CARBON MONOXIDE



1. PERFORMANCE

1) Measuring range : 10-250 ppm Number of pump strokes 3(300mL)

2) Sampling time : 9 minutes/3 pump strokes

3) Detectable limit : 1 ppm(300mL) 4) Shelf life : 2 years : 0~40℃ 5) Operating temperature

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

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.

 $CO + K_2Pd(SO_3)_2 \rightarrow K_2 (SO_3)_2PdCO$ $K_2 (SO_3)_2PdCO \rightarrow CO_2 + SO_2 + Pd + K_2SO_3$

4. CAI IBRATION 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. \times 1/5	Higher readings are given.	
Sulphur dioxide		The accuracy of readings is not affected.	//	"	
Nitrogen dioxide		//	//	"	

TEMPERATURE CORRECTION TABLE

Scale	True Concentration (ppm)						
Readings (ppm)	0 °C (32° F)	10 °C (50° F)	20 °C (68° F)	30 °C (86° F)	40 °C (104° F)		
250	210	230	250	275	300		
200	170	185	200	220	240		
150	130	140	150	165	180		
100	80	90	100	110	120		
75	65	70	75	80	85		
50	40	45	50	55	60		
20	18	20	20	20	22		
10	10	10	10	10	10		