



1. PERFORMANCE

- 1) Measuring range :
 - Acetylene 20-300 ppm
 - Ethylene 200-2000 ppm
 - Number of pump strokes 1 (100ml)
- 2) Sampling time : 3 minutes/1 pump stroke with orifice
- 3) Detectable limit :
 - Acetylene 0.1 ppm
 - Ethylene 1 ppm
- 4) Shelf life : 1 year
- 5) Operating temperature : 10 ~ 40 °C
- 6) Temperature compensation :
 - Acetylene No temperature correction is necessary.
 - Ethylene Necessary (refer to "Table 2. Temperature CorrectionTable")
- 7) Reading : Direct reading from the scale calibrated by 1 pump stroke
- 8) Colour change :
 - Acetylene Yellow → Dark brown
 - Ethylene Pale yellow → Blue

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Acetylene detector tube : $C_2H_2 + K_2Pd(SO_3)_2 \rightarrow Pd$

Ethylene detector tube : $C_2H_2 + PdSO_4 + (NH_4)_2Mo_3O_8$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

TEMPERATURE CORRECTION TABLE

Tube Readings (ppm)	Corrected Concentration (%)			
	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 °C (104 °F)
2000	1550	2000	—	—
1800	1400	1800	—	2050
1600	1300	1600	—	1900
1400	1150	1400	—	1600
1200	1000	1200	—	1400
1000	900	1000	—	1200
800	750	800	—	950
600	600	600	—	700