

1. PERFORMANCE

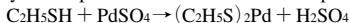
- | | | | |
|-----------------------------|--|-----------|-----------|
| 1) Measuring range | : 4-160 ppm | 2-80 ppm | 1-40 ppm |
| Number of pump strokes | : 1 (100mℓ) | 2 (200mℓ) | 4 (400mℓ) |
| 2) Sampling time | : 3 minutes/2 pump strokes | | |
| 3) Detectable limit | : 0.2 ppm (200mℓ) | | |
| 4) Shelf life | : 2 years | | |
| 5) Operating temperature | : 0 ~ 40 °C | | |
| 6) Temperature compensation | : Necessary (0 ~ 20 °C) (See "TEMPERATURE CORRECTION TABLE") | | |
| 7) Reading | : Direct reading from the scale calibrated by 2 pump strokes | | |
| 8) Colour change | : White → Yellow | | |

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Ethyl mercaptan reacts with Palladium sulphate.



4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | ppm | Interference | ppm | Coexistence |
|-------------------|-----|-----------------------------------|-----|---------------------------|
| Carbon monoxide | 150 | Dark grey stain is produced. | | |
| Ethylene | 200 | | | |
| Hydrogen sulphide | 40 | Dark brown stain is produced. | | |
| Acetylene | | Pale brown stain is produced | | |
| Methyl mercaptan | | Reddish yellow stain is produced. | | |
| Methyl sulphide | | | 1 | Lower readings are given. |
| Nitrogen dioxide | | | 1 | ∕ |
| Chlorine | | | 0.2 | ∕ |

(NOTE)

- 1) Max. 40 ppm of Hydrogen sulphide is eliminated by pretreat reagent.
- 2) In case of 1 or 4 pump strokes, following formula is available for the actual concentration.

$$\text{Actual concentration} = \text{Temperature corrected value} \times \frac{2}{\text{Number of strokes}}$$

TEMPERATURE CORRECTION TABLE

| Scale Readings (ppm) | True Concentration (ppm) | | |
|----------------------|--------------------------|---------------|----------------------|
| | 0 °C (32 °F) | 10 °C (50 °F) | 20-40 °C (68-104 °F) |
| 80 | 91 | 85 | 80 |
| 70 | 80 | 75 | 70 |
| 60 | 69 | 64 | 60 |
| 50 | 57 | 53 | 50 |
| 40 | 45 | 42 | 40 |
| 30 | 33 | 31 | 30 |
| 20 | 21 | 20 | 20 |