

1. PERFORMANCE

- 1) Measuring range : 0.1-2.0 %
Number of pump strokes : 1 (100mL)
- 2) Sampling time : 3 minutes/1 pump stroke
- 3) Detectable limit : 0.02 %
- 4) Shelf life : 1 year
- 5) Operating temperature : 0 ~ 40 °C
- 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
- 7) Reading : Direct reading from the scale calibrated by 1 pump stroke
- 8) Colour change : White → Dark brown

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Iodine pentoxide is reduced.
 $\text{CO} + \text{I}_2\text{O}_5 + \text{H}_2\text{SO}_4 \rightarrow \text{I}_2$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	%	Coexistence
Acetylene FIG.1	Similar stain is produced.	0.3	Higher reading are given.
Ethylene FIG.2	∕	0.15	∕
Hexane	Speckled stain is produced.	0.1	The maximum point of the stained layer becomes unclear and higher readings are given.
Isobutane	∕	0.2	
Propane	∕	15	

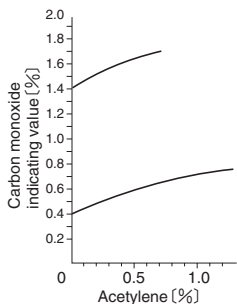


FIG.1 Influence of Acetylene

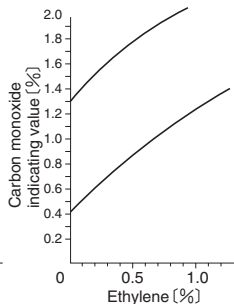


FIG.2 Influence of Ethylene

TEMPERATURE CORRECTION TABLE

Tube Readings (%)	Corrected Concentration (%)				
	0 °C (32 °F)	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 °C (104 °F)
2.0	1.24	1.52	2.00	2.98	—
1.8	1.14	1.38	1.80	2.64	—
1.6	1.04	1.25	1.60	2.28	2.86
1.4	0.93	1.11	1.40	1.90	2.50
1.2	0.82	0.97	1.20	1.62	2.12
1.0	0.71	0.82	1.00	1.33	1.75
0.8	0.60	0.68	0.80	1.02	1.38
0.6	0.47	0.53	0.60	0.73	0.98
0.4	0.33	0.37	0.40	0.48	0.58
0.2	0.17	0.18	0.20	0.22	0.25
0.1	0.08	0.09	0.10	0.11	0.12