SENSAIR Sensor Data Sheet

Hydrogen Fluoride, HF, 10ppm

(823-1017-11-R)

Minimum Indicated Concentration	0.3 ppm
Repeatability	5%, Successive exposure
Accuracy	10% of Indication
Span Drift	< 10% change/6 months (typical)
Response Time (Rise)	T_{90} < 50 sec, T_{50} < 15 sec
Recovery Time (Fall)	T_{10} < 30 sec
Operating Temperature Range	-20 to 50°C (-4 to 122°F)
Storage Temperature Range	3 to 20°C (37 to 68°F)
Operating Humidity Range*	15 - 95% RH, non-condensing
Operating Pressure Range	Ambient Atmospheric ±1.5psi
Sensor Life (Expected)	Standard: 18 months from Shipping Date
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate	0.5 LPM (recommended)
Oxygen Requirement	1% by volume, minimum

**High humidity can enhance HF absorption and adsorption.*

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Acetic Acid	100 ppm	Yes/No Data
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	100 ppm	None
Chlorine	1.7 ppm	+1
Hydrocarbons	% Range	None
Hydrogen Chloride	2.7 ppm	+1 ppm
Sulfur Dioxide	3.3 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**
  It is recommended that this sensor be zeroed in clean ambient air or Zero Air moisturized to ambient conditions. If dry air is used the sensor can exhibit a positive spike that could set off alarms. If dry Zero Air is used it should be allowed to run over the sensor for 3 to 5 minutes for the sensor output to equilibrate.

- **Span Calibration**
  It is recommended that this sensor be calibrated at the half-scale concentration of 5 ppm HF if possible. If accuracy is not an issue, HCl gas may be used as a span gas with a 37% cross-interference factor. It is recommended that the sensor undergo a 3 to 5 minute pre-calibration exposure in order to season the calibration system. This pre-exposure ensures that the gas reaches the sensor at full concentration. The use of Teflon™ or HDPE tubing is recommended with this gas to prevent gas absorption into the tubing walls.

- **Test-on-Demand Cell**
  There is no Test-on-Demand cell available for this sensor.