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# Gas Detection Tube Data Sheet

## Ammonia NH<sub>3</sub> No. 10-100-40

	Extended Range	Standard Range	Extended Range
Range (ppmv)	0.5 - 7.5%	1 - 15%	2 - 30%
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 2	2	1.5
Correction Factor	0.5	1	2

Precision (Relative Standard Deviation)\*:  $\leq \pm 10\%$

Linearity with No. of Pump Strokes:  $r^2 = 0.999$

Humidity: 85% RH reduces the reading by about 25% compared to dry air

Temperature Range: No effect 0 - 40°C (32 - 104°F)

Storage Life: 2 years in darkness at 5 - 25°C (40 - 77°F). Refrigeration preferred.

Color Change: Orange → Deep Purple

Reaction Principle:  $3\text{NH}_3 + \text{H}_3\text{PO}_4 \rightarrow (\text{NH}_4)_3\text{PO}_4$

<u>Cross-sensitivity:</u> Substance	Concentration (ppmv)	Apparent Reading*
CO	3000	0
CO <sub>2</sub>	100000	0
SO <sub>2</sub>	200	0
NO	100	0
Hexane	100	0
Isobutylene	1000	0
CH <sub>4</sub>	25000	0

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

Other Possible Interferences: Amines and other bases

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