CARBON DISULPHIDE



1. PERFORMANCE

1) Measuring range : 2-50 ppm 0.8-20 ppm 2(200ml) 4 (400m l) Number of pump strokes : 4 minutes/2 pump strokes 2) Sampling time

3) Detectable limit $0.3 \text{ ppm} (400 \text{m} \ell)$

4) Shelf life 3 years (Necessary to store in a refrigerated place; $0 \sim 10^{\circ}$ C)

0~40℃ 5) Operating temperature

Necessary (See "TEMPERATURE CORRECTION TABLE") 6) Temperature compensation 7) Reading Direct reading from the scale calibrated by 2 pump strokes.

8) Colour change : Pink → Yellow

2. RELATIVE STANDARD DEVIATION

C.V-low: 10% C.V.-mid: 10% C.V.-high: 10%

3. CHEMICAL REACTION

Sulphur dioxide is produced by an Oxidizer.

By reacting between this Sulphur dioxide and alkali,

PH indicator is discoloured.

 $CS_2 + CrO_3 + H_2SO_4 \rightarrow SO_2$ $SO_2 + 2NaOH \rightarrow Na_2SO_3 + H_2O$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

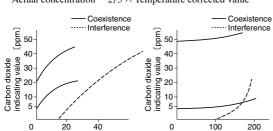
5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Sulphur dioxide FIG.1	15	Similar stain is produced.		Higher readings are given.
Hydrogen sulphide FIG.2	100	"	120	"
Chlorine		Pale pink stain is produced.		"

(NOTE)

In case of 4 pump strokes, following formula is available for the actual concentration.

Actual concentration = $2/5 \times$ Temperature corrected value



Sulphur dioxide (ppm) FIG.1 Influence of Sulphur dioxide

Hydrogen sulphide (ppm) FIG.2 Influence of Hydrogen sulphide

TEMPERATURE CORRECTION TABLE

Scale	True Concentration (ppm)						
Readings (ppm)	0°C (32°F)	10℃ (50°F)	20°C (68° F)	30°C (86°F)	40 °C (104° F)		
50	72	59	50	43	38		
45	65	54	45	39	34		
40	58	48	40	34	30		
35	51	42	35	30	26		
30	44	36	30	26	22		
25	37	30	25	21	18		
20	31	25	20	17	14		
15	24	19	15	13	10		
10	16	12	10	8	7		
5	9	7	5	4	З		
2	3	3	2	2	1		