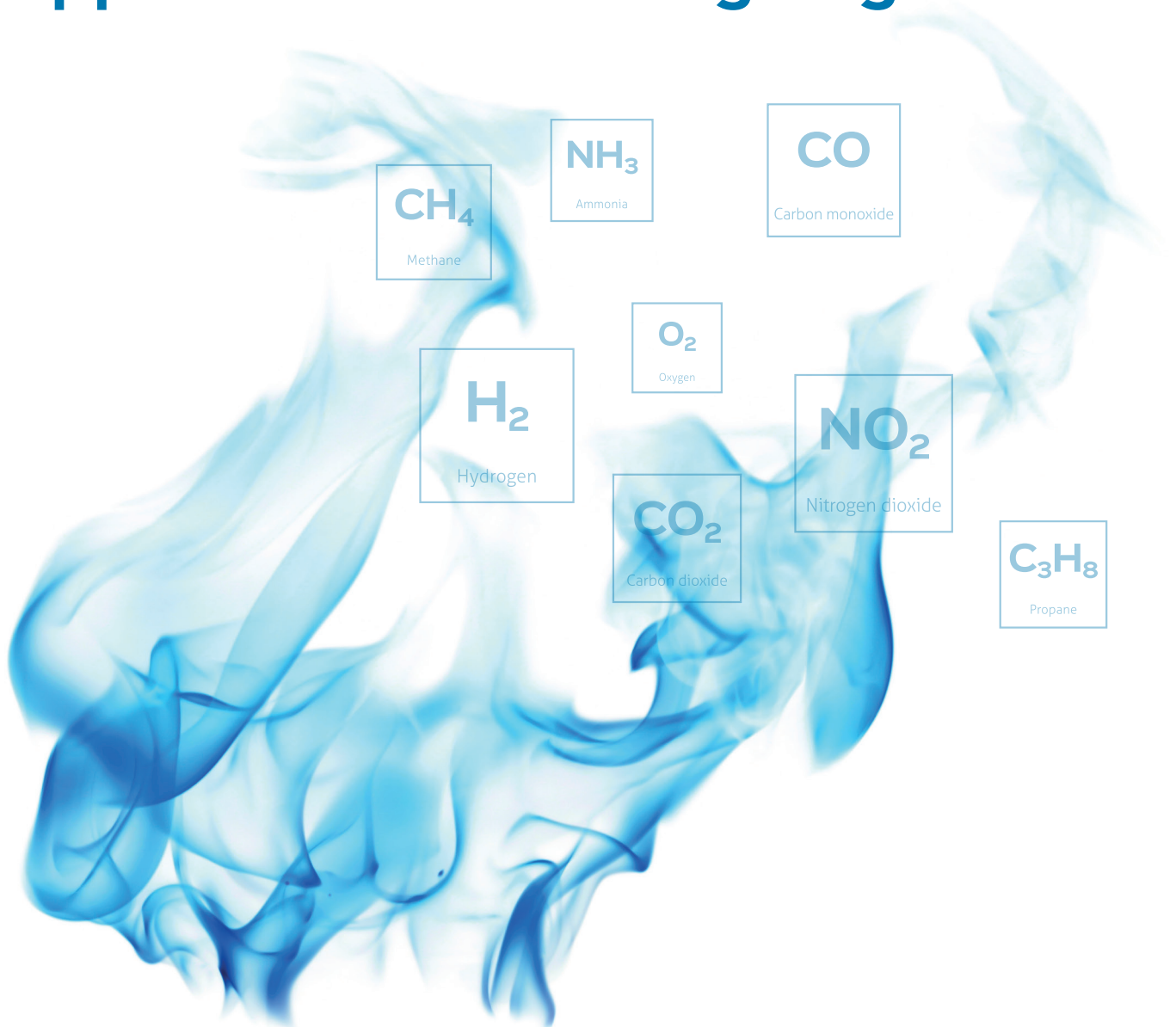


Gas Detection.



Portfolio

Applications according to gases



Applications according to gases

Gas		Applications
Acetone	C_3H_6O	Chemical industry: paint remover, cleaning agent
Ammonia	NH_3	Fertiliser production, alternative fuel, marine fuel, H ₂ carrier, refrigerant
Benzene	C_6H_6	Pharmaceutical, chemical and petrochemical industry, paint and rubber production
Butadiene	C_4H_6	Rocket fuel, chemical industry: synthetic rubber
Butyl acetate	$C_6H_{12}O_2$	Paint industry: paint solvents, cosmetics industry
Chlorine	Cl_2	Food industry, water treatment: swimming pools, bleaching agents
Chlorine dioxide	ClO_2	Paper industry, disinfection, batteries, water treatment
Hydrogen chloride	HCl	Production of PVC, metallurgy, waste water treatment
Hydrogen cyanide	HCN	Plastics industry, chemical industry
Cyclohexane	C_6H_{12}	Chemical industry: solvents, production of synthetic fibres such as nylon
Cyclopentane	C_5H_{10}	Chemical industry: foaming of refrigerators, blowing agent
Ethane	C_2H_6	Fuel, component of natural gas, heating gas
Ethyl acetate	$C_4H_8O_2$	Pharmaceutical industry: pharmaceuticals, extraction agents
Ethyl alcohol	C_2H_5OH	Chemical industry, food industry: beverage industry, disinfection
Ethylene	C_2H_4	Fruit and fruit ripening, production of plastics
Ethylene oxide	C_2H_4O	Medicine: production of plastics, disinfection, sterilisation
Hydrogen fluoride	HF	Battery recycling, battery charging stations
Formaldehyde	CH_2O	Medicine, disinfection
Iso/n-butane	C_4H_{10}	Raw material for the chemical industry
Iso/n-pentane	C_5H_{12}	Chemical industry: solvents for fats and oils
Isobutyl alcohol	$C_4H_{10}O$	Solvents for paints, beverage industry, cosmetics industry
Isopropyl alcohol	C_3H_8O	Laboratory, cleaning agents, defoaming agents, diluents
Carbon monoxide	CO	Garages, buildings
Carbon dioxide	CO_2	Production of alternative fuels, shielding gas
LPG		Lighter gas, heating gas
Methane	CH_4	Biogas, heating gas, livestock farming, landfill sites
Methanol	CH_3OH	Chemical industry, extraction agents in the petroleum industry, alternative fuels
Methyl acetate	$C_3H_6O_2$	Laboratory, pharmaceutical industry, food industry, solvents
Methyl ethyl ketone	C_4H_8O	Artificial flavouring agent, solvent for plastics, resins and paints
n-heptane	C_7H_{16}	Pharma industry, diluents for paints and adhesives, octane number determination
n-hexane	C_6H_{14}	Solvents, thinners for paints, printing inks

Gas		Applications
n-Heptane	C_7H_{16}	Petrochemical industry
n-Hexane	C_6H_{14}	Chemical industry: cleaning agents, in car and aircraft petrol
Nitrogen dioxide	NO_2	Water treatment: disinfectants, elimination of odours
Nitrogen monoxide	NO	Pest control, medicine, pharmaceutical industry, semiconductor industry
Nonane	C_9H_{20}	Refrigeration industry, welding equipment, LPG, heat pumps
Octane	C_8H_{18}	Plastics production, fuel gas
Oxygen	O_2	Disinfectants, cleaning agents
Ozone	O_3	Food industry, inert gas monitoring, measurement of inert gas concentrations
Phosphine	PH_3	Chemical industry: production of medicines and colourants
Propane	C_3H_8	Industry: used to extract sulphur from crude oil, main source of sulphuric acid
Propene	C_3H_6	Production of semiconductors
Propyl alcohol	C_3H_8O	Garage, tunnels
Silane	SiH_4	Emission monitoring, medicine
Sulfur dioxide	SO_2	Chemical industry, pharmaceutical industry
Toluene	C_7H_8	Electrical and pharma industry, ammonia production, steel production, fuel, batteries

Refrigerant gases

Refrigeration machines / chillers / commercial refrigeration /

Industrial refrigeration technology / Cold stores / Supermarkets /

Air conditioning chambers / Automotive industry / Transport refrigeration /

Heat pumps / Air conditioning / Air conditioning systems /

Beverage vending machines / Refrigerated vehicles / Ice makers



Sensor portfolio

Toxic gases	Formula	Range	SIL Certificate*	Marine Cert. *
Electrochemical sensor				
Acetylene	C ₂ H ₂	01-100 UEG	X	X
Ammonia	NH ₃	0-100 ppm	X	X
Ammonia	NH ₃	0-300 ppm	X	X
Ammonia	NH ₃	0-500 ppm	X	X
Ammonia	NH ₃	0-1000 ppm	X	X
Ammonia	NH ₃	0-5000 ppm	X	X
Chlorine	Cl ₂	0-10 ppm		
Chlorine	Cl ₂	0-20 ppm		
Chlorine dioxide	ClO ₂	0-1 ppm	X	X
Hydrogen chloride	HCl	0-20 ppm	X	
Hydrogen cyanide	HCN	0-50 ppm	X	X
hydrogen cyanide	HCN	0-100 ppm	X	X
Ethylene	C ₂ H ₄	0-200 ppm	X	
Ethylene oxide	C ₂ H ₄ O	0-10 ppm	X	
Hydrogen fluoride	HF	0-5 ppm	X	X
Hydrogen fluoride	HF	0-10 ppm	X	X
Formaldehyde	CH ₂ O	0-10 ppm	X	
Carbon monoxide	CO	0-50 ppm	X	X
Carbon monoxide	CO	0-150 ppm	X	X
Carbon monoxide	CO	0-250 ppm	X	X
Carbon monoxide	CO	0-300 ppm	X	X
Carbon monoxide	CO	0-500 ppm	X	X
Methanol	CH ₃ OH	0-250 ppm	X	X
Ozone	O ₃	0-5 ppm		
Ozone	O ₃	0-10 ppm		
Oxygen, 2 years	O ₂	0-25 % vol	X	X
Oxygen, 3 years	O ₂	0-25 % vol	X	
Oxygen, 5 years	O ₂	0-25 % vol	X	
Oxygen, 7 years	O ₂	0-25 % vol	X	
Sulphur dioxide	SO ₂	0-20 ppm		
Hydrogen sulphide	H ₂ S	0-50 ppm	X	X
Hydrogen sulphide	H ₂ S	0-100 ppm	X	X
Hydrogen sulphide	H ₂ S	0-200 ppm	X	X
Hydrogen sulphide	H ₂ S	0-500 ppm	X	X
Hydrogen sulphide	H ₂ S	0-1500 ppm	X	X
Nitrogen dioxide	NO ₂	0-10 ppm		
Nitrogen dioxide	NO ₂	0-20 ppm		
Nitrogen dioxide	NO ₂	0-30 ppm		
Nitrogen dioxide	NO ₂	0-100 ppm	X	X
Nitrogen dioxide	NO ₂	0-5 ppm		
Nitrogen monoxide	NO	0-100 ppm	X	
VOC	VOC	0-10 ppm	X	X
VOC	VOC	0-5 ppm	X	X
Hydrogen	H ₂	0-1000 ppm	X	X

Toxic gases	Formula	Range	SIL Certificate*	Marine Cert.*
Infrared sensor				
Carbon dioxide	CO ₂	0-2 % vol		
Carbon dioxide	CO ₂	0-5 % vol		
Carbon dioxide	CO ₂	0-20000 ppm		
Premium infrared sensor				
Carbon dioxide	CO ₂	0-2 % vol		
Carbon dioxide	CO ₂	0-5 % vol		
Carbon dioxide	CO ₂	0-10 %vol		
Carbon dioxide	CO ₂	0-5000 ppm		
Semiconductor sensor				
Ammonia	NH ₃	0-1000 ppm		
Ammonia	NH ₃	0-10000 ppm		
Ethylene	C ₂ H ₄	20-20000 ppm		

*Please check the data sheet of the respective sensor for certification.

Sensor portfolio

Combustible gases	Formula	Range	SIL Certificate*	Marine Cert.*
Pellistor sensor				
Acetone	C_3H_6O	0-100 % LEL	X	
Ammonia	NH_3	0-100 % LEL	X	
Ammonia	NH_3	0-20 % LEL	X	
Benzene	C_6H_6	0-100 % LEL	X	
Butadiene	C_4H_6	0-100 % LEL	X	
Butyl acetate	$C_6H_{12}O_2$	0-100 % LEL	X	
Cyclohexane	C_6H_{12}	0-100 % LEL	X	
Cyclopentane	C_5H_{10}	0-100 % LEL	X	
Ethane	C_2H_6	0-100 % LEL	X	
Ethanol	C_2H_5OH	0-100 % LEL	X	
Ethyl acetate	$C_3H_8O_2$	0-100 % LEL	X	
Ethylene	C_2H_4	0-100 % LEL	X	
Hydrogen	H_2	0-100 % LEL	X	X
Iso/n-butane	C_4H_{10}	0-100 % LEL	X	
Iso/n-pentane	C_5H_{12}	0-100 % LEL	X	
Isobutyl alcohol	$C_4H_{10}O$	0-100 % LEL	X	
Isopropyl alcohol	C_3H_8O	0-100 % LEL	X	X
LPG Liquid Petroleum Gas	LPG	0-100 % LEL	X	
Methane	CH_4	0-100 % LEL	X	X
Methanol	CH_3OH	0-100 % LEL	X	
Methyl acetate	$C_3H_6O_2$	0-100 % LEL	X	
Methyl ethyl ketone	C_4H_8O	0-100 % LEL	X	
n-heptane	C_7H_{16}	0-100 % LEL	X	
n-hexane	C_6H_{14}	0-100 % LEL	X	X
Nonane	C_9H_{20}	0-100 % LEL	X	
Octane	C_8H_{18}	0-100 % LEL	X	
Petrol vapours	--	0-100 % LEL	X	
Propane	C_3H_8	0-100 % LEL	X	X
Propane	C_3H_8	0-30 % LEL	X	
Propane	C_3H_8	0-5000 ppm	X	
Propene	C_3H_6	0-30 % LEL	X	
Toluene	C_7H_8	0-100 % LEL	X	

Combustible gases	Formula	Range	SIL Certificate*	Marine Cert.*
Infrared sensor				
Methane	CH ₄	0-100 % LEL		
Propane	C ₃ H ₈	0-100 % LEL		
Premium infrared sensor				
Methane	CH ₄	0-100 % LEL		
Methane	CH ₄	0-100 % vol		
Propane	C ₃ H ₈	0-100 % LEL		
MPS Sensor				
Acetylene	C ₂ H ₂	0-100 % LEL		
Hydrogen	H ₂	0-100 % LEL		
Methane	CH ₄	0-100 % LEL		
Propane	C ₃ H ₈	0-100 % LEL		

*Please check the data sheet of the respective sensor for certification.

Sensor portfolio

Refrigerant gases	Range
Semiconductor sensor	
R123	2000 ppm
R1234yf	2000 ppm
R1234yf	0-50 % LEL
R1234ze	2000 ppm
R1234ze	0-50 % LEL
R125	2000 ppm
R134a	2000 ppm
R143a	20-2000 ppm
R22	2000 ppm
R23	2000 ppm
R32	2000 ppm
R32	0-50 % LEL
R401a	2000 ppm
R401b	2000 ppm
R402a	2000 ppm
R402b	2000 ppm
R403a	2000 ppm
R404a	2000 ppm
R407a	2000 ppm
R407c	2000 ppm
R407f	2000 ppm
R408a	2000 ppm
R409a	2000 ppm
R410a	2000 ppm
R411a	2000 ppm
R416a	2000 ppm
R417a	2000 ppm
R422a	2000 ppm
R422d	2000 ppm
R427a	2000 ppm
R434a	2000 ppm
R437a	2000 ppm
R438a	2000 ppm
R448a	2000 ppm
R449a	2000 ppm
R450a	2000 ppm
R452a	2000 ppm
R452b	2000 ppm
R454b	2000 ppm
R454b	0-50 % LEL
R454c	20-2000 ppm
R717	1000 ppm
R717	10000 ppm

Refrigerant gases	Range
Semiconductor sensor	
R455a	2000 ppm
R455a	0-50 % LEL
R507a	2000 ppm
R508	2000 ppm
R513a	2000 ppm
Premium infrared sensor	
R32	0-50 % LFL
MPS™ Sensor	
R1234ze	0-100 % LEL
R32	0-100 % LEL

The overview of available gases is constantly being expanded.
Please contact us if the gas you are looking for is not listed.

Gas Detection.



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MSR-Electronic GmbH

Buergermeister-Schoenbauer-Str. 13
94060 Pocking
Germany

Phone: +49 8531 9004 0
Mail: info@msr-electronic.de
www.msr-electronic.de



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