

1. PERFORMANCE

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|-----------------------------|--|-------------|
| 1) Measuring range | : 0.5-20 ppm | 0.1-4.0 ppm |
| Number of pump strokes | 1 (100ml) | 5 (500ml) |
| 2) Sampling time | : 1 minute/1 pump stroke | |
| 3) Detectable limit | : 0.05 ppm (500ml) | |
| 4) Shelf life | : 1 year (Necessary to store in refrigerated conditions ; 0 ~ 10 °C) | |
| 5) Operating temperature | : 0 ~ 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.



4. CALIBRATION OF THE TUBE

ABSORPTIOMETRIC METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Nitrogen dioxide FIG.1	Yellow stain is produced.	100	Yellow stain is produced and 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 with following formula.

Actual concentration = $1/5 \times$ Temperature corrected value

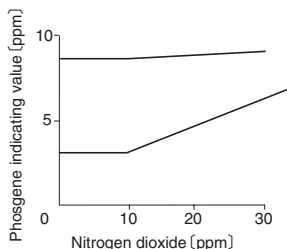


FIG.1 Influence of Nitrogen dioxide

TEMPERATURE CORRECTION TABLE

Tube Readings (ppm)	Corrected Concentration (ppm)				
	0 °C (32 °F)	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 °C (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