

# Hydrogen Fluoride

## SensoriC HF 3E 10 SE



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### FEATURES

Amperometric 3 electrode sensor cell  
Very stable zero reading  
Highly sensitive  
Monitors for acid gases

### TYPICAL APPLICATIONS

TLV-monitoring, leakage detection  
Portable & fixed point applications

### PART NUMBER INFORMATION

MINI	1336-932-30009
SENSORIC CLASSIC	1336-932-30069
CTL4 series adaptation	1336-932-30049
CTL 7 series adaptation	1336-932-30079

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### TECHNICAL SPECIFICATIONS

Measuring Range	0–10 ppm
Sensitivity Range	300 nA/ppm ± 100 nA/ppm
Zero Current at 20°C	<± 30 nA
Resolution at 20°C	<0.1 ppm
Bias Potential	0 mV
Linearity	<10% full scale
Response Time at 20°C	
t50	< 30 s calculated from 4 min. exposure time
t90	< 90 s calculated from 4 min. exposure time
Long Term Sensitivity Drift	<10% per 6 months
Operation Conditions	
Temperature Range	-20°C to +40°C
Humidity Range	15–90% r.H., non–condensing
Effect of Humidity	abrupt change of r.H. might cause a zero reading transient
Sensor Life Expectancy	> 18 months
Warranty	12 months

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### OUTPUT vs. TEMPERATURE:

*Due to the nature of the gas the temperature dependence of the sensor as a function of the environmental temperature conditions is strongly related to the experimental conditions such as relative humidity.*

*SensoriC is currently revising this set of data via cross calibration with HCl.*

*Based on the current experience with this sensor the temperature dependence*

- a) *on the zero reading is < 0.5 ppm*
- b) *on the sensitivity is < 20% of the sensitivity at 20°C*

*within the specified temperature range.*

*Please contact our Technical Support Department ([tech@sensoric.de](mailto:tech@sensoric.de)) for further details.*

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### Cross Sensitivities at 20°C

Gas	Concentration	Reading [ppm]
Acetic Acid	100 ppm	yes / no data
Alcohols	1000 ppm	0
Carbon Dioxide	5000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	1 ppm	0.7
Hydrocarbons	% range	0
Hydrogen	3000 ppm	< 1
Hydrogen Chloride	10 ppm	6
Sulfur Dioxide	20 ppm	16 <sup>1</sup>

1) Short gas exposure in minute range.

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