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Gas Detection Tube Data Sheet

Carbon Monoxide CO No. 10-102-20

	Extended Range	Standard Range	Extended Range
Range (ppmv)	2.5 - 50	5 - 100	10 - 200
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)*: $\leq \pm 12\%$

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

Humidity: No effect 5 - 100% RH.

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

Temp (°C/°F)	0/32	10/50	25/77	40/104
Corr. Factor	0.80	0.83	1.0	1.15

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

Color Change: White → Light Brown Ring

Reaction Principle: $5CO + I_2O_5 + H_2S_2O_7 \rightarrow I_2 + CO_2 + \text{sulfur products}$

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*	Interferes in Mixture
H ₂	100%	0	no
NO	100	40	no data
H ₂ S	25	7	additive
NH ₃	300	0	no data
CH ₄	25000	0	no
Hexane	100	entire tube #	no data
Isobutylene	100	5	no data
Toluene	100	5 (d. purple)	no data
Trichloroethylene	25	~120 (faint) [∞]	no data

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

#Faint brown color over entire tube length. [∞]Measures 0.5-5 ppm Trichloroethylene using 2 strokes with a correction factor of 0.1, but the stain is very faint.

Other Possible Interferences: Hydrocarbons and similar reducing gases. Most hydrocarbon interferences can be eliminated using a pretreatment tube. Can be used to measure CO in pure hydrogen.

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