

Filtered Catalytic Bead Combustible (LEL) Sensor Information

Honeywell multi-gas detectors are offered with an unfiltered combustible gas (LEL) sensor. The filtered LEL sensor provides enhanced resistance to airborne sensor poisons such as volatile silicone vapors and high concentrations of hydrogen sulfide gas. Due to the physical size of some molecules, the filtered LEL sensor is not typically suitable for the detection of some compounds including complex hydrocarbons, alcohols, ketones and esters. The filtered LEL sensor is suitable for the detection of less complex molecules including C₁ to C₆ hydrocarbons, hydrogen and acetylene.

For applications requiring the detection of more complex compounds, select a detector with an unfiltered LEL sensor. Consult the following chart for assistance in selecting a suitable combustible sensor.

Explosive Gas/Vapour	Detectable by Non-Filtered LEL Sensor	Detectable by Filtered LEL Sensor
Hydrogen (H ₂)	●	●
Methane (CH ₄)	●	●
Ethane (C ₂ H ₆)	●	●
Propane (C ₃ H ₈)	●	●
n-Butane (C ₄ H ₁₀)	●	●
n-Pentane (C ₅ H ₁₂)	●	●
n-Hexane (C ₆ H ₁₄)	●	●
n-Heptane (C ₇ H ₁₆)	●	
n-Octane (C ₈ H ₁₈)	●	
n-Nonane (C ₉ H ₂₀)	●	
Methanol (CH ₃ OH)	●	
Ethanol (C ₂ H ₆ O)	●	
Iso-propyl alcohol (C ₃ H ₈ O)	●	
Acetylene (C ₂ H ₂)	●	●
1, 3 Butadiene (C ₄ H ₆)	●	●
Carbon monoxide (CO)	●	●
Acetone (C ₃ H ₆ O)	●	
Methyl ethyl ketone (C ₄ H ₈ O)	●	
Toluene (C ₇ H ₈)	●	
Ethyl acetate (C ₄ H ₈ O ₂)	●	
Ammonia (NH ₃)	●	●
Cyclohexane (C ₆ H ₁₂)	●	●
Gasoline	●	
Ethylene (C ₂ H ₄)	●	●
Benzene (C ₆ H ₆)	●	

Note: This list is not all-inclusive. As combustible sensors are a non-specific sensing technology, it is recommended you verify detection capabilities for any specific compounds. Catalytic bead sensors are typically not recommended for detection of combustible gases with flash points greater than 37.8° C/100° F.