



Halogen Group (SF_4 ClF_3)

MIDAS-S-SF4

MIDAS-E-SF4

Halogen Group (SF₄ ClF₃)

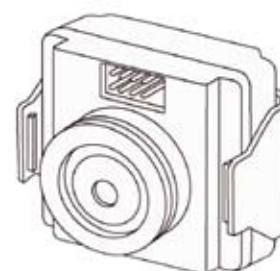
MIDAS-S-SF4

MIDAS-E-SF4



Midas[®] sensor cartridges are intended for use only with Honeywell Analytics' Midas[®] gas detector system. Please refer to the Midas[®] Technical Manual for further details.

The Midas[®] Halogen Group (SF₄ ClF₃) electrochemical sensor is specifically designed to directly detect similar molecular species in the Halogen group; namely Sulphur Tetrafluoride (SF₄) and Chlorine Trifluoride (ClF₃). See details regarding other detectable gases. Consult the Technical Manual to configure the Midas[®] transmitter to read the desired gas type.



Gas Measured	Sulphur Tetrafluoride (SF ₄)
Cartridge Part Number	MIDAS-S-SF4 1 year standard warranty MIDAS-E-SF4 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range (ppm)	SF ₄ 0 – 0.4ppm
Minimum Alarm 1 Set Point	0.050ppm
Lower Detectable Limit (LDL)	0.036ppm
Repeatability	< ± 20% of measured value
Linearity	< ± 20% of measured value
Response Time t_{92.5}	< 200 seconds
Sensor Cartridge Life Expectancy	≥ 24 months under typical application conditions
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature	< ± 0.0002ppm / °C (0°C to 20°C) < ± 0.0009ppm / °C (20°C to 40°C)
Zero Sensitivity	< ± 0.4% of measured value / °C
Operating Humidity (continuous)	20 - 75% rH
Effect of Humidity	< 0.0004ppm / % rH < ± 1% of measured value / % rH
Zero Sensitivity	
Operating Pressure	90 - 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero Sensitivity	Negligible < ± 15% of measured value / year
Calibration Gas	Hydrogen Chloride (HCl)
Challenge Gas (Bump Test)	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

General Specification



Midas® is a registered trademark of Honeywell Analytics.

All data refers to representative electrochemical sensor as tested with SF₄ gas from an approved source. As with all electrochemical sensor cells, dramatic output changes in reported concentrations can be expected under rapidly changing environmental conditions. Please ensure sensors are located in areas not prone to sudden changes in humidity and temperature.

Actual readings may be affected by flow rates (although Midas® automatically controls flow rates within specified ranges) and absorption on tubing and other gas path surfaces.

All sensors are shipped pre-calibrated to traceable national standards. Dependent on actual operating conditions and overall exposure to gases, each sensor may not require in-field calibration for up to 24 months subject to any requirements to calibrate from local regulations or site practices.

Calibration and challenge gases should be from a certified and reliable source.

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
Chlorine Trifluoride	ClF ₃	0 – 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 / Vapour	Chemical Formula	Concentration Applied (ppm)	Reading (ppm SF ₄)
Arsine	AsH ₃	1	0
Carbon Monoxide	CO	2000	0
Chlorine	Cl ₂	1.9	0.4
Diborane	B ₂ H ₆	1	-0.24
Hydrogen	H ₂	20,000	0
Hydrogen Fluoride	HF	1.5	0.38
Hydrogen Sulphide	H ₂ S	25	-0.17
Iso Propanol	C ₃ H ₇ OH	500	0
Methanol	CH ₃ OH	500	0
Nitrogen Dioxide	NO ₂	5	0.17
Phosphine	PH ₃	1	-0.026
Sulphur Dioxide	SO ₂	3	0.25

Our Product Range



Fixed Gas Monitoring

Honeywell Analytics offers a wide range of fixed gas detection solutions for a diverse array of industries and applications including: Commercial properties, industrial applications, semiconductor manufacturers, energy plants and petrochemical sites.

- » Detection of flammable, oxygen and toxic gases (including exotics)
- » Innovative use of 4 core sensing technologies – paper tape, electrochemical cell, catalytic bead and infrared
- » Capability to detect down to Parts Per Billion (ppb) or Percent by Volume (%v/v)
- » Cost effective regulatory compliance solutions

Portable Gas Monitoring

When it comes to personal protection from gas hazards, Honeywell Analytics has a wide range of reliable solutions ideally suited for use in confined or enclosed spaces.

These include:

- » Detection of flammable, oxygen and toxic gases
- » Single gas personal monitors – worn by the individual
- » Multi-gas portable gas monitors – used for confined space entry and regulatory compliance
- » Multi-gas transportable monitors – used for temporary protection of area during site construction and maintenance activities

Technical Services

At Honeywell Analytics, we believe in the value of great service and customer care. Our key commitment is providing complete and total customer satisfaction. Here are just a few of the services we can offer:

- » Full technical support
- » Expert team on hand to answer questions and queries
- » Fully equipped workshops to ensure quick turnaround on repairs
- » Comprehensive service engineer network
- » Training on product use and maintenance
- » Mobile calibration service
- » Customised programmes of preventative/corrective maintenance
- » Extended warranties on products

Find out more

www.honeywellanalytics.com

Contact Honeywell Analytics:

Europe, Middle East, Africa

Life Safety Distribution AG
Wilstrasse 11-U31
CH-8610 Uster
Switzerland
Tel: +41 (0)44 943 4300
Fax: +41 (0)44 943 4398
gasdetection@honeywell.com

Americas

Honeywell Analytics Distribution, Inc.
405 Barclay Blvd.
Lincolnshire, IL 60069
USA
Tel: +1 847 955 8200
Toll free: +1 800 538 0363
Fax: +1 847 955 8208
detectgas@honeywell.com

Asia Pacific

Honeywell Analytics Asia Pacific
#508, Kolon Science Valley (1)
187-10 Guro-Dong, Guro-Gu
Seoul, 152-050,
Korea
Tel: +82 (0)2 2025 0307
Fax: +82 (0)2 2025 0329
analytics.ap@honeywell.com

Technical Services

ha.emea.service@honeywell.com

www.honeywell.com

Please Note:

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.

H_MIDAS-S-SF4_DS_V2_EMEA

10/07

© 2007 Honeywell Analytics

Honeywell