

# TOXIC AND COMBUSTIBLE GASES

Economical, general purpose gas detector or controller. These detectors provide an early warning of hazardous concentrations of Ammonia, Propane, Methane, Nitrogen Dioxide, Hydrogen and other gases.

**Wall Mount  
Explosion Proof**



**Space ABS  
Enclosure**

## APPLICATION:

To sense and transmit gas concentrations to any compatible electronic analog control, DDC/PLC controller, or automation system. Also provides a visible and audible alarm for high concentrations of gas. Some areas in which the unit may be used include: parking and maintenance garages, ventilation systems, hazardous storage areas, factory work areas, repair facilities, mines and tunnels, arenas and swimming pools, chiller rooms.

## FEATURES:

- Monitors Toxic and Combustible Gases.
- Field replaceable Sensor Module allows for use of spare modules and/or factory calibration without down time.
- Optional LCD for displaying level.
- Optional Audible Alarm.
- Microprocessor based (12 bit accuracy)
- System configuration saved in non-volatile memory.
- Optional relays can be configured with normally open and normally closed contacts.

SPECIFICATIONS	TOXIC – Product # AGD	COMBUSTIBLE GASES – Product # CGD
Gas Detected	Ammonia (NH <sub>3</sub> ), Nitrogen Dioxide (NO <sub>2</sub> ), etc.	Propane, Methane, ISO-Butane, Hydrogen, etc.
Range	See Product Ordering Information	See Product Ordering Information
Area Coverage	160 m <sup>2</sup> (1,500 sq. ft.) / NO <sub>2</sub> 700 m <sup>2</sup> (7,500 sq. ft.)	160 m <sup>2</sup> (1,500 sq. ft.)
Sensing Element	Solid state (NH <sub>3</sub> only) or electrochemical	Solid state or catalytic
Calibration Accuracy	0.5% (12 bit accuracy)	
Sensor Accuracy	For sensor specifications see Product Ordering Information	
Operating Temperature	0°C – 40°C (32°F – 104°F) (call for other temperature applications)	
Humidity Range	0 – 95%	
Manufacturing Process	ISO 9002 certified	
Relays (1 or 2)	DPDT, N.O., or N.C. Contacts rated 5A @ 24 VDC. (two relays not available with 4 – 20mA output)	
Input	24 – 38 VDC / 17 – 27 VAC	
Output Analog Signals	4 – 20mA	
Audible Alarm (optional)	65 dB @ 1 m (3ft)	
LCD Display (optional)	LCD for displaying level	
LEDs	Green and yellow LEDs for normal and failure indication / 10 step LED display	
Field Calibration	Calibration, applying calibration gas standards	

# HAZARDOUS GAS: PRODUCT ORDERING INFORMATION

MODEL	Description							
FGD	Refrigerant Gas Detector (R11, R12, R123, R134a, etc.)							
AGD	Toxic Gas Detector							
CGD	Combustible Gas Detector (Propane, Methane, ISO-Butane and Hydrogen)							
	CODE	Sensing Element and Accuracy		Refrigerant	Toxic	Combustible		
	1	NDIR		3%	N/A	N/A		
	2	Solid state		10%	10%	5%		
	3	Electrochemical		N/A	5%	N/A		
	4	Catalytic		N/A	N/A	3%		
	CODE	Gas Type		Range – Solid State	Other (see above)			
	C	R11 – Refrigerant Gas Detector (FGD)		250 – 2000 PPM	0 – 1000 PPM			
	D	R12 – Refrigerant Gas Detector (FGD)		250 – 2000 PPM	0 – 1000 PPM			
	E	R22 – Refrigerant Gas Detector (FGD)		250 – 2000 PPM	0 – 1000 PPM			
	F	R123 – Refrigerant Gas Detector (FGD)		N/A	0 – 1000 PPM			
	G	R134a – Refrigerant Gas Detector (FGD)		250 – 2000 PPM	0 – 1000 PPM			
	H	Ammonia – Toxic Gas Detector (AGD)		N/A	0 – 100 PPM			
	I	Propane – Combustible Gas Detector (CGD)		0 – 100% LEL	0 – 100% LEL			
	J	Methane – Combustible Gas Detector (CGD)		0 – 100% LEL	0 – 100% LEL			
	K	ISO-Butane-Combustible Gas Detector (CGD)		0 – 100% LEL	0 – 100% LEL			
	L	Hydrogen - Combustible Gas Detector (CGD)		0 – 2.5%	0 – 100% LEL			
	N	Nitrogen Dioxide – Toxic Gas Detector (AGD)		N/A	0 – 10 PPM			
	CODE	Enclosure (see note 1)						
	2	ABS						
	3	Metal Duct Weather Proof						
	4	Metal Space Weather Proof						
	7	Duct Sampling Enclosure, Metal						
	8	Wallmount Explosion Proof Enclosure (Not available for solid state units)						
	9	Space ABS, Weather proof						
	CODE	Circuit Board Relay						
	0	No Relay						
	1	One Relay (DPDT, N.O. or N.C., 5A @ 24 VDC)						
	2	Two Relays (DPDT, N.O. or N.C., 5A @ 24 VDC, FGD1 units only)						
	CODE	Relay (not available with 4 – 20mA output)						
	0	No relay						
	1	One relay (DPDT, N.O. or N.C., 5A @ 24 VDC)						
	2	One relay (DPDT, N.O. or N.C., 5A @ 24 VDC, Fault Relay, FGD1 units only)						
	CODE	Options						
	0	No options						
	1	LCD – Standard on FGD1 units						
	2	PCB Mount Audible Alarm						
	FGD	2	C	2	1	0	1	← Typical Model Number

**Example:** SolidState R11 c/w ABS space, 4-20 mA & relay outputs and LCD display

Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.



Greystone Energy Systems Inc.  
150 English Drive, Moncton, NB  
Canada E1E 4G7

(506) 853-3057 Fax: (506) 853-6014  
e-mail: mail@greystoneenergy.com  
www.greystoneenergy.com

Greystone Energy Systems Inc. is one of North America's largest manufacturers of HVAC sensors and transducers for Building Automation Management Systems. We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9002 certified, assuring our customers of consistent product reliability.

**GREYSTONE IS AN ISO 9002 REGISTERED COMPANY**