



1. PERFORMANCE

- 1) Measuring range : 0.21-7.9 ppm 1-40 ppm 2.1-100 ppm
- Number of pump strokes : 4 (400mL) 1 (100mL) 1/2 (50mL)
- 2) Sampling time : 3 minutes/1 pump stroke
- 3) Detectable limit : 0.1 ppm(400mL)
- 4) Shelf life : 3 years
- 5) Operating temperature : 0~40°C (32-104°F)
- 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
- 7) Operating relative humidity : 0~90% R.H. for 1/2 and 1 pump strokes (0-40°C)
0~90% R.H. for 4 pump strokes (0-30°C)
0~50% R.H. for 4 pump strokes (30-40°C)
- 8) Reading : Direct reading from the scale calibrated by 1 pump stroke
- 9) Colour change : Pink → Pale yellow

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Potassium permanganate is reduced.

$(\text{CH}_3)_2\text{S} + \text{KMnO}_4 \rightarrow$ Pale yellow reaction products

4. CALIBRATION OF THE TUBE

DIFFUSION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Mercaptans		Similar stain is produced.	0.6	Higher readings are given.
Isobutane	0.8	Pale white stain is produced.		//
Propane			below 0.8	The accuracy of reading is not affected.
Hydrogen sulphide	40※	Similar stain is produced.	40※	Higher readings are given.

※An absolute humidity should be more than 3mg/L.

TEMPERATURE CORRECTION TABLE
(4 pump strokes)

Tube Readings (ppm)	Corrected Concentration (ppm)		
	0 °C (32 °F)	10 °C (50 °F)	20 to 40 °C (68 °F to 104 °F)
40	9.4	8.5	7.9
35	8.2	7.4	7.0
30	6.9	6.3	6.1
25	5.7	5.3	5.2
20	4.5	4.2	4.2
15	3.4	3.2	3.2
10	2.2	2.1	2.1
7	1.52	1.52	1.52
5	1.07	1.07	1.07
3	0.66	0.66	0.66
1	0.21	0.21	0.21

(1 pump stroke)

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)
40	61	49	40	38.5	37
35	52	42	35	33.5	32
30	43	35	30	29	28
25	34	28	25	24.5	24
20	26	22	20	19.8	19.5
15	18.5	16	15	14.9	14.8
10	11.8	10.5	10	10	10
7	7.7	7.1	7	7	7
5	5.3	5	5	5	5
3	3	3	3	3	3
1	1	1	1	1	1

(1/2 pump strokes)

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)
40	182	130	100	90	80
35	152	110	87	78	70
30	123	91	74	67	61
25	96	72	60	55	51
20	72	55	46	43	41
15	49	39	34	32	31
10	29	24	22	21	21
7	18.6	15.7	15.5	15.2	15
5	12.3	10.8	10.7	10.6	10.5
3	6.3	6.2	6	6	6
1	2.1	2.1	2.1	2.05	2