Tube No.
126SB

CARBON DIOXIDE

1. PERFORMANCE

1) Measuring range : 0.05-1.0 %
   Number of pump strokes 1 (100mℓ)
2) Sampling time : 5 minutes/1 pump stroke
3) Detectable limit : 50 ppm
4) Shelf life : 2 years
5) Operating temperature : 0 ~ 40 ℃
6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 1 pump stroke
8) Colour change : Purple blue → Pale pink

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with alkali, PH indicator is discoloured.

$CO_2 + 2NaOH \rightarrow Na_2CO_3 + H_2O$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Chlorine	20	Pale yellowish blue stain is produced.		When CO_2 comcentration is more than 300 ppm, the accuracy of readings is not affected.
Sulphur dioxide	100	〃		〃
Hydrogen cyanide		The accuracy of readings not affected.		〃
Hydrogen sulphide		〃		〃
Nitrogen dioxide	30	Pale yellowish blue stain is produced.		〃

TEMPERATURE CORRECTION TABLE

Scale Readings (%)	True Concentration (%)				
	0℃ (32°F)	10℃ (50°F)	20℃ (68°F)	30℃ (86°F)	40℃ (104°F)
1.0	1.16	1.09	1.00	0.94	0.89
0.9	1.05	0.98	0.90	0.85	0.80
0.8	0.93	0.87	0.80	0.75	0.70
0.7	0.81	0.76	0.70	0.66	0.62
0.6	0.70	0.65	0.60	0.57	0.53
0.5	0.58	0.54	0.50	0.47	0.44
0.4	0.46	0.43	0.40	0.38	0.35
0.3	0.36	0.33	0.30	0.28	0.26
0.2	0.24	0.22	0.20	0.19	0.17
0.1	0.12	0.11	0.10	0.09	0.08