



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 H<sub>2</sub>O

### No. 10-120-40

	Extended Range	Standard Range	Extended Range
Range (mg/L)	0.5 - 4	1 - 18	2 - 32
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	0.4	1	See Fig. 2

Precision (Relative Standard Deviation)\*: ≤ ±20%

Linearity with No. of Pump Strokes: r<sup>2</sup> >0.95

Temperature Range: Refer to Figures 1 and 2. Requires accurate temperature measurement.

Storage Life: 1 year in darkness at 5 - 25°C (40 - 77°F). Refrigeration preferred.

Color Change: Yellow green → Purple

Reaction Principle: H<sub>2</sub>O + Mg(ClO<sub>4</sub>)<sub>2</sub> → Mg(ClO<sub>4</sub>)<sub>2</sub>•H<sub>2</sub>O

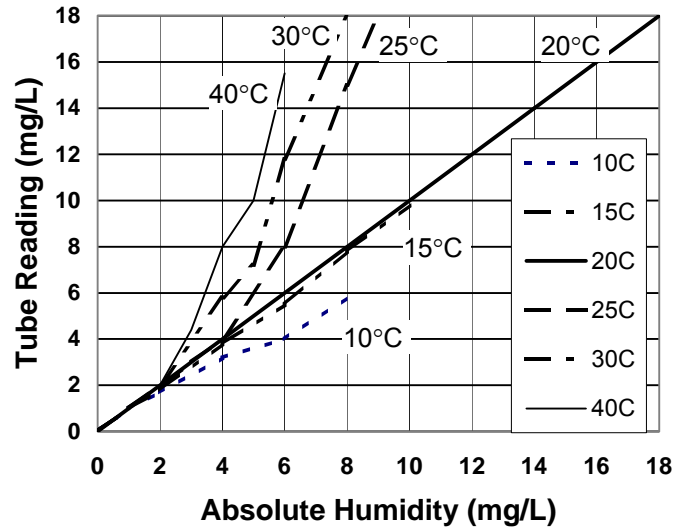
Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
CH <sub>4</sub>	25000	0
CO <sub>2</sub>	200000	0
CO	500	0
H <sub>2</sub> S	1000	0
SO <sub>2</sub>	3500	0
HCl	2000	0
NO <sub>2</sub>	460	0
NH <sub>3</sub>	460	1
PH <sub>3</sub>	40	0
Acetone	1000	1 (green)
Ethanol	2000	1.5

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

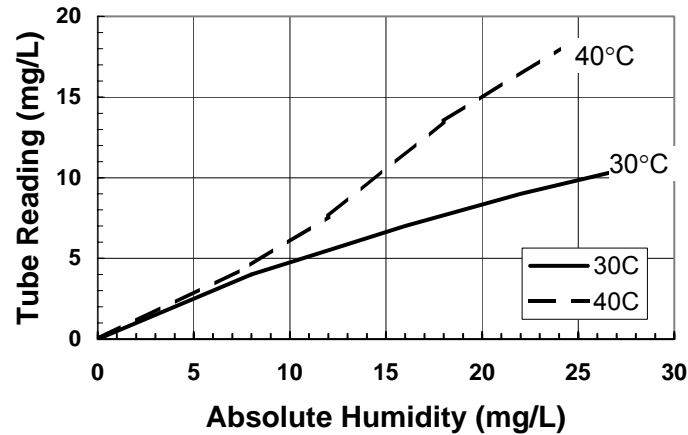
Caution: Dispose of spent or expired tubes according to local regulations.  
Possibly hazardous materials are given under the section Reaction Principle.



**Fig. 1. Temp. Correction, 1 Pump Stroke**



**Fig. 2. Temp. Correction, 1/2 Stroke**



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