Critical Environment Technologies

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SENSOR MOUNTING HEIGHTS & LOCATION

The sensor mounting height depends on the density of the gas relative to air. Heavier than air gases should be detected 6 inches from the floor, lighter than air gas sensors should be placed on or near the ceiling, and gases which have a density close to that of air should have sensors installed in the 'breathing zone' 4 to 6 feet from the floor. The breathing zone refers to the area 4 to 6 feet from the floor, where most human breathing takes place. This is a good default location for sensors, as many gases are often well dispersed in air.

Consideration should be given to accessibility for calibration when locating sensors. For example, a sensor mounted 30 feet off the floor will be difficult or even hazardous to service.

Sensors should be placed near the source of the gas if possible, for example near the compressor or piping.

Sensors should not be placed near ventilation fans or openings to outside. They should be placed in areas where there is good air circulation, but not in the path of rapidly moving air. Pay particular attention to 'dead air spots' where there is little or no air movement.

MOUNTING HEIGHTS FOR COMMON GASES

Breathing zone (4 – 6 feet above floor)

CO	Carbon Monoxide
CO2	Carbon Dioxide (room IAQ applications)
O2	Oxygen
NO	Nitric Oxide
NO2	Nitrogen Dioxide
H2S	Hydrogen Sulphide

Near the floor (6 inches above floor)

CO2	Carbon Dioxide (Industrial or Beverage applications)
CL2	Chlorine
O3	Ozone
C3H8	Propane
	Refrigerants (Freons)

Near the ceiling

NH3	Ammonia
CH4	Methane (Natural Gas)
H2	Hydrogen