PHOSPHINE



1. PERFORMANCE

1) Measuring range 40-1400 ppm 20-700 ppm Number of pump strokes $1/2(50\text{m}\ell)$ $(100\text{m}\ell)$ 2) Sampling time $1/2(50\text{m}\ell)$ $1/2(50\text{m}\ell)$ $1/2(50\text{m}\ell)$

3) Detectable limit : 10 ppm4) Shelf life : 3 years5) Operating temperature $: 0 \sim 40 \,^{\circ}\text{C}$

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

7) Colour change : White → Yellow

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with Mercuric chloride (II), Mercuric phosphorus chloride is produced.

 $PH_3 + HgCI_2 + H_2O \rightarrow Hg_3P_2 \cdot HgCI_2 \cdot H_2O$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Arsine	Brown stain is produced.	30	Higher readings are given.
Hydrogen selenide	"	50	"
Hydrogen sulphide	"	40	"

(NOTE)

In case of 1/2 pump strokes, following formula is available for the actual concentration.

Actual concentration = $2 \times \text{Reading value}$