



Sensor Technologies & Cross Sensitivity

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In determining the type of gas monitoring system required and locations for gas sensor placement, there are various factors, such as sensor technologies and cross sensitivity, that require consideration. Assessing these factors prior to equipment selection is important in preventing future potential problems that can affect proper monitoring of hazardous gas accumulations.

Some types of sensor element technologies can exhibit cross-sensitivity to other gases that may be simultaneously present in the monitored space. There are several technologies in use to monitor specific gases. Electro-chemical technology is one that is highly specific to its target gas while experiencing the least interference from other sources. Infra-red is very specific as well, but is limited to only a small number of gas detection applications, such as methane, carbon dioxide and some refrigerants. Infra-red can be cost prohibitive in many applications. Tin-oxide semiconductor sometimes referred to as solid-state technology is the most widely used, and when applied correctly, works extremely well in areas where only the target gas is present in a majority, such as carbon monoxide in an enclosed parking facility. It has the highest life expectancy outside of some infra-red technology.