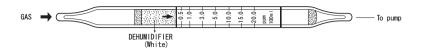
PHOSGENE



1. PERFORMANCE

3) Detectable limit : 0.05 ppm (500mL)

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

5) Operating temperature : $0 \sim 40$ °C

6) Temperature compensation: Necessary (See "TEMPERATURE CORRECTION TABLE")

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

8) Colour change : White→Red

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with Nitro-benzyl pyridine, urea derivative is produced. This urea derivative reacts with Benzyl aniline and dyestuff is produced.

0
$$_2$$
N $-$ CH $_2$ $-$ CH $_2$ NH $+$ COC $_1$ $_2$ $-$ DYESTUFF

4. CALIBRATION OF THE TUBE COLOURIMETRY METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence						
Nitrogen dioxide FIG.1	Yellow stain is produced.	100	Yellow stain is produced and						
FIG. 1			higher readings are given.						
Chlorine		5	A stained layer at the side of gas inlet is bleached out and higher readings are given.						
Hydrogen chloride		10	"						
Sulphur dioxide		0. 2%	"						

(NOTE)

When the concentration is below 0.5 ppm, 5 pump strokes can be used to determine the lower concentration. Following equation is available for the actual concentration. Actual concentration = $1/5 \times \text{Temperature}$ corrected value

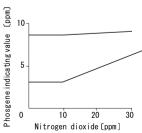


FIG. 1 Influence of Nitrogen dioxide

TEMPERATURE CORRECTION TABLE

Scale	True Concentration (ppm)								
Readings	0°C	10 °C	20 °C	30 °C	40 °C				
(ppm)	(32°F)	(50°F)	(68°F)	(86°F)	(104°F)				
20	13.5	17.0	20.0	21.8	23.0				
15	10.5	12.8	15.0	16.5	17.5				
10	7.0	8.6	10.0	11.0	11.8				
5	3.5	4.3	5.0	5. 5	5.8				
3	3.0	3.0	3.0	3.0	3.0				