

Gas / Sensor Technology

Depending on the type of gas and the range of detection required, one sensor technology is more suitable than others. The following list shows the technology used for a particular gas and the typical range.

Gas	Formula	Typical Ranges
SEMICONDUCTOR		
HCFC's - typical examples	R22, R123	10-10,000ppm
CFC's - typical examples	R11,R12	10-10,000ppm
HFC's - typical examples	R134a, R404A, R407, R410A, R507, R442D, R417A, R427A, R442A	10-10,000ppm
Hydrocarbons - typical examples	Methane (Natural gas), Propane (R290), Butane (R600), Isobutane (R600A), Ethylene (R1150), Propylene (R1270), Dimethylether, LPG, H2	0-10,000ppm
Ammonia (R717)	NH ₃	0-10,000ppm
VOC's - typical examples	Acetone, Chloroform, Ethanol, Methanol, Methyl and Methylene Chloride, Ethyl and Ethylene Chloride	0-10,000ppm
INFRARED		
Carbon Dioxide (R744)	CO2 standard model	0-10,000ppm (0-1%vol)
Carbon Dioxide (R744)	CO2 special request	0-1,000ppm, 0-2,000ppm, 0-20,000ppm, 0-5% , 0-10%
CATALYTIC		
All Combustible gases	including Ammonia	0-100% LEL

Gas	Formula	Typical Ranges
ELECTROCHEMICAL		
Ammonia	NH ₃	0-100ppm, 0-1.000ppm, 0-5.000ppm
Carbon Monoxide	CO	0-100ppm, 0-1.000ppm
Chlorine	Cl ₂	0-50ppm
Chlorine Dioxide	ClO ₂	0-1ppm
Ethylene	C ₂ H ₄	0-1000ppm
Ethylene Oxide	C ₂ H ₄ O	0-20ppm
Fluorine	F ₂	0-1ppm
Hydrazine	N ₂ H ₄	0-1ppm
Silane - Hydride	SiH ₄	0-5ppm
Hydrogen	H ₂	0-1.000ppm, 0-10.000ppm, 0-100% LEL
Hydrogen Chloride	HCl	0-50ppm
Hydrogen Cyanide	HCN	0-50ppm
Hydrogen Fluoride	HF	0-10ppm
Hydrogen Sulphide	H ₂ S	0-30ppm, 0-200ppm
Nitric Oxide	NO	0-100ppm, 0-500ppm
Nitrogen Dioxide	NO ₂	0-50ppm
Oxygen	O ₂	0-25%
Ozone	O ₃	0-5ppm
Sulphur Dioxide	SO ₂	0-100ppm