

1. PERFORMANCE

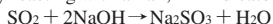
- 1) Measuring range : 0.5-20 ppm
(1 hr.) (8 hrs.)
1-20 ppm 0.5-6 ppm
- 2) Sampling time : 8 hrs. (6 mℓ/min.)
- 3) Shelf life : 3 years
- 4) Operating temperature : 10 ~ 30 °C
- 5) Reading : Direct reading from the scale calibrated by 8 hrs. Sampling
- 6) Colour change : Purple → Yellow

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with alkali, PH indicator is discoloured.



4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Carbon dioxide		1,000	Higher readings are given.
Nitrogen dioxide			The reagent colour fades, but the accuracy of the readings is not affected.

(NOTE)

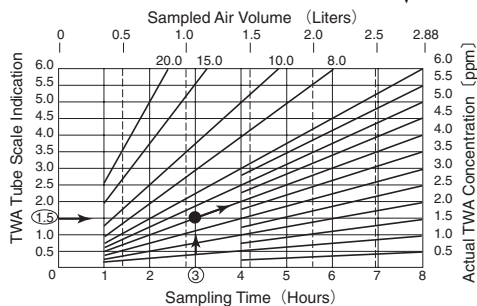
- 1) Air sampler is required for this tube.
- 2) Flow Rate and Sampling Time
 - (1) Read the scale printed on the tube at the top of Yellow stain.
 - (2) Correct the reading value by average relative humidity of sampling atmosphere with humidity correction table. (Table 1)
 - (3) In case of 8 hours, sampling with 6mℓ/min., the corrected value by Table 1 indicates actual TWA concentration.
 - (4) If the sampling duration is less than 8 hours, the actual TWA concentration can be obtained graphically from the chart provided below.
 - (5) If the flow rate is not 6mℓ/min, divide the corrected value by the ratio of sampled air volume to 2880mℓ.

$$\text{Actual TWA concentration (ppm)} = I \times \frac{2880}{V}$$

I = Corrected value by Table 1.

V = Sampled air volume in ml

[Flow rate (mℓ/min.) × Sampling duration (min.)]



Example :

- (a) If sampling time is 3 hours and corrected value by Table 1 is 1.5, the actual TWA concentration is 4.0 ppm.
- (b) If sampled air volume is 2.0ℓ and corrected value by Table 1 is 3.5, the actual TWA concentration is 5.0 ppm

Table 1 Humidity Correction Table

Scale (ppm) Readings	True Concentration(ppm)						
	20%	30%	40%	50%	60%	70%	80%
6.0	4.5	5.0	5.5	6.0	—	—	—
5.5	4.1	4.6	5.1	5.5	5.9	—	—
5.0	3.8	4.2	4.6	5.0	5.4	5.8	—
4.5	3.4	3.8	4.1	4.5	4.8	5.2	5.5
4.0	3.0	3.4	3.7	4.0	4.3	4.6	4.9
3.5	2.6	2.9	3.2	3.5	3.8	4.0	4.3
3.0	2.3	2.5	2.8	3.0	3.2	3.5	3.7
2.5	1.9	2.1	2.3	2.5	2.7	2.9	3.1
2.0	1.5	1.7	1.9	2.0	2.2	2.3	2.4
1.5	1.2	1.3	1.4	1.5	1.6	1.7	1.8
1.0	0.8	0.8	0.9	1.0	1.1	1.2	1.2
0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.6