

## 1. PERFORMANCE

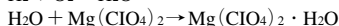
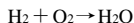
- |                             |  |
|-----------------------------|--|
| 1) Measuring range          | : 0.05-0.8 %   |
| Number of pump strokes      | 1/2 (50ml)   |
| 2) Sampling time            | : 0.5minutes/1/2 pump stroke                                   |
| 3) Detectable limit         | : 0.03 %   |
| 4) Shelf life               | : 3 years  |
| 5) Operating temperature    | : 0 ~ 40 °C  |
| 6) Temperature compensation | : Necessary (See "TEMPERATURE CORRECTION TABLE")               |
| 7) Reading                  | : Direct reading from the scale calibrated by 1/2 pump strokes |
| 8) Colour change            | : Yellow → Green   |

## 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

By reacting with Oxygen in Atmosphere, water vapour is produced. This Water vapour reacts with Magnesium perchlorate and PH indicator is discoloured.



## 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	%	Interference	ppm	Coexistence
Ethanol	FIG.1	0.25	Similar stain is produced.	0.4 % Higher readings are given.
Carbon monoxide			The accurate readings are not affected.	500 Lower readings are given.

## 6.SPECIAL NOTE

- 1) The tube will not respond in the absence of oxygen.
- 2) When the concentration of Hydrogen is 12 to 16 %, pretreat reagent gives a heat but is not dangerous for use in hazardous area.
- 3) When the concentration of Hydrogen is over 40 %, the reading value may be indicated below 0.8 %.In this case, the bottom of the discoloured layer becomes dark purple. In order to make sure that the concentration is extremely high such as 40 %, measure the gas concentration with connecting 2 tubes. If both tubes are discoloured to green, extremely high concentration Hydrogen exists.

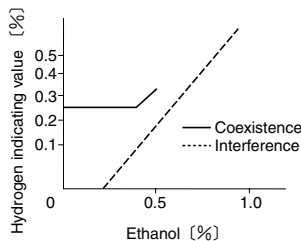


FIG.1 Influence of Ethanol

## TEMPERATURE CORRECTION TABLE

Scale Readings (%)	True Concentration (%)								
	0°C (32°F)	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	25°C (77°F)	30°C (86°F)	35°C (95°F)	40°C (104°F)
0.8	—	—	—	—	0.8	0.68	0.58	0.51	0.45
0.7	—	—	—	1.00	0.7	0.60	0.52	0.45	0.40
0.6	—	—	1.00	0.80	0.6	0.52	0.44	0.39	0.35
0.5	—	—	0.80	0.65	0.5	0.44	0.37	0.33	0.30
0.4	—	—	0.62	0.51	0.4	0.35	0.30	0.27	0.25
0.3	—	0.70	0.46	0.37	0.3	0.28	0.23	0.21	0.19
0.2	0.65	0.47	0.30	0.25	0.2	0.18	0.16	0.14	0.13
0.15	0.46	0.34	0.22	0.19	0.15	0.13	0.12	0.11	0.10
0.1	0.28	0.21	0.15	0.12	0.1	0.09	0.08	0.08	0.07
0.06	0.13	0.10	0.07	0.06	0.05	0.05	0.05	0.05	0.05