



Stand Alone Carbon Dioxide Monitor

Gas Detection For Life

RI-600



Features

- Operates with or without a controller
- Long life NDIR sensor
- Large easy to read digital display
- Two power options: 115 VAC, 24 VDC
- Compact wall mount design
- Tri-color visual alarm display:



Green=Normal



Yellow=Alarm 1



Red=Alarm 2

Applications

- Brewing Tanks
- Filler Machines
- Storage Tanks
- Bag & Box Rooms
- Indoor Air Quality
- Greenhouse

RKI's Model RI-600 measures carbon dioxide in the air. The RI-600 displays the measured carbon dioxide concentration on the LCD. If a high level of CO₂ is present, the user is notified by an audible alarm tone and the multicolored LCD digital display. The monitor outputs an analog 4~20mA signal and gas alarm relay contacts open or close when the carbon dioxide concentration rises above preset alarm set point.

The Model RI-600 applies Non-Dispersive Infrared Ray Absorption (NDIR) technology to detect CO₂. The infrared beam emitted from the light source passes through the gas cell and reaches the IR sensor. When CO₂ enters the gas cell, the amount of infrared energy received by the IR sensor decreases since the infrared energy emitted from the IR source is absorbed by the CO₂. This decreased energy is detected by the IR sensor and is displayed as a gas concentration. An optical band pass filter in front of the IR sensor passes the CO₂'s absorption wave length. Power options are 115 VAC or 24 VDC. The RI-600 has two preset alarms, and comes ready to operate with a simple wall mount bracket and 10 foot power cord.

Model RI-600 Specifications

Detection Principle	Non-Dispersive Infrared				
Gas Detected	Carbon dioxide (CO ₂)				
Detection Range	0 - 2,000 ppm	0 - 5,000 ppm	0 - 10,000 ppm	0 - 2% Vol.	0 - 5% Vol.
Display Resolution	0 - 2,000 ppm: 1 ppm	0 - 2,000 ppm: 1 ppm 2,000 - 10,000 ppm: 10 ppm		0 - 2% Vol.: 0.005% Vol.	0 - 2% Vol.: 0.005% Vol. 0 - 5% Vol.: 0.010% Vol.
Alarm Points (<i>adjustable</i>)	1st: 1,000 ppm 2nd: 2,000 ppm	1st: 1,000 ppm 2nd: 5,000 ppm	1st: 1,000 ppm 2nd: 5,000 ppm	1st: 0.5% Vol. 2nd: 2.0% Vol.	1st: 0.5% Vol. 2nd: 3.0% Vol.
Sampling Method	Diffusion				
Indication Accuracy	Within ± 5 % of full scale (to the gas concentration signal output)				
Response Time	90% response (T ₉₀) within 60 seconds				
Gas Alarm Type	Two-step alarm (H-HH)				
Alarm Display	First: Backlight LED is orange, buzzer Second: Backlight LED is red, buzzer				
Alarm Pattern	Auto-reset				
Alarm Contact	No-voltage contact 1a or 1b and normally de-energized (energized in response to an alarm)				
Display	LCD digital display (Five - digit, seven segment / green, orange and red backlight) *No backlight by standard setting				
Trouble Alarm / Self-Diagnosis	System abnormalities / sensor connection abnormalities				
Trouble Alarm Display	Backlight LED flashes orange, buzzer *No backlight and no buzzer by standard setting				
Trouble Alarm Pattern	Auto-reset				
Relay Contact Rating	125 VAC - 1A or 30 VDC - 1 A (resistance load) 0 VAC $\pm 10\%$ (50/60 Hz) or, 24 VDC $\pm 10\%$				
Approval	CE marking standard				
Output Signal	4~20 mA DC (no-insulation/load resistance under 300 Ω)				
Power Sources	110 VAC $\pm 10\%$ (50/60 Hz) or 24 VDC $\pm 10\%$				
Power Consumption	AC specification: Max. 6VA DC specification: Max. 4W				
Operating Temperature	32 ~ 104°F (0 ~ 40°C) (At a constant conditions)				
Operating Humidity	Below 90% RH (Non-condensing)				
Mounting Equipment	Wall mounting type (by using accessory mounting plate or mount at one switch box) Cable inlet: Up, down and left/right, or rear side				
Dimension	Body: approx. 3.15"(W) x 4.72"(H) x 1.2"(D) (80(W) x 120(H) x 35.5(D)mm)				
Weight	AC specification: approx. 7.05 oz (200g), DC specification: approx. 6.34 oz (180g)				
Warranty	One year materials and workmanship				

Specifications subject to change without notice