



Room CO, Sensors



Overview

The GS-CDR Series are room carbon dioxide gas detectors. These devices provide precision measurement of CO_2 gas. The GS-CDR series uses a highly accurate and reliable Nondispersive Infrared (NDIR) sensor combined with state-of-the-art digital linearization and temperature compensated circuitry in an attractive, low profile enclosure for room applications to monitor room CO_2 levels. A linear analog signal output of 4-20 mA, 0-5 or 0-10 Vdc is provided for connection to a building automation system. Optional features such as temperature sensor, setpoint adjustment, manual override and adjustable relay output are available.

Applications

- □ Used for demand controlled ventilation (DCV)
- Used for monitoring air quality
- Used in greenhouses

Features & Benefits

- Economical
- □ Models with adjustable range
- ☐ Menu driven set-up
- ☐ Guaranteed 5 year calibration interval
- Accurate carbon dioxide monitoring for increased comfort

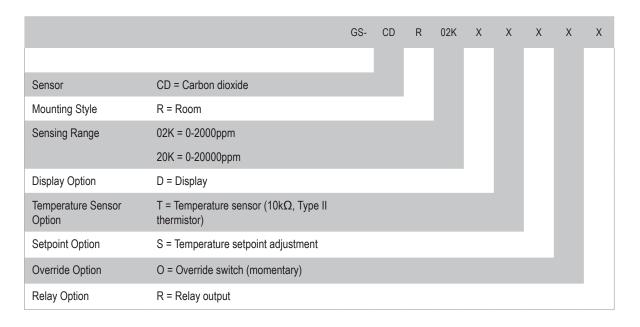
Accessories

GS-CDCAL	CO ₂ calibration kit - no gas
GS-CDFCAL	Factory calibration certificate
GS-CDNIST	NIST calibration certificate

Note: Calibration certificates must be purchased at the time of purchasing the relative sensors.



Model Selection



Product Specifications

Environmental	
Operating Temperature ————	0°C to 50°C; 32°F to 122°F
Storage Temperature	0°C to 70°C; 32°F to 158°F
Relative Humidity—————	0 to 95% Non-condensing
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Sensor	
Sensor Life Span	15 years typical
Sensor Coverage Area	——————————————————————————————————————
Sensor Life Span—————	15 years typical
Pressure Dependence	0.13% of reading per mm Hg
Altitude Correction—————	Programmable from 0-5000ft via keypad
Response Time	<2 minutes for 90% step change typical
Range	GS-CDR02K: 0-2000 ppm, GS-CDR20K: 0-20000 ppm
Accuracy————————————————————————————————————	GS-CDR02K ± 30 ppm +3% (Auto Cal On),
	GS-CDR20K ± 75 ppm or 10% reading
Sensor Type —	GS-CDR02K Non-Dispersive Infared (NDIR),
	GS-CDR20K Dual Channel NDIR
Enclosure	
Material-	White ABS
Dimensions —	See figure
Shipping weight	0.3 lbs (136 g)
Enclosure Ratings —	IP30 (NEMA 1)
LCD Display	
	1ppm CO ₂
	1.4''W x 0.6"H (35mmx15mm)
Backlight	Enable or disable via keypad
_	Enable of disable via Keypad
Electrical	
	2.2mW/K
	75mW
	Less than 10s
	Reverse voltage & overvoltage protected
	20-28 VAC/DC
Consumption——————	100 mA max @ 24 VDC
	185mA max at 24VDC (With all options)
Optional Items	
Relay Contact Ratings	— Form A contact (N.O), 2 Amps @ 140 VAC, 2 Amps @ 30 Vdc
Relay Hysteresis	Programmable 500-2000 ppm Programmable 25-200 ppm
Optional Override	Front panel momentary push-button
	N.O., SPST, 50 mA @12 Vdc
Optional Setpoint	
• •	0-10 K standard

Product Specifications

Temperature Sensor

- 1. Temperature sensor type stated is standard. Other temperature sensor types are available.
- 2. All materials and manufacturing processes comply with the RoHS directive

Dimensions

