

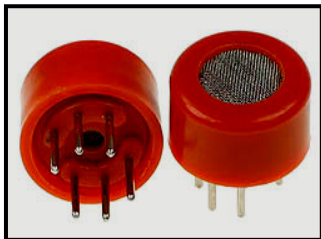
# INDOOR AIR QUALITY CONTROLLER

## FUME EXTRACTER

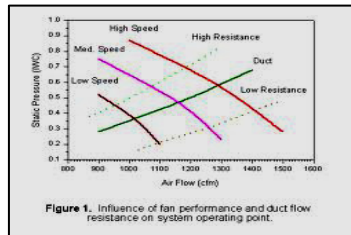
**Introduction:** MIAC series of indoor air quality controllers are available in more than 6 different models, virtually offering solutions to indoor air quality control in non-accessible/interior space in domestic, commercial, hospital, industrial and scientific buildings. These controllers are able to reduce ppm level of pollutant gases like CO<sub>2</sub>, CO, NH<sub>3</sub>, H<sub>2</sub>S/others etc to as much as 1/10<sup>th</sup> level or suffocation by way of evacuation. It is very useful for general domestic, hotels, hospital, chemical laboratory, mines, vehicles, multi-story buildings, telecom, electric substation petrochemical, automobile, organic/inorganic chemical, milk plant, sugar, textiles, beverages, water management/treatment, academic and defense utilities, dust free measurement environments in lab, high voltage working environment.

**Operating Principle of Indoor air quality controller:** It consists of high frequency chopper driving centrifugal pump sucking polluted air/suspended particulates and evacuates outside working environment at very high flow rate varying 1500- 5000 litre/minute through pipe. Gas/particulate sensor detects the ppm level of gas and generates the signal which is compared with set point to generate error signal, which corrects flow rate of air being evacuated. In conventional exhaust system, first foul air first spreads in whole occupancy and is then sucked out by conventional exhaust after whole spread in occupancy, apart from consuming lot of electricity and sound pollution and occupying large space, whereas here foul air is evacuated without giving chance to spread leading to least suffocation.

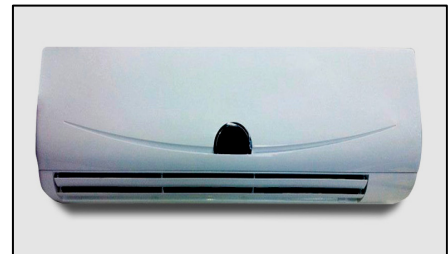
**Benefits:** Fast primary stability time, quick response, low suffocation.  
Large operating voltage-80-280 volt ac, / Low consumption, miniature design



Gas sensor



MIAC-01010



compact multiple air collector  
1200 lpm < Flow rate < 5000

### Electrical/Mechanical specification of indoor Air Quality Controller

| Model        | Evacuation rate<br>Cubic.desimeter<br>/min | Power<br>Watts | Outlet size<br>m.m. | Evacuation<br>length<br>meter | % reduction<br>pollutant<br>gases/30 min | Operating<br>voltage<br>A.C. | Noise    |
|--------------|--|----------------|---------------------|-------------------------------|--|------------------------------|----------|
| MIAC -003515 | 1.2  | 035            | 50                  | 3-10                          | 30%                                      | 220 /option                  | Very-low |
| MIAC -010024 | 2.4  | 100            | 50                  | 3-10                          | 40%                                      | 220 /option                  | Very-low |
| MIAC -020036 | 3.6  | 200            | 50                  | 3-10                          | 50%                                      | 220 /option                  | Very-low |
| MIAC -035045 | 4.5  | 350            | 50                  | 3-10                          | 60%                                      | 220 /option                  | Very-low |
| MIAC -040061 | 6.1  | 400            | 50                  | 3-10                          | 70%                                      | 220 /option                  | Very-low |
| MIAC -06078  | 7.8  | 600            | 62                  | 3-10                          | 70%                                      | 220 /option                  | Very-low |
| MIAC -08090  | 9.0  | 735            | 75                  | 3-10                          | 70%                                      | 220 /option                  | Very-low |

### Electronic Indoor quality control system:

Operating voltage 220 volts A.C. 50Hz, 12/24 volts D.C.

Excitation frequency 2.5/7.5/15.0/25.0 Hz

Evacuation rate: 1000-9000 litre/min

V.A.: as in data sheet

Gas evacuated in control loop: CO<sub>2</sub>/CO/H<sub>2</sub>S/NH<sub>3</sub>

**% reduction pollutant gases/30 min: 30-80%**

Evacuation length: 3-10 meter

Response time 5-10 mins

Sensing material: thermal based spm sensor/multi-metal oxide /NDIR /openloop

Control option feed forward/open loop as desired

Multi control synchronized control (interactively)

Display 3 1/2 -volt/flow rate as desired

Operation time: regular (24x7)

Controller size 5x5x8" / 10x10x14"



MIAC -0008015

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# INDOOR AIR QUALITY CONTROLLER



Operation room



Battle tank



Laboratory Room



General kitchen



Car



Rest room



Chemical experimental table



wave soldering machine fume extraction