

CGSR-NDIR

Datasheet

NDIR Refrigerant Gas Detector
Designed for VRF Systems



**24VAC or DC
Power Input**



**Standalone
Detector or
Used with an
CGS Controller**



**LED & Audible
Alarm**



**BMS/BAS
MODBUS RS485
Communications**



**Modern & Compact
Design**



**Alarm Relay
Dry Contact**



**Plug & Play
Installation**

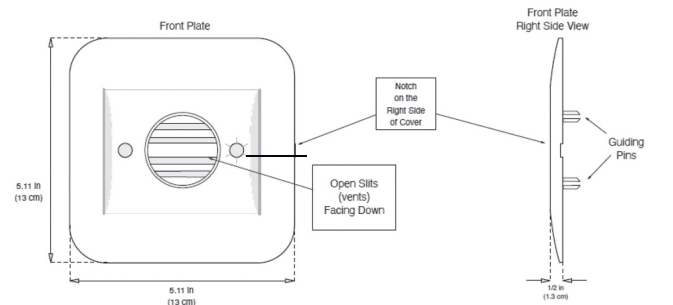


**In-Built
Audible Alarm**

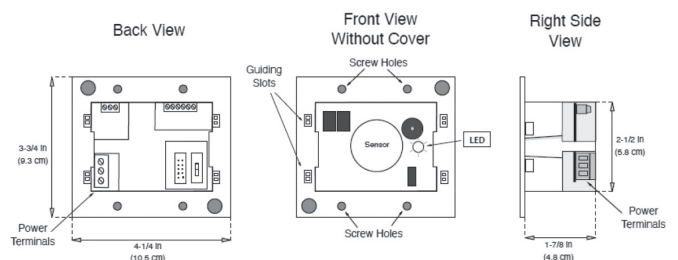
Product Overview

The CGS VRF Refrigerant gas leak detector with NDIR sensor technology meets the need for a cost-effective and reliable solution to continuously monitor and detect refrigerant gas in occupied space in commercial buildings. The CGS-NDIR detector features an NDIR (Non-dispersive infrared) sensor for industrial and commercial indoor applications. Compact, modern, digital design makes the units aesthetically pleasing and easy to install.

Popular Applications



Mounting Orientation:



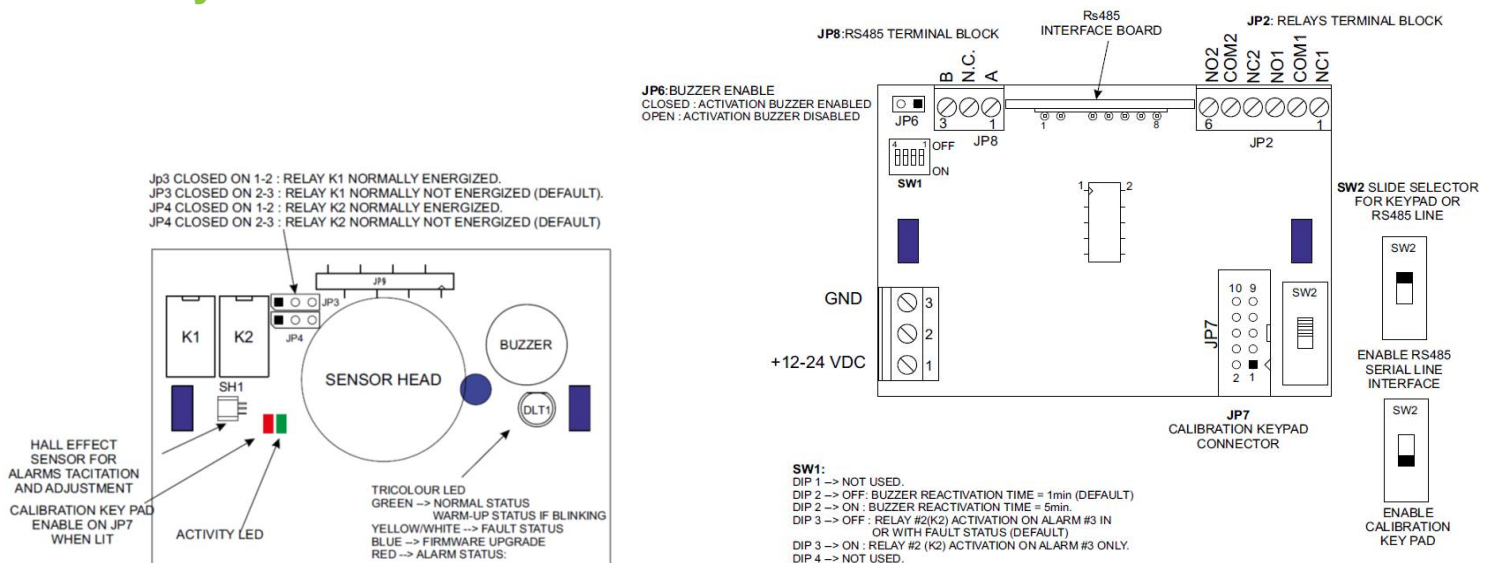
Technical Specification

General	
Sensing Element	Non-Dispersive Infrared (NDIR)
Detectable Gases	R410a, R407a, R404a, R32, A2L
Supply Voltage	24VAC, 120VAC, 60Hz
Power Consumption	44 mA amps @ 120VAC
Relay Output	Two SPDT (Form C) Dry Contacts 1.0A max. @ 24 VDC
Alarm Relays Actuation Points	Relay 1 & 2 at 1,000ppm & 2,000ppm
Multicolor Status LED Indication	Green Blinking Warm-Up
	Green Fixed Normal
	Yellow Fault
	Red Blinking Alarm
Buzzer	83 db at 10"
Serial Communications	Modbus RTU slave
Transmission Standard	RS485 (2-wire)
Installation	Mounted 18" from the floor, below from the discharge of the fan coil. Fits in standard 2 gang PVC junction box.
Factory Calibration Range	5000ppm
Accuracy	± 5% full-scale range under 50% full scale, ±7% full-scale range above 50% of full-scale.
Storage Temperature	-15 to 140 F
Operating Temperature	-4 to 140 F
Relative Humidity	0-90 %RH non-condensing
Response Time	T90 <30 seconds
Sensor Warmup Time	2 min unit initialization - 1 hour for full specification performance
Recommended Maintenance	Accuracy and nump test once per year or as required by code
Warranty	2 years
Nema Rating	Nema 12
Approvals	EN 61000-6.3:2007 + A1:201; EN 50270:2015; IEC 60335-2-40 Annex LL, EN 378-3, EN50676 and EN 14624, ISP5149-3, REACH/RoHS, CE Mark
Product Weight	0.44 lb. (200 g)
Product Dimensions	Width: 5.11" / Height: 5.11" / Depth 2.36" (Inches)



- Fits in standard 2 gang PVC Junction Box
- Onboard diagnostics with unit fault alarm
- 5 seconds functionality test
- Available in 24vac or 120vac
- 2 alarm thresholds

Board Layout



Area of coverage

Consider the coverage required and function of the area. Emphasis should be placed on airflow patterns and correct placement, not perceived detecting ranges.

Find out more
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