:** For use in non-classified areas only. Follow project specifications. If monitoring area is classified, our CXT Explosion Proof products would be a suitable alternative.

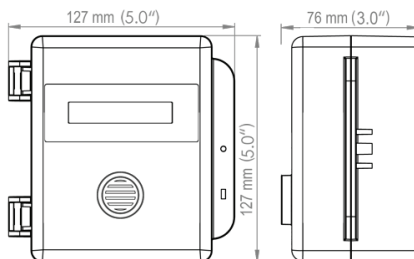
## KEY FEATURES

- » One linear 4-20 mA or 0-10 V analog output or BACnet® MS/TP RS-485 or Modbus® RTU RS-485 digital output
- » Easy Plug & Play Smart Sensor replacement at end of life, comes pre-calibrated
- » Bright LCD display
- » USB port for configuration changes and firmware upgrades
- » Internal 2A SPDT dry contact relay with or without internal buzzer (Option -RBZ or Option -RLY)
- » Optional RH & Temperature sensor (Option -RHT)
- » Optional low temperature operation package (Option -LT)
- » Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed (Option -S)
- » 24 VDC or VAC power (ground referenced)
- » RoHS compliant circuit board

## APPLICATIONS

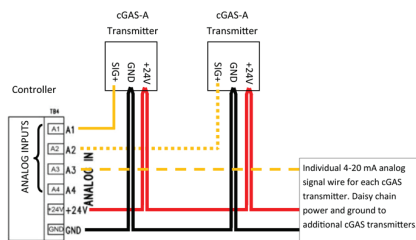
- » Microdistilleries
- » Oil Extraction Rooms
- » Chemical Plants
- » Industrial Solvent Manufacturing
- » Perfume/Beauty Products Manufacturing
- » Sewage Treatment Facilities
- » ... and many more

## TECHNICAL DRAWING

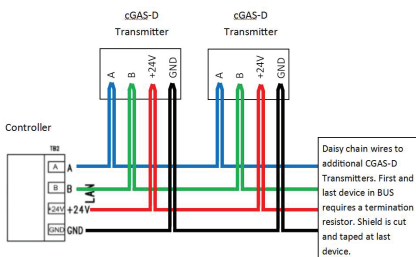


## WIRING DIAGRAMS

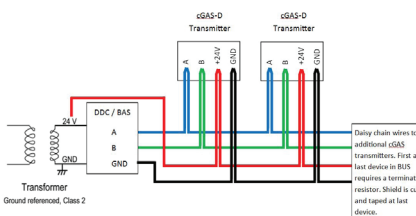
### CGAS-A connected to an FCS Controller (3-wire VDC)



### CGAS-D connected to an FCS Controller (4-wire VDC)



### CGAS-D Connected to a BAS/DDC (4-wire VAC)



### TECHNICAL SPECIFICATIONS

#### MECHANICAL

Enclosure	Black ABS / Polycarbonate, copper coated interior to reduce RF interference, IP54 rated with splash guard installed
Weight	400 g / 14 oz
Size	127 x 127 x 76 mm / 5.0 x 5.0 x 3.0 in

#### USER INTERFACE

Display	2-line by 16 character graphic LCD
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 updated / firmware upgrades

#### INPUT / OUTPUT

Digital Output (CGAS-D models)	BACnet® MS/TP (version 1 rev 14) RS-485 or Modbus® RTU (version 1.1b3) RS-485 (user configurable in the field)
Analog Output (CGAS-A models)	One 4-20 mA output or jumper selectable 0-10 or 2-10 volts output
RH & Temperature (Option RHT)	User selectable units DegC, DegF
Relay & Buzzer (Option -RBZ)	1 SPDT relay rated 30 volts, 2 amp max with internal buzzer rated 90 dB @ 10 cm / 4 in, enable/disable
Relay (Option -RLY)	1 SPDT relay rated 30 volts, 2 amp max

#### ELECTRICAL

Power Requirement	16-30 VDC, 3W, Class 2 12-27 VAC, 50-60 Hz, 3 VA, Class 2
Digital Wiring	VDC or VAC (ground referenced) 4-conductor shielded, 16 AWG stranded within conduit, network wiring (daisy-chain)
Analog Wiring	VAC (ground referenced) 3-conductor shielded 18 AWG (or larger) stranded within conduit
Fuse(s)	Automatic resetting thermal

#### ENVIRONMENTAL

Operating Temperature	0°C to 40°C / 32°F to 104°F
Operating Humidity	15 - 90% RH non-condensing

#### CERTIFICATION

Conforms to: CSA-C22.2 No. 205-12, UL508 (Edition 18):2018
Conforms to: EMC Directive 2014/30/EU EN 50270:2015, Type 1, EN61010
Conforms to: FCC. This device complies with Part 15 of the FCC Rules.
Listed by BTL



ANALOG	PRODUCT CODES	DIGITAL
Single Channel Analog Transmitter	Catalytic Sensor (Lifespan ~5 yrs)	Single Channel Modbus Transmitter
CGAS-A-CC2H60-100	Ethanol or Dimethyl Ether (C <sub>2</sub> H <sub>6</sub> O) sensor (0 - 100% LEL)	CGAS-D-CC2H60-100
CGAS-A-CCH40-100	Methanol (CH <sub>4</sub> O) sensor (0 - 100% LEL)	CGAS-D-CCH40-100

#### OPTIONS (Factory installed)

-LT	Low temperature package with OLED display and internal heater for cold environment applications down to -40°C / -40°F
-RBZ	1 SPDT dry contact relay rated 30 volts, 2 amps max with internal audible alarm rated 90 dB @ 10 cm / 4 in
-RLY	1 SPDT dry contact relay, rated 30 volts, 2 amps max
-RHT*	RH & Temperature sensor (°C or °F)
-S	Splash Guard

#### ACCESSORIES

CET-SGC	Calibration clip for splash guard
CET-715A-CK1	Calibration Kit for 17, 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder
SCS-8000-RSG	Small galvanized metal, 16 gauge protective guard

**\*NOTE:** The analog models have one analog output. If an analog model is ordered with Option -RHT, the information is for display purposes only; the one analog output is used for the gas readings