



1. PERFORMANCE

- 1) Measuring range : 50-1,600 ppm
- Number of pump strokes : 1 (100mL)
- 2) Sampling time : 1 minute / 1 pump stroke
- 3) Detectable limit : 20 ppm
- 4) Shelf life : 3 years
- 5) Operating temperature : 0~40°C
- 6) Temperature compensation : Necessary(See "TEMPERATURE CORRECTION TABLE")
- 7) Reading : Direct reading from the scale calibrated by 1 pump stroke
- 8) Colour change : Pale yellow → Dark blue

2. RELATIVE STANDARD DEVIATION

RSD-low : 10% RSD-mid. : 5% RSD-high : 5%

3. CHEMICAL REACTION

By reacting with Palladium sulphate and Ammonium molybdate, Palladium sulphate is produced.
 $H_2S + PdSO_4 + (NH_4)_2MoO_4 \rightarrow PdS$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | Interference | ppm | Coexistence |
|------------------|--------------|-----|--|
| Carbon monoxide | | 10 | Whole reagent is changed to Blue and higher readings are given. |
| Ethylene | | 5 | Similar stains are produced and higher readings are given. |
| Propylene | | 5 | // |
| Butylene | | 5 | // |
| Acetylene | | 5 | // |
| Methylacetylene | | 5 | // |
| Hydrogen cyanide | | — | White stain is produced and discolouration by Hydrogen sulphide is interfered. |
| Ammonia | | — | // |
| Sulphur dioxide | | 6% | The accuracy of readings is not affected. |

TEMPERATURE CORRECTION TABLE

| Tube Readings (ppm) | Corrected Concentration (ppm) | | | | |
|---------------------|-------------------------------|---------------|---------------|---------------|----------------|
| | 0 °C (32 °F) | 10 °C (50 °F) | 20 °C (68 °F) | 30 °C (86 °F) | 40 °C (104 °F) |
| 1600 | 1100 | 1400 | 1600 | 1700 | 1700 |
| 1400 | 980 | 1200 | 1400 | 1500 | 1500 |
| 1200 | 850 | 1000 | 1200 | 1300 | 1300 |
| 1000 | 700 | 850 | 1000 | 1000 | 1100 |
| 800 | 600 | 700 | 800 | 800 | 900 |
| 600 | 470 | 550 | 600 | 600 | 700 |
| 400 | 340 | 400 | 400 | 400 | 400 |
| 300 | 270 | 300 | 300 | 300 | 300 |
| 200 | 180 | 200 | 200 | 200 | 200 |
| 100 | 100 | 100 | 100 | 100 | 100 |
| 50 | 50 | 50 | 50 | 50 | 50 |