



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

## Sulfur Dioxide SO<sub>2</sub> No. 10-107-30

	Extended Range	Extended Range	Standard Range
Range (ppmv)	50 - 1000	100 - 2000	200 - 4000
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 1	1	1
Correction Factor	0.25	0.5	1

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

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

Humidity: No effect 5 - 50% RH; 100% RH reduces the response by about 40%

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

Temp (°C/°F)	0/32	10/50	25/77	40/104
Corr. Factor	1.1	1.0	1.0	1.0

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

Color Change: Blue → Yellow

Reaction Principle:  $\text{SO}_2 + 2\text{NaOH} \rightarrow \text{Na}_2\text{SO}_3 + \text{H}_2\text{O}$  (pH indicator change)

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
CO	3000	0
CO <sub>2</sub>	10%	0
NO	100	0
NH <sub>3</sub>	300	0 <sup>#</sup>
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.

<sup>#</sup>Reduces reading in mixture.

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.