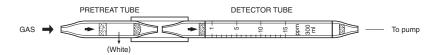
ETHYLENE OXIDE



1. PERFORMANCE

1) Measuring range : 1-15 ppmNumber of pump strokes $3(300 \text{m} \ell)$

2) Sampling time : 4.5 minutes/3 pump strokes

3) Detectable limit 0.5 ppm4) Shelf life 2 years5) Operating temperature $10 \sim 40 \text{ }^{\circ}\text{C}$

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE") 7) Reading : Direct reading from the scale calibrated by 3 pump strokes

8) Colour change : Pale pink → Yellow

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By decomposing with an Oxidizer, Formic acid is produced and PH indicator is discoloured.

CH2CH2O + H2SO4→HOCH2CH2OH

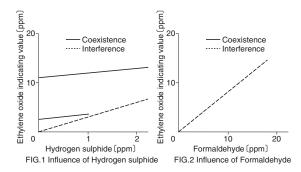
 $HOCH_2CH_2OH + HIO_4 \rightarrow 2HCHO + HIO_3 + H_2O$ $HCHO + HIO_4 + H_2SO_4 \rightarrow HCOOH + HIO_3$ $HCOOH + NaOH \rightarrow Na(HCOO) + H_2O$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	Coexistence	
Aldehydes FIG.2		Similar stain is produced.	Higher readings are given.	
Sulphur dioxide		Pale yellow stain is produced.	"	
Hydrogen sulphide	FIG.1	"	"	



TEMPERATURE CORRECTION TABLE

	Tube Readings (ppm)	Corrected Concentration (ppm)					
		10 ℃ (50 °F)	15-25 ℃ (59-77 °F)	30 ℃ (86 °F)	40 ℃ (77 °F)		
	15	19.0	15.0	13.0	10.0		
	10	12.5	10.0	8.5	7.0		
	5	6.0	5.0	4.0	3.5		
	1	1.0	1.0	1.0	0.5		