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Gas Detection Tube Data Sheet

Sulfur Dioxide SO₂ No. 10-107-40

	Extended Range	Standard Range	Extended Range
Range (ppmv)	0.1 – 2.5%	0.2 - 5%	0.4 - 10%
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: $r^2 = 0.999$

Humidity: No effect 5 - 90% RH

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

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

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

Color Change: Yellow → Green

Reaction Principle: $\text{SO}_2 + \text{Cr(VI)} + \text{H}_2\text{O} \rightarrow \text{H}_2\text{SO}_4 + \text{Cr(III)}$

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
CO	3000	0
CO ₂	5%	0
NH ₃	5%	2.3% #
CH ₄	2.5%	0
H ₂ S	50	0
Hexane	1500	0
Isobutylene	2000	0
Benzene	100	0

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

#Forms a bright yellow color and reduces reading in mixture.

Other Possible Interferences: Reducing gases

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