SULPHUR DIOXIDE IN CARBON DIOXIDE



1. PERFORMANCE

1) Measuring range Sumbler of pump strokes 1 $(100m\ell)$ 0.1-3 ppm $(1(100m\ell))$ 4 $(400m\ell)$ 2) Sampling time 2 minutes/1 pump stroke 3) Detectable limit 2 minutes/1 pump stroke 4) Shelf life 2 3 years

4) Shelf life5) Operating temperature

5) Operating temperature : $0 \sim 40 \, ^{\circ} \text{C}$ 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")

7) Reading : Direct reading from the scale calibrated by 1 pump stroke 8) Colour change : Blue purple → White

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

lodine is reduced.

 $SO_2 + I_2 + 2H_2O \rightarrow 2HI + H_2SO_4$

4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence	
Hydrogen Sulphide	Whole reagent is changed to Pink.	0.5	Higher readings are given.	
Nitrogen Dioxide	Whole reagent is changed to Black.	0.5	Lower readings are given.	
Ammonia	The accuracy of readings is not affected.	1.0	"	

TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)						
Readings (ppm)	0°C (32°F)	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 °C (104 °F)		
25	40.0	32.5	25.0	22.5	19.0		
20	28.0	24.0	20.0	17.7	15.5		
15	20.0	17.5	15.0	13.5	12.0		
10	12.5	11.3	10.0	9.3	8.5		
8	10.0	9.0	8.0	7.5	7.0		
6	7.5	6.8	6.0	5.8	5.5		
4	4.4	4.2	4.0	3.8	3.6		
2	2.0	2.0	2.0	2.0	2.0		
1	1.0	1.0	1.0	1.0	1.0		
0.5	0.5	0.5	0.5	0.5	0.5		