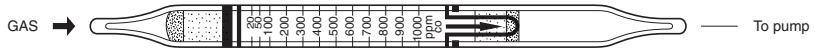
Tube No.
106SA

CARBON MONOXIDE



1. PERFORMANCE

1) Measuring range	: 20-1,000 ppm	5-50 ppm	40-2,000 ppm
Number of pump strokes	1 (100mℓ)	4 (400mℓ)	1/2 (50mℓ)
2) Sampling time	: 3 minutes/1 pump stroke		
3) Detectable limit	: 2 ppm (400mℓ)		
4) Shelf life	: 3 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	: Yellow → Dark brown		

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Potassium disulphate palladate (II) is reduced, and Palladium is liberated.

$CO + K_2Pd(SO_3)_2 \rightarrow Pd$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Ethylene	5,000	Pale grey stain is produced.	5,000	The top of discoloured layer becomes unclear and higher readings are given.
Hydrogen	5,000	Greyish yellow stain is produced.	5,000	Whole layer is discoloured to Greyish yellow and the top of discoloured layer becomes unclear.
Acetylene	1.5	Dark green stain is produced.	CO conc. × 1/5	Higher readings are given.
Sulphur dioxide	100	Original colour is faded.	〃	〃
Nitrogen dioxide		The accuracy of readings is not affected.	〃	〃

(NOTE)

When the concentration is below 50 ppm, 4 pump strokes can be used to detemine the lower concentration with the following formula ;

Actual concentration = 1/4 × Temperature corrected value

When the concentration is over 1,000 ppm, 1/2 pump strokes can be used to detemine higher concentration with the following formula ;

Actual concentration = 2 × Temperature corrected value

TEMPERATURE CORRECTION TABLE

Tube Readings (ppm)	Corrected Concentration (ppm)				
	0℃ (32℉)	10℃ (50℉)	20℃ (68℉)	30℃ (86℉)	40℃ (104℉)
1,000	870	930	1,000	1,030	1,060
900	780	840	900	930	960
800	690	750	800	830	850
700	610	680	700	720	720
600	520	560	600	620	640
500	430	470	500	520	540
400	350	370	400	410	430
300	260	280	300	310	320
200	180	190	200	210	220
100	90	100	100	100	110