

1. PERFORMANCE

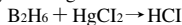
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|-----------------------------|--|--------------|--------------|
| 1) Measuring range | : 0.1-5 ppm | 0.05-2.5 ppm | 0.02-1.0 ppm |
| Number of pump strokes | 1 (100mℓ) | 2 (200mℓ) | 5 (500mℓ) |
| 2) Sampling time | : 1 minute / 1 pump stroke | | |
| 3) Detectable limit | : 0.01 ppm (500mℓ) | | |
| 4) Shelf life | : 2 years | | |
| 5) Operating temperature | : 0 ~ 40 °C | | |
| 6) Operating Humidity | : No corrections are necessary in case of 1 or 2 pump strokes.
In case of 5 pump strokes, the available humidity range is up to 25mg H ₂ O/ℓ [~ 30 °C (86 °F), 80 % R.H.]. | | |
| 7) Temperature compensation | : Necessary (See "TEMPERATURE CORRECTION TABLE") | | |
| 8) Reading | : Direct reading from the scale calibrated by 1 pump stroke | | |
| 9) Colour change | : Pale yellow → Reddish purple | | |

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with Mercuric cholride, Hydrogen chloride is liberated and PH indicator is discoloured.



4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence
Arsine FIG.2		Higher readings are given.
Phosphine FIG.1		∕
Hydrogen selenide		∕
Monosilane		∕ (Boundary is unclear.)
Disilane		∕ (∕)
Monogermane		Not affected.

(NOTE)

In case of 2 and 5 strokes, the following equation is available for the actual concentration.

2 pump strokes : Actual concentration = Temperature corrected value ÷ 2

5 pump strokes : Actual concentration = Temperature corrected value ÷ 5

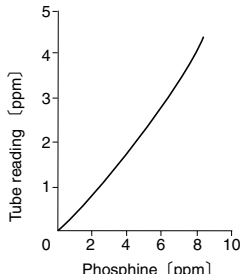


FIG.1 Influence of Phosphine

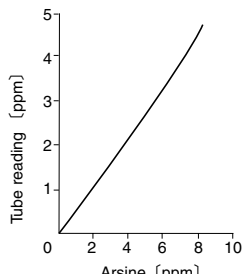


FIG.2 Influence of Arsine

TEMPERATURE CORRECTION TABLE

Scale 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)
5	—	9	5	3.5	2.5
4	—	7	4	3	2
3	—	5	3	2.5	1.5
2	8	3	2	1.5	1.3
1	1.5	1	1	1	0.8
0.5	0.5	0.5	0.5	0.5	0.5
0.1	0.1	0.1	0.1	0.1	0.1