Honeywell

Midas® Sensor Cartridge Specifications

Hexafluorobutadiene (C4F6, High Range)

MIDAS-E-CFH

Gas Measured	Hexafluorobutadiene (C_4F_6)
Cartridge Part Number	MIDAS-E-CFH 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range	C_4F_6 0 – 80ppm
Minimum Alarm 1 Set Point	20ppm
Lower Detection Limit	7.2ppm
Linearity	<± 10% of measured value
Repeatability	<± 10% of measured value
Resolution	0.5ppm
Response Time $t_{62.5}$	≤ 60 seconds
Sensor Cartridge Life Expectancy	≥ 12 months under typical application conditions
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature	
Zero	<± 0.03ppm / °C
Sensitivity	<± 0.4% of measured value / °C
Operating Humidity	10 to 90% RH
Effect of Humidity	
Zero	<± 0.01ppm / % RH
Sensitivity	<± 1% of measured value / % RH
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	No Drift
Sensitivity	< 15% of measured value / year
Calibration Gas	Hydrogen Fluoride (HF)
Bump Test Gas	Chlorine (Cl_2)
Warm Up Time	< 20 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.

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 Measured	Chemical Formula	Concentration Applied(ppm)	Reading (ppm C_4F_6)
Arsine	AsH_3	1	0
Carbon Monoxide	CO	2000	0
Chlorine	Cl_2	2	5.9
Diborane	B_2H_6	0.5	-2.3
Hydrogen	H_2	20000	0
Hydrogen Chloride	HCl	2	7.8
Hydrogen Fluoride	HF	2	8.7
Hydrogen Sulfide	H_2S	1	-0.6
Iso Propanol	C_3H_2OH	500	0
Methanol	CH_4	500	0
Nitrogen Dioxide	NO_2	10	5.6
Phosphine	PH_3	1	-0.6
Nitrogen Trifluoride	NF_3	10	10.3
Sulfur Dioxide	SO_2	2	4.8
Perfluoroether	HFE		Yes
Hydrofluorocarbon, Perfluorocarbon	HFC / PFC		Yes

Interference differs from cartridge to cartridge and over cell life. It is not recommended to calibrate with cross sensitivity factors. The target gas should be used for calibration.

Find out more
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