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# Gas Detection Tube Data Sheet

## Carbon Dioxide CO<sub>2</sub> No. 10-104-40

	Extended Range	Standard Range	Extended Range
Range	0.025 – 0.5%	0.05 - 1%	0.1 - 2%
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 2	2	1.5
Correction Factor	0.5	1	2

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

Linearity with No. of Pump Strokes:  $r^2 = 0.994$

Humidity: No effect 5 - 85% RH

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

Temp (°C/°F)	0/32	10/50	21/70	40/104
Corr. Factor	1.2	1.1	1.0	0.75

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)

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
CO	250	0
SO <sub>2</sub>	10	0.1%
NO	100	0
NH <sub>3</sub>	10%	0
CH <sub>4</sub>	2.5%	0
H <sub>2</sub> S	0.5%	0.1%
Hexane	1200	0
Isobutylene	100	0
Benzene	100	0
Toluene	400	0

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

Other Possible Interferences: Acid gases. Ammonia interferes in mixtures.

Note: Tube should be read immediately after exposure.

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