

METHYL ALCOHOL (METHANOL)



1. PERFORMANCE

- 1) Measuring range : 0.05-6.0 %
- Number of pump strokes : 1 (100mℓ)
- 2) Sampling time : 1.5 minutes/1 pump stroke
- 3) Detectable limit : 100 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 : Yellow orange → Pale green

2. RELATIVE STANDARD DEVIATION

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

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

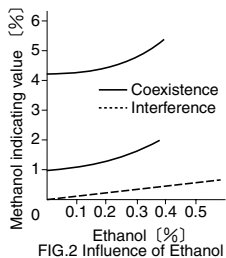
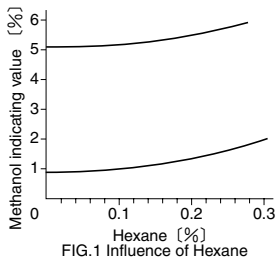
GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Paraffin hydrocarbons (more than C ₃) FIG.1	Similar stain is produced.		Higher readings are given.
Alcohols FIG.2	∕		∕
Esters	∕	50	∕
Ketones	∕		∕
Aromatic hydrocarbons	∕		∕
Halogenated hydrocarbons	Reagent is discoloured to Brown slightly.		If the top of the discolouration can be obtained, the accuracy of readings is not affected.

(NOTE)

Although the top of light green stain changes to Brown gradually, read the concentration on the top of the light green stain shortly.



TEMPERATURE CORRECTION TABLE

Scale Readings (%)	True Concentration (%)				
	0 °C (32 °F)	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 °C (104 °F)
6.0			6.0	4.3	3.3
5.0			5.0	3.7	2.8
4.0			4.0	3.0	2.3
3.0		5.1	3.0	2.3	1.8
2.0		3.0	2.0	1.6	1.2
1.0	2.7	1.4	1.0	0.8	0.6
0.5	1.0	0.7	0.5	0.4	0.3
0.1	0.1	0.1	0.1	0.1	0.1