



Features

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



Applications

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

RKI's Model RI-600 measures carbon dioxide in the air. The RI-600 displays the measured carbon dioxide concentration on the LCD. The monitor outputs an analog 4~20mA signal and outputs gas alarm relay contacts open or close when the carbon dioxide concentration rises over preset alarm set point.

The Model RI-600 applies Non-Dispersive Infrared Ray Absorption (NDIR) technique to detect a target gas. The infrared beam emitted from the light source passes through the gas cell and reaches the IR sensor. The target gas enters into the gas cell from the gas inlet. When the target gas is entered into the gas cell, the amount of infrared energy received by the IR sensor decreases since the infrared energy emitted from IR source is absorbed by the target gas. This decreased amount is detected by the IR sensor and is displayed as a gas concentration. There is an optical band pass filter in front of the IR sensor which can pass the absorption wave length of CO₂. 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. If a high level of CO₂ is present, the user is notified by an audible alarm tone and the multicolored LCD digital display.

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: 1ppm 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 (adjustable)	1st: 1,000 ppm 2nd: 1,000 ppm			1st: 1.0 %vol 2nd: 1.0 %vol	1st: 2.5 %vol 2nd: 2.5 %vol
Sampling Method	Diffusion				
Indication Accuracy	Within ± 5 %vol 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)				
Display of Alarm	First: Lights up the concentration display and backlight (orange), buzzer Second: Lights up the concentration display and backlight (red), buzzer *No backlight and no buzzer by standard setting				
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				
Display of Trouble Alarm	Alarm detail display and backlight blinking (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				

