



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

Water Vapor (Pipeline) H₂O No. 10-120-10

	Extended Range	Standard Range	Extended Range
Range (lbs/MMCF)	1 - 5	2 - 10	4 - 20
No. of Pump Strokes	4	2	1
Sample Volume (mL)	400	200	100
Sample Time (min) in air (sec) in natural gas	4 x 1.5 min 4 x 45 sec	2 x 1.5 min 2 x 45 sec	1.5 min 45 sec
Correction Factor	0.51	1	2.22

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

Linearity with No. of Pump Strokes: $r^2 = 0.99$

Temperature Range: 0 - 40°C (32 - 104°F)	Temp (°C/°F)	0/32	10/50	23/73	40/104
	Corr. Factor	1.1	1.0	1.0	0.9

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

Color Change: Yellow → Green

Reaction Principle: $\text{H}_2\text{O} + \text{Mg}(\text{ClO}_4)_2 \rightarrow \text{Mg}(\text{ClO}_4)_2 \cdot \text{H}_2\text{O}$

Cross-sensitivity: Substance	Concentration (ppmv)	Reading* (lbs/MMCF)
CH ₄	100%	0
Propane (C ₃ H ₈)	10000	≤2
CO	200	0
CO ₂	3000	0
SO ₂	1500	0
H ₂ S	2000	~1
NH ₃	100	entire tube
HCl	300	0
Methanol	50	0‡
Toluene	400	~1

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

‡ Positive interference when methanol is above 70 ppm.

Other Possible Interferences: Amines, alcohols.

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