

## 1. PERFORMANCE

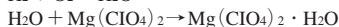
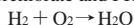
- 1) Measuring range : 0.05-0.8 %
- Number of pump strokes : 1/2 (50mℓ)
- 2) Sampling time : 0.5minutes/1/2 pump stroke
- 3) Detectable limit : 0.03 %
- 4) Shelf life : 3 years
- 5) Operating temperature : 0 ~ 40 °C
- 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
- 7) Reading : Direct reading from the scale calibrated by 1/2 pump strokes
- 8) Colour change : Yellow → Blue (over 0.1 %) or Yellowish green (below 0.1 %)

## 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

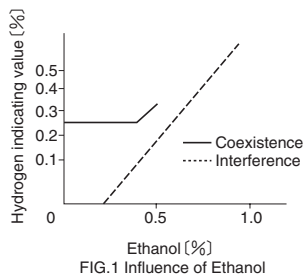
STANDARD GAS CYLINDER METHOD

## 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 accuracy of readings is not affected.	500	Lower readings are given.

## 6. SPECIAL NOTE

- The tube will not respond in the absence of oxygen.
- When the concentration of Hydrogen is 12 to 16 %, pretreat reagent gives a heat but is not dangerous for use in hazardous area.
- 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.



TEMPERATURE CORRECTION TABLE

Tube Readings (%)	Corrected 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	—	—	—	—	0.80	0.88	0.58	0.51	0.45
0.7	—	—	—	1.00	0.70	0.80	0.52	0.45	0.40
0.6	—	—	1.00	0.80	0.80	0.52	0.44	0.39	0.35
0.5	—	—	0.80	0.65	0.50	0.44	0.37	0.33	0.30
0.4	—	—	0.62	0.51	0.40	0.35	0.30	0.27	0.25
0.3	—	0.70	0.46	0.37	0.30	0.26	0.23	0.21	0.19
0.2	0.65	0.47	0.30	0.25	0.20	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	0.10	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