# METHYL ALCOHOL (METHANOL)



## 1. PERFORMANCE

1) Measuring range 20-1,000 ppmNumber of pump strokes  $1(100\text{m}\ell)$ 

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit : 5 ppm4) Shelf life : 2 years5) Operating temperature  $: 0 \sim 40 \,^{\circ}\text{C}$ 

6) Temperature compensation : Necessary (0  $\sim$  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

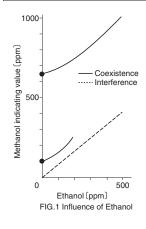
Chromium oxide is reduced  $CH_3OH + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$ 

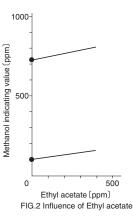
## 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

#### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	Coexistence				
Alcohols	FIG.1	Similar stain is produced.	Higher readings are given.				
Esters FIG.2			"				
Aliphatic hydrocarbons (more than C <sub>3</sub> )		Whole reagent is changed to Pale brown.	"				
Aromatic hydrocarbons		"	"				
Ketones		"	"				
Halogenated hydrocarbons		"	"				





### TEMPERATURE CORRECTION TABLE

	Tube Readings (ppm)	Corrected Concentration (ppm)				
		0℃ (32°F)	10 ℃ (50 °F)	20-40 °C (68-104 °F)		
	1000	1200	1100	1000		
	800	960	880	800		
	600	720	660	600		
	400	480	440	400		
	200	240	220	200		
	100	120	110	100		
	50	60	55	50		
	20	24	22	20		