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## Gas Detection Tube Data Sheet Hydrogen Sulfide H<sub>2</sub>S No. 10-103-05

	Extended Range	Standard Range	Extended Range
Range (ppmv)	0.1 – 1.5	0.2 - 3	0.4 – 6
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 2	2	1
Correction Factor	0.5	1	2

<u>Precision (Relative Standard Deviation)\*</u>: ≤ ± 12%

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

Humidity: No effect between 5 - 90% RH.

Temperature Range: No effect between 0 - 40°C (32 - 104°F).

Storage Life: 1 year in darkness at 5 - 25°C (40 - 77°F). Refrigeration preferred.

<u>Color Change</u>: Pale orange  $\rightarrow$  Pink

Reaction Principle: Pretube eliminates humidity

 $H_2S$  +  $HgCl_2 \rightarrow$  Mercury sulfide product + HCl

HCl + Base  $\rightarrow$  Chloride Salt + H<sub>2</sub>O (dye color change)

<u>Cross-sensitivity</u> : Substance	Concentration (ppmv)	Apparent Reading*
Methyl mercaptan	3	0#
Butyl mercaptan	3	0#
NH <sub>3</sub>	100	0
NO <sub>2</sub>	5	0
SO <sub>2</sub>	100	0
CS <sub>2</sub>	100	0
со	250	0
Hexane	100	0
Isobutylene	100	0^
Toluene	100	0

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

<sup>#</sup> Interferes at higher concentrations.

^ Reduces response when mixed with H<sub>2</sub>S.

Other Possible Interferences: HCI and other acids.

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