



1. PERFORMANCE

- 1) Measuring range :
 - Hydrogen sulphide 1-30 ppm
 - Mercaptans 0.5-5 ppm
 - Number of pump strokes 1 (100mℓ)
- 2) Sampling time : 3 minutes/1 pump stroke
- 3) Detectable limit :
 - Hydrogen sulphide 0.2 ppm
 - Mercaptans 0.2 ppm
- 4) Shelf life : 2 years
- 5) Operating temperature : 0 ~ 40 °C
- 6) Reading : Direct reading from the scale calibrated by 1 pump stroke
- 7) Colour change :
 - Hydrogen sulphide White → Dark brown
 - Mercaptans Pale yellow → Pink

2. RELATIVE STANDARD DEVIATION

RSD-low : 10% RSD-mid. : 10% RSD-high : 10%

3. CHEMICAL REACTION

Hydrogen sulphide detector tube : $\text{H}_2\text{S} + \text{Pb}(\text{CH}_3\text{CO}_2)_2 \rightarrow \text{PbS} + 2\text{CH}_3\text{CO}_2\text{H}$

Mercaptans detector tube : $\text{R} \cdot \text{SH} + \text{HgCl}_2 \rightarrow \text{RS}(\text{HgCl}) + \text{HCl}$

4. CALIBRATION OF THE TUBE

Hydrogen sulphide STANDARD GAS CYLINDER METHOD

Mercaptans STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | Interference | ppm | Coexistence |
|-------------------------------------|---|---------------------------------|---|
| H₂S detector tube | | | |
| Sulphur dioxide | The accuracy of readings is not affected. | H ₂ S conc. × 1/3 | The maximum end point of the stain becomes indiscernable and higher readings are given. |
| Nitrogen dioxide | ∕ | H ₂ S conc. × 1/5 | Lower readings are given. |
| R·SH detector tube | | | |
| Nitrogen dioxide | The accuracy of readings is not affected. | 2 | Lower readings are given. |
| Ammonia | ∕ | R·SH conc. × 10 | The stain from the gas inlet side is faded and lower readings are given. |
| Hydrogen sulphide | | 30 | The maximum end point of the stain becomes indiscernable. |