Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

C_4F_6 High Range
MIDAS-E-CFH

Gas Measured	C_4F_6 High Range
Cartridge Part Number	MIDAS-E-CFH 2 year standard warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range (ppm)	C_4F_6 0 – 80 ppm
Minimum Alarm 1 Set Point	20 ppm
Repeatability	< ± 10% of measured value
Linearity	< ± 10% of measured value
Response Time $t_{62.5}$	≤ 60 seconds
Sensor Cartridge Life Expectancy	≥ 12 months under typical application conditions
Operating Temperature **Effect of Temperature** Zero Sensitivity	0°C to +40°C (32°F to 104°F) < ± 0.009 ppm / °C (at 0°C to 20°C) < ± 0.03 ppm / °C (at 20°C to 40°C) < ± 0.4% of measured value / °C
Operating Humidity (continuous) **Effect of Humidity** Zero Sensitivity	20 – 75% RH[1] < ± 0.01 ppm / % RH < ± 1% of measured value / % RH
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift Zero Sensitivity	 No Drift < 15% of measured value / year
Calibration Gas	Hydrogen Fluoride (HF)
Challenge Gas (Bump Test)	Chlorine (CL_2)
Warm Up Time	< 60 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 / Vapor	Chemical Formula	Concentration Applied (ppm)	Reading (ppm C_4F_6)
Arsine	AsH_3	1	0
Carbon Monoxide	CO	2,000	0
Chlorine	Cl_2	2	5.9
Diborane	B_2H_6	0.5	-2.3
Hydrogen	H_2	20,000	0
Hydrogen Chloride	HCl	2	7.8
Hydrogen Fluoride	HF	2	8.7
Hydrogen Sulfide	H_2S	1	-0.6
Isopropanol	C_3H_7OH	500	0
Methanol	CH_3OH	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

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