

1. PERFORMANCE

- 1) Measuring range : 0.005-1.8 %
- Number of pump strokes : 1 (100mℓ)
- 2) Sampling time : 1 minute/1 pump stroke
- 3) Detectable limit : 0.0005 % (5 ppm)
- 4) Shelf life : 1 year (Necessary to store in refrigerated conditions ; 0 ~ 10 °C)
- 5) Operating temperature : 0 ~ 40 °C
- 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
- 7) Reading : Concentration chart method
- 8) Colour change : Yellow → Pink

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with Hydroxylamine hydrochloride, Hydrogen chloride is liberated and PH indicator is discoloured.
 $\text{CH}_2 = \text{CHCHO} + \text{NH}_2\text{OH} \cdot \text{HCl} \rightarrow \text{HCl} + \text{CH}_2 = \text{CHCH} = \text{NOH} + \text{H}_2\text{O}$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Acetone FIG.1	Similar stain is produced.	20	Higher readings are given.
Acetaldehyde FIG.2	∕	70	∕
Methyl ethyl ketone FIG.3	∕	60	∕
Methyl isobutyl ketone	∕	500	∕

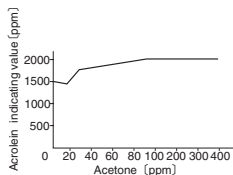


FIG.1 Influence of Acetone.

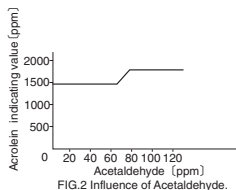


FIG.2 Influence of Acetaldehyde.

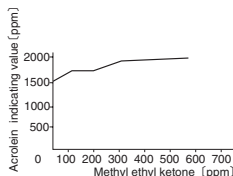


FIG.3 Influence of Methyl ethyl ketone.

TEMPERATURE CORRECTION TABLE

Chart Readings (%)	Corrected Concentration (%)				
	0 °C (32 °F)	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 °C (104 °F)
1.8	—	2.3	1.8	1.3	1.0
1.6	—	2.1	1.6	1.1	0.9
1.4	—	1.85	1.4	1.0	0.75
1.2	2.2	1.6	1.2	0.85	0.65
1.0	1.9	1.35	1.0	0.7	0.5
0.8	1.55	1.1	0.8	0.55	0.4
0.6	1.2	0.85	0.6	0.4	0.3
0.4	0.85	0.6	0.4	0.2	0.15
0.2	0.5	0.3	0.2	0.12	0.1
0.1	0.2	0.15	0.1	0.06	0.04
0.05	0.1	0.08	0.05	0.03	0.015
0.02	0.07	0.05	0.02	0.02	0.01
0.01	0.03	0.02	0.01	0.01	0.005

