



RAE Systems, Inc.  
1339 Moffett Park Dr.  
Sunnyvale, CA 94089 USA

Telephone 408-752-0723  
Tube Orders 1-888-723-8823  
Web www.raesystems.com

# Gas Detection Tube Data Sheet

## Hydrogen Fluoride HF No. 10-105-10

	Extended Range	Standard Range	Extended Range
Range (ppmv)	0.25 - 10	0.5 - 20	1 - 40
No. of Pump Strokes	8	4	2
Sample Volume (mL)	800	400	200
Sample Time (min)	8 x 0.5	4 x 0.5	2 x 0.5
Correction Factor	0.4	1	1.6

Precision (Relative Standard Deviation)\*:  $\leq \pm 20\%$

Linearity with No. of Pump Strokes:  $r^2 = 0.98$

Humidity: Calibrated at 50% RH and 23°C (73°F).

% Relative Humidity	30%	40%	50%	60%	70%	80%	90%
Correction Factor	0.3	0.4	1.0	1.3	1.6	2.0	2.6

Temperature Range: No effect 10 - 30°C (50 - 86°F) at constant 41% RH.

Storage Life and Conditions: 2 years in darkness at 5 - 25°C (40 - 77°F)

Color Change: Beige → Purple

Reaction Principle:  $\text{HF} + \text{NaOH} \rightarrow \text{NaF} + \text{H}_2\text{O}$

<u>Cross-sensitivity:</u> Substance	Concentration (ppmv)	Apparent Reading*
CO	250	0
CO <sub>2</sub>	50000	0
NH <sub>3</sub>	300	0 <sup>^</sup>
NO	100	0
H <sub>2</sub> S	800	0
SO <sub>2</sub>	200	0
CH <sub>4</sub>	25000	0
HCl	4	entire tube <sup>#</sup>
Cl <sub>2</sub>	15	entire tube <sup>#</sup>

\*Data based on RAE pumps and tubes used in standard range.

<sup>#</sup> Pink color over entire tube length. <sup>^</sup> May interfere in mixtures.

Other Possible Interferences: Other acid vapors; amines and other bases. No effect of 100 ppm toluene or 2400 ppm hexane.

Caution: Dispose of spent or expired tubes according to local regulations. Possibly hazardous materials are given under the section Reaction Principle.