



INSTRUMENTS

INDOOR CARBON MONOXIDE GAS MONITOR

Gas Detection For Life

Model EC-500



Features

- Compact, wall mounting design
- Highly visible 3 color LED digital display
- Power cable can enter from any direction
- Stores alarm summary data
- Built in audible and visual alarms
- 115 VAC operation
- Relay outputs for annunciation of alarms
- Low cost plugin electrochemical sensor

Applications

- Iron and steel industry
- Laboratories
- Boiler rooms
- Garages
- Vehicle service areas
- Engine testing
- Shipping / receiving docks
- Multi-occupancy residences

RKI's Model EC-500 is an indoor monitor that detects Carbon Monoxide (CO) with a range of 0-150 ppm. It's a sleek low profile design which lends itself to laboratory or commercial applications. The EC-500 comes ready to operate with a simple wall mount bracket and 10 foot power cord. If Carbon Monoxide is present, the user is notified by an audible alarm tone and multicolored LED display.

The EC-500 uses a fast responding low-cost plug-in style electrochemical sensor. This long life sensor is field-replaceable with no special tools required.

Specifications

Model	EC-500
Measuring Gas	Carbon monoxide (CO)
Sampling Method	Diffusion
Detection Principle	Electrochemical
Measuring Range	0-150ppm (1ppm / digit)
Display	3 digits, 3 color LED (Green, Orange, Red) Normal: Green
Type of Alarms	Gas alarm: 2 level alarm (Latched mode / cancelled by reset switch) Trouble alarm: Sensor connection trouble (Non-latched mode)
Preset Alarm Levels	1st: 50 ppm, 2nd: 100 ppm
Display of Alarm	1st Alarm: Flashing orange LED gas display AL1 LED orange color flashing, intermitted buzzer sound 2nd Alarm: Flashing red LED gas display AL2 LED red color flashing, Intermittent buzzer sound Trouble Alarm: Red flashing display "D-***" (**shows error No), short buzzer intermittent buzzer sound
Alarm Summary	10 alarm occurrences, time and alarm concentration
Output	DC 4-20mA, trouble alarm: 0.5mA (resistive load at below 300 ohms).
Alarm Relays	AL1 / AL2 Form A common, contact capacity: 125V 1A (Resistive load)
Operating Temp. & Humidity	0-40°C, below 90% RH (non-condensing)
Power Requirement	AC 115V 50/60Hz, Power consumption: Max 3.5VA, Power cable: 3m accessory (standard) Option: (DC 24V, Power consumption: MAX 2.0 W<Special version>)
Dimensions	Approx. 95(W) x 135(H) x 35(D)mm
Weight	Approx. 420g (Approx. 220g in case of DC 24V version)
Mounting	Wall mounting type (by using accessory mounting plate or mount at one switch box) Cable inlet: Up, down and left/right, or rear side

Carbon Monoxide and it's reaction / poisoning to human

CO (ppm)	Human reaction and poisoning
100	No noticeable effect after breathing in for a few hours.
200	Sight headache is felt after breathing for about 1.5 hours.
400-500	A headache, nausea and dizziness etc. are caused after breathing around 1 hour.
500-1,000	Loss of consciousness breathing about 1 to 1.5 hours.
1,500-2,000	A headache, dizziness, nausea will be severe after breathing for about 30 min. to 1 hour and a sense will be lost.
10,000	Immediate death

TLV: 5.0 ppm (Japan industrial hygiene society recommendation)
25 ppm (ACGIH recommendation in USA)



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