# **SULPHUR DIOXIDE**



## 1. PERFORMANCE

1) Measuring range Number of pump strokes 2) Sampling time 2.0.5-10 ppm  $1(100 \text{m} \ell)$   $2(200 \text{m} \ell)$  1.5 minutes/1 pump stroke

3) Detectable limit :  $0.1 \text{ ppm} (200 \text{m} \ell)$ 

4) Shelf life : 1 year (Necessary to store in a refrigerated place;  $0 \sim 10^{\circ}$ C)

5) Operating temperature :  $0 \sim 40 \,^{\circ}\text{C}$ 

6) Humidity compensation
7) Reading
Correct reading from the scale calibrated by 1 pump stroke

8) Colour change : Pink → Yellow

## 2. RELATIVE STANDARD DEVIATION

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

# 3. CHEMICAL REACTION

By reacting with an Alkali, PH indicator is discoloured. SO<sub>2</sub> + 2NaOH → Na<sub>2</sub>SO<sub>3</sub> + H<sub>2</sub>O

# 4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence	
Nitrogen dioxide	en dioxide Pale pink stain is produced. 3 b		The top of discoloured layer becomes un clear and higher readings are given.	
Hydrogen chloride	"		Higher readings are given.	

#### (NOTE)

 This detector tube is affected by abmbient relative humidity, therefore, it is necessary to compensate the reading of gas detector tube with the following formula and correction confficient table.

Actual concentration = Reading Value  $(ppm) \times Correction Coefficient$ 

2) In case of 2 pump strokes, following formula is available for actual concentration. Actual concentration = 1/2 × Reading value corrected with above formula

#### R H CORRECTION COEFFICIENT TABLE

	10	30	50	60	70	80	90
coefficient of correction	0.9	0.95	1	1.1	1.2	1.3	1.4