# **CARBON DIOXIDE**



## 1. PERFORMANCE

1) Measuring range  $\begin{array}{c} \text{1-20 \%} \\ \text{Number of pump strokes} \end{array}$ 

2) Sampling time : 1 minute/1 pump stroke

3) Detectable limit : 0.2 % 4) Shelf life : 2 years 5) Operating temperature : 0 ~ 40 ℃

6) Reading : Direct reading from the scale calibrated by 1 pump stroke

7) Colour change : Pink → Yellow

## 2. RELATIVE STANDARD DEVIATION

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

# 3. CHEMICAL REACTION

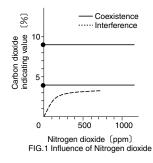
By reacting with alkali, PH indicator is discoloured.  $CO_2 + 2KOH \rightarrow K_2CO_3 + H_2O$ 

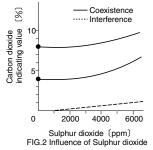
### 4. CALIBRATION OF THE TUBE

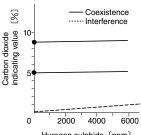
STANDARD GAS CYLINDER METHOD

#### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance		ppm	Interference	ppm	Coexistence
Nitrogen dioxide	FIG.1	50	White stain is produced.	50	Similar stain is produced,but if there is more than 3% of CO <sub>2</sub> ,the accuracy of readings is not affected.
Sulphur dioxide	FIG.2	3,000	Similar stain is produced.	3,000	Higher readings are given.
Hydrogen sulphide	FIG.3	4,000	"	3,000	"







Hyrogen sulphide (ppm) FIG.3 Influence of Hydrogen sulphide