RIKEN KEIKI

Monitor carbon dioxide continuously for maintaining comfortable environments

Indoor carbon dioxide monitor

Model RI-600

＜Non-dispersive infrared ray absorption＞

☑ ***User-friendly design***

☑ ***Easy operation***

APPLICATIONS

This carbon dioxide monitor measures carbon dioxide in the air. While displaying measured carbon dioxide concentration on the LCD, the monitor converts it to an analog 4~20mA signal and outputs a gas alarm contact at a gas alarm state when carbon dioxide concentration rises over preset concentration (alarm set point).

Typical applications include:

- Office room
- Conference
- Greenhouse
- Classroom
- Underground car park

SPECIFICATIONS

Detection principle	Non-Dispersive Infrared Ray
Gas type	Carbon dioxide
Display	LCD digital display (Five - digit, seven-segment/green, orange and red backlight) *No backlight by standard setting
Detection range	0~2000ppm, 0~5000ppm, 0~10000ppm 0~2vol%, 0~5vol%
Display resolution	0~2000ppm : 1ppm 2000ppm~10000ppm : 10ppm 0~2vol% : 0.005vol% 2~5vol% : 0.010vol%
Detection method	Diffusion type
Alarm setpoint value (standard setting)	ppm range : 1st 1000ppm / 2nd 1000ppm 0~2vol% : 1st 1.0vol% / 2nd 1.0vol% 0~5vol% : 1st 2.5vol% / 2nd 2.5vol%
Accuracy	Within ±5% for full scale (to the gas concentration signal output) *Under the same test conditions
Response time	90% response (T90) within 60 seconds *Under the same test conditions
Gas alarm type	Two-step alarm (H-HH)
Gas alarm display	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
Gas alarm pattern	Auto-reset

Gas alarm contact	No-voltage contact 1a or 1b and normally de-energized (energized in response to an alarm)
Fault alarm/self diagnosis	System abnormalities/sensor connection abnormalities
Fault alarm display	Alarm detail display and backlight blinking (orange), buzzer *No backlight and no buzzer by standard setting
Fault alarm pattern	Auto-reset
Contact capacity	125 VAC - 1A or 30 VDC - 1 A (resistance load)0 VAC ±10% (50/60 Hz) or, 24 VDC ±10%
Transmission specifications	4~20 mA DC (no-insulation/load resistance under 300 Ω)
Power supply	24VDC±10%
Power consumption	Max. 4W
Initial clear	Approx. 25 seconds
Warm-up time	Approx. 30 minutes
Operating temperature	0~40ºC (At a constant conditions)
Operating humidity	Below 90%RH (Non-condensing)
Structure	Wall mounting type
Dimensions	Approx. 80 (W) x 120 (H) x 35.5 (D) mm
Weight	Approx. 180g

SENSOR TECHNOLOGIES

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 to IR sensor. The target gas enters into gas cell from gas inlet. When target gas is entered into gas cell, the amount of infrared ray to be received by IR sensor decreases since the infrared ray emitted from IR source is absorbed by the target gas.
This decreased amount is detected by IR sensor and output as gas concentration. There is an optical band pass filter in front of IR sensor which can pass the absorption wave of target gas.

ACCESSORIES

Standard

- Cross-recessed pan head machine screw (2 pcs.)
- Cross-recessed round head wood screw (2 pcs.)
- 3.2 m AC power cable (1 pc.)
  *Supplied only with AC specification
- Operating manual (1 pc.)

Optional

- Installation board (1 pc.)
- Gas calibration cap (1 pc.)

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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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