

1. PERFORMANCE

- 1) Measuring range : 20-1,000 ppm
Number of pump strokes : 1 (100mℓ)
- 2) Sampling time : 1.5 minutes/1 pump stroke
- 3) Detectable limit : 5 ppm
- 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 1 pump stroke
- 8) Colour change : Yellow → Pale blue

2. RELATIVE STANDARD DEVIATION

RSD-low : 15% RSD-mid. : 10% RSD-high : 10%

3. CHEMICAL REACTION

Potassium dichromate is reduced
 $\text{CH}_3\text{OH} + \text{Cr}^{6+} + \text{H}_2\text{SO}_4 \rightarrow \text{Cr}^{3+}$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	Coexistence
Alcohols	FIG.1	Similar stain is produced.	Higher readings are given.
Esters	FIG.2		∕
Paraffin hydrocarbons (more than C ₃)		Whole reagent is changed to Brown.	∕
Aromatic hydrocarbons		∕	∕
Ketones		∕	∕
Halogenated hydrocarbons		∕	∕

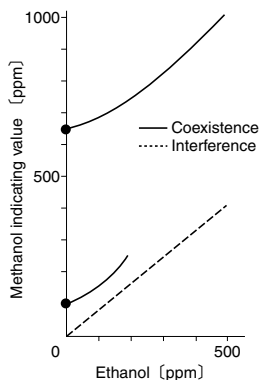


FIG.1 Influence of Ethanol

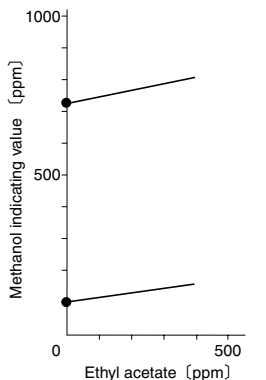


FIG.2 Influence of Ethyl acetate

TEMPERATURE CORRECTION TABLE

Scale Readings (ppm)	True Concentration (ppm)		
	0 °C (32 °F)	10 °C (50 °F)	20-40 °C (68-104 °F)
1000	1200	1100	1000
800	960	880	800
600	600	660	600
400	480	440	400
200	240	220	200
100	120	110	100
50	60	50	50
20	24	20	20