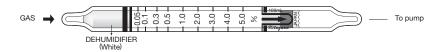
ETHYL ALCOHOL (ETHANOL)



1. PERFORMANCE

1) Measuring range 0.05-5.0%Number of pump strokes $1(100\text{m}\ell)$

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit 0.01%4) Shelf life 3 years 5) Operating temperature $0 \sim 40\%$

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE") 7) Reading : Direct reading from the scale calibrated by 1 pump stroke

8) Colour change

∴ Yellowish orange → Light green (The top of discoloured layer is Brown, but read

at the top of Pale green.)

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Chromium oxide is reduced. $C_2H_5OH + C_7f^6 + H_3PO_4 \rightarrow C_7f^3 + C_7f^3$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | Interference | Coexistence | |
|---|-------------------------------|---|--|
| Aliphatic hydrocarbons (over C ₃) | Similar stain is produced. | Higher reading are given. | |
| Alcohols | " | " | |
| Esters | " | " | |
| Ketones | " | " | |
| Aromatic hydrocarbons | " | " | |
| Halogenated hydrocarbons | Pale brown stain is produced. | If the maximum end point of the stain is discernable, the accuracy of readings is not affected. | |

TEMPERATURE CORRECTION TABLE

| Tube | Corrected Concentration (%) | | | | |
|----------|-----------------------------|------------------|------------------|--------|---------|
| Readings | 0°C | 10 °C (50 °F) | 20 °C (68 °F) | 30℃ | 40°C |
| (%) | (32°F) | (50 F) | (68 F) | (86°F) | (104°F) |
| 5.0 | _ | - | 5.0 | 3.9 | 3.2 |
| 4.0 | _ | | 4.0 | 3.2 | 2.6 |
| 3.0 | _ | | 3.0 | 2.4 | 2.0 |
| 2.0 | | | 2.0 | 1.6 | 1.3 |
| 1.0 | | 1.9 | 1.0 | 0.8 | 0.7 |
| 0.5 | | 0.8 | 0.5 | 0.4 | 0.3 |
| 0.3 | 0.9 | 0.4 | 0.3 | 0.3 | 0.2 |
| 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |