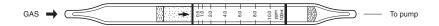
# **PHOSPHINE**



## 1. PERFORMANCE

1) Measuring range : 0.5-10.0 ppm 0.25-5.0 ppm 1-20 ppm Number of pump strokes  $1(100 \text{m} \ell)$   $2(200 \text{m} \ell)$   $1/2(50 \text{m} \ell)$ 

2) Sampling time ∴ 1 minute/1 pump stroke 3) Detectable limit ∴ 0.1 ppm (200m ℓ)

4) Shelf life 1 year5) Operating temperature  $0 \sim 40^{\circ}$ 

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

7) Colour change : Yellow→Pink

#### 2. RELATIVE STANDARD DEVIATION

RSD-low: 15% RSD-mid.: 10% RSD-high: 5%

## 3. CHEMICAL REACTION

By reacting with Mercuric chloride (II), Hydrogen chloride is produced and PH indicator is discoloured.  $PH_3 + 3HgCI_2 \rightarrow P(HgCI)_3 + 3HCI$ 

## 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

0 = = 0 0 0			
Substance	Interference	ppm	Coexistence
Ammonia		20	A stained layer at the side of gas inlet is bleached out and lower readings are given.
Hydrogen sulphide	Similar stain is produced.	50	Higher readings are given.
Mercaptans	"		"

#### (NOTE)

When the concentration is below 0.5ppm, 2 pump strokes can be used to determine the lower concentration with the following formula;

Actual concentration =  $1/2 \times$  Reading value

When the concentration is over 10.0ppm, 1/2 pump strokes can be used to determine the higher concentration with the following formula;

Actual concentration =  $2 \times$  Reading value