CARBON MONOXIDE



1. PERFORMANCE

1) Measuring range 1.30-500 ppmNumber of pump strokes $1.(100\text{m}\ell)$ 2) Sampling time $1.100\text{m}\ell$ 3) Detectable limit 1.100 ppm4) Shelf life 1.500 years5) Operating temperature 1.5000 years

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.: 10% RSD-high: 10%

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	Interference	ppm	Coexistence	
Sulphur dioxide	The accuracy of readings is not affected.	CO conc.X 1/2	Higher reading are given.	
Ammonia	White stain is produced.	CO conc. X 100	"	
Acetylene	Similar stain is produced.	CO conc. X 1/20	"	
Hydrogen sulphide	Brown stain is produced.	CO conc. X 1/2	"	

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)	50 °C (122 °F)	60 ℃ (140 °F)	
500	400	450	500	550	600	650	700	
400	320	360	400	440	480	520	560	
300	240	270	300	330	360	380	400	
200	160	180	200	220	240	260	280	
100	80	90	100	110	120	130	140	
50	40	50	50	50	60	65	70	
30	30	30	30	30	30	35	40	