

## 1. PERFORMANCE

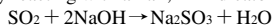
- 1) Measuring range : 0.5-20 ppm  
(1 hr.) (8 hrs.)  
1-20 ppm 0.5-6 ppm
- 2) Sampling time : 8 hrs. (6 mℓ/min.)
- 3) Shelf life : 3 years
- 4) Operating temperature : 10 ~ 30 °C
- 5) Reading : Direct reading from the scale calibrated by 8 hrs. Sampling
- 6) Colour change : Purple → Yellow

## 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	Original colour is faded.		

(NOTE)

- 1) Model PM-2 personal sampler (option) is available 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.  
 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

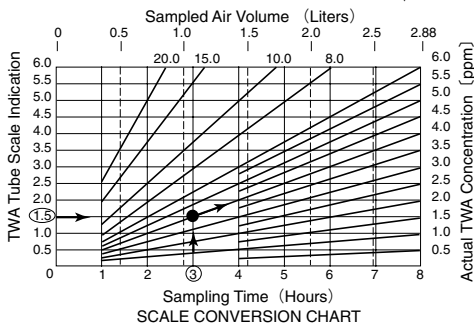


Table 1 Humidity Correction Table

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