REFRIGERANT

Economical, general purpose Refrigerant gas detector or controller. These detectors provide and early warning of hazardous concentrations of R-11, R-12, R-22, R-123, R134a, etc.

APPLICATION:

To sense and transmit Refrigerant 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: cold storage facilities, compressor rooms, arenas, hazardous material storage areas, and ventilation systems.

FEATURES:

- Optional LCD for displaying PPM level.
- Optional Audible Alarm.
- Microprocessor based (12 bit accuracy).
- System configuration saved in non-volatile memory.
- Relays can be configured with normally open or closed contacts.

Wall Mount
Available for Refrigerant,
NDIR Only

SPECIFICATIONS	REFRIGERANT DETECTOR – Product
Gas Detected	R-11, R-12, R-22, R-123, R-134a (R123 only available in NDIR)
Range	See Product Ordering Information
Area Coverage	160 m^2 (1,500 sq. ft.) or 6 meter radius (20 ft. radius)
Calibration Accuracy	0.5% (12 bit accuracy)
Sensor Accuracy	For sensor specifications see Product Ordering Information
Sensing Element	Solid State or NDIR
Operating Temperature	-10°C – 40°C (19°F – 105°F) (call for other temperature applications)
Humidity Range	0 – 95%
Manufacturing Process	ISO 9002 certified
Relay (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 (Solid State), 4-20mA / 0-10 Vdc (NDIR)
Audible Alarm (optional)	65 dB @ 1 m (3 ft.)
LCD Display (optional)	LCD for displaying PPM level
LEDs	Green and yellow LEDs for normal and failure indication / 10 step LED display (Solid State only)
Field Calibration	Remote calibration, applying calibration gas standards

GREYSTONE ENERGY SYSTEMS INC.

HAZARDOUS GAS: PRODUCT ORDERING INFORMATION

MODEL	Description
FGD **AGD** **CGD**	Refrigerant Gas Detector (R11, R12, R123, R134a, etc.) Toxic Gas Detector 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
ACCURACY BY DESIGN

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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.

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