Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

Halogen Group (Cl_2 F_2)
MIDAS-S-HAL, MIDAS-E-HAL

Gas Measure	Chlorine (Cl_2)
Cartridge Part Number	MIDAS-S-HAL 1 year standard warranty MIDAS-E-HAL 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range (ppm)	Cl_2 0 – 2ppm
Minimum Alarm 1 Set Point	0.25ppm
Repeatability	< ± 5% of measured value
Linearity	< ± 3% of measured value
Response Time $t_{62.5}$	≤ 5 seconds
Sensor Cartridge Life Expectancy	≥ 24 months under typical application conditions
Operating Temperature **Effect of Temperature** Zero Sensitivity	0°C to +40°C (32°F to 104°F) No effect (0°C to 20°C) < ± 0.005ppm / °C (20°C to 40°C) < ± 1.8% of measured value / °C
Operating Humidity (continuous) **Effect of Humidity** Zero Sensitivity	20 – 75% rH < 0.003ppm / % rH < ± 0.3% of measured value / % rH
Operating Pressure	70 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift Zero Sensitivity	 < ± 2ppm / year < 10% of measured value / year
Calibration Gas	Chlorine (Cl_2)
Challenge Gas (Bump Test)	Chlorine (Cl_2)
Warm Up Time	< 10 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on ideal test environment; observed performance may vary based on the actual monitoring system and the sampling conditions employed

Other Detectable Gases

The following additional gases can be detected with this sensor cartridge. Sensor performance and characteristics will be representative of the data as tabulated above. Consult the Technical Manual to set up the Midas® transmitter with the designated identification code for each of the following gas types.

Detectable Gas	Chemical Formula	Measuring Range
Fluorine	F_2	0-4ppm

Cross Sensitivities

Each Midas® sensor is potentially cross sensitive to other gases and this may cause a gas reading when exposed to other gases than those originally designated. The table below presents typical readings that will be observed when a new sensor cartridge is exposed to the cross sensitive gas (or a mixture of gases containing the cross sensitive species).

Gas / Vapor	Chemical Formula	Concentration Applied (ppm)	Reading (ppm Cl_2)
Ammonia	NH_3	50	-1.9
Carbon Monoxide	CO	20000	0
Hydrogen Chloride	HCl	9	1.25
Hydrogen Sulphide	H_2S	25	-16.3
Nitrogen Dioxide	NO_2	50	1.25 (transient)
Sulphur Dioxide	SO_2	50	9.1

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