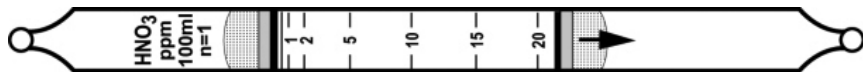


Nitric Acid HNO_3 No. H-10-146-20



	Extended Range	Standard Range	Extended Range
Range (ppmv)	0.5-10	1-20	2-40
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 1	1	0.5
Correction Factor	0.46	1	2.1

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

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

Humidity Range: 0 - 90% RH. Calibrated at 50% RH and 20°C (68°F)

% Relative Humidity	0%	30%	50%	70%	80%	90%
Correction Factor	0.7	0.8	1.0	1.3	1.8	1.9

Temperature Range: 0 - 40°C (32 - 104°F)

Temp(°C/°F)	0/32	10/50	20/68	30/86	40/104
Corr. Factor	1.3	1.2	1.0	0.9	0.8

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

Color Change: Yellow → Purple

Reaction Principle: $\text{CH}_3\text{HNO}_3 + \text{Base} \rightarrow \text{Dye color change}$

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
HCl	10	14
Cl ₂	5	13
HF	10	7
Acetic Acid	saturated	≤ 2 (v. pale)
CO	250	0
CO ₂	50000	0
CH ₄	25000	0
NO	100	0
NO ₂	60	0
H ₂ S	60	0
SO ₂	200	0
HCN	60	0

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

Other Possible Interferences: Other acids may give a positive response and bases may give a negative response in mixtures. Headspace from 85% H_3PO_4 and H_2SO_4 give ≤ 1 ppm response because of their low volatility.