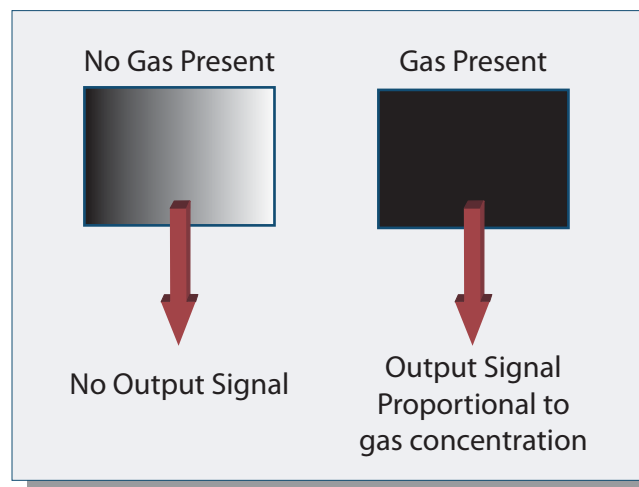


Electrochemical Sensors for Specific Gas PPM Monitoring

In addition to the sensor technologies already discussed, CIC offers a series of electrochemical sensors (Echem). Echem sensors are able to read a specific gas even when it is mixed in a background of other gases. Echem sensors are typically used to read very low PPM concentrations of toxic gases.

The Echem sensor consists of a small cell holding an electrolytic solution. This solution needs a specific gas in order to produce an electrical signal. When the specific gas passes through a permeable membrane and contacts the solution, an electrical signal is produced that is proportional to the amount of gas present.



Electrochemical Cell

The electrolytic solution requires a specific gas to generate an output signal. Other gases have no effect. When the gas enters the cell, it produces a signal that is proportional to the amount of gas present.

Echem sensors are a vast improvement over older PPM-range toxic gas sensors. They are easy to use and have a linear output. The cell requires replacement every one to two years.

CIC offers Echem sensors for:

1. Hydrogen Sulfide
2. Sulfur Dioxide
3. Nitrogen Dioxide
4. Carbon Monoxide
5. Hydrogen
6. Chlorine
7. Ammonia
8. Oxygen
9. Ethylene Oxide