

# Ammonia NH<sub>3</sub>

No. H-10-100-05



	Extended Range	Standard Range	Extended Range
Range (ppmv)	0.5 - 15	1 - 30	2 - 60
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 1.5	1.5	1
Correction Factor	0.55	1	2.4

Precision (Relative Standard Deviation)\*:  $\leq \pm 12\%$

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

Humidity: The tubes are calibrated at 50% RH @ 24 °C (75 °F)

% RH	< 5%	10%	50%	80%	95%
Corr. Factor	0.8	0.85	1.0	1.0	1.0

Temperature Range: 0 - 40°C (32 - 104°F) @ constant 50%RH

Temp (°C/°F)	0/32	10/50	25/77	35/95
Corr. Factor	0.9	0.95	1.0	1.1

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

Color Change: Purple → Beige

Reaction Principle: Prelayer reduces humidity effects



Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
Pyridine	10	15
Diethylamine	20	18
Hydrazine	20	2**
Methylhydrazine	20	2.3**
CO	100	0
CO <sub>2</sub>	20000	0#
H <sub>2</sub> S	200	0
Hexane	100	0
Isobutylene	100	0
Toluene	100	0

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

\*\* These hydrazines can be measured using 2 strokes with a CF of 5.

# 16000 ppm CO<sub>2</sub> reduces the NH<sub>3</sub> response by 30% in mixtures, 5000 ppm CO<sub>2</sub> reduces

NH<sub>3</sub> response by 10% in mixtures, and 1000 ppm CO<sub>2</sub> has no effect.

Other Possible Interferences: Amines and other bases.