

Carbon Monoxide Detection and Monitoring in School Kitchens

Overview :

Carbon Monoxide (CO) is a poisonous gas that is produced by the incomplete burning of fossil fuels, including natural gas which is often used in modern industrial cooking equipment in School Kitchens

Because CO has no odour, colour or taste people may not realise they are being exposed.

Due to their size, children are particularly vulnerable to CO poisoning which can and often does prove fatal

With the increasing focus on health and safety there are increasing calls to install Carbon Monoxide Monitors in School Kitchens and adjacent dining areas to not just detect but monitor levels of this potentially lethal gas.



By Nick Webb - Flickr: Petrus Kitchen,
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The Solution :

The Riken Keiki EC-600 is a standalone Carbon Monoxide Monitor that is ideal for detecting and monitoring CO levels in school kitchens

Key Features :

- Operates with or without a controller
- Tri-colour visual alarm display : Green = Normal, Orange = Alarm 1, Red = Alarm 2.
- Long life, reliable and easy to replace sensor.
- Remote sensor cable options available (3 , 5 , 10 and 20 Meters)
- Ultra compact wall mounted design
- 24VDC (optional 240VAC mains adapter available) or battery options
- 2 x relay contacts and a 4-20mA output



The Effects of Carbon Monoxide (CO) on The Human Body :

Concentration (ppm)	Effects and Toxicity
100	No noticeable effects even after breathing for a few hours.
200	A mild headache in around 1.5 hours.
400~500	Headache, nausea and ear ringing in around 1 hour.
600~1000	Loss of consciousness in around 1 ~ 1.5 hours.
1500~2000	Headache, vertigo and disabling nausea in around 0.5 ~ 1 hour, and losing consciousness.
3000~6000	Headache, vertigo, disabling nausea...etc. in a few minutes. 10 ~ 30 minutes exposure can lead to death.
10000	Bring on immediate loss of consciousness and death.