



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

## Carbon Dioxide CO<sub>2</sub> No. 10-104-50

	Extended Range	Extended Range	Standard Range
Range (ppmv)	0.25 - 5%	0.5 - 10%	1 - 20%
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	0.25	0.5	1

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

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

Humidity: No effect 5 - 100% RH

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: White → Purple

Reaction Principle:  $\text{CO}_2 + \text{H}_2\text{NNH}_2 \rightarrow \text{H}_2\text{NNHCO}_2\text{H}$  (pH indicator change)

<u>Cross-sensitivity:</u> Substance	Concentration (ppmv)	Apparent Reading*
CO	3000	0
SO <sub>2</sub>	200	0
NO	100	0
NH <sub>3</sub>	300	0
CH <sub>4</sub>	25000	0
H <sub>2</sub> S	100	0
Hexane	1200	0
Isobutylene	100	0
Toluene	100	0

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

Other Possible Interferences: Acid gases

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