

1. PERFORMANCE

- 1) Measuring range : 20-200 ppm
(1 hr.) (8 hrs.)
40-200 ppm 20-120 ppm
- 2) Sampling time : 8 hrs. (10 mℓ/min.)
- 3) Shelf life : 3 years
- 4) Operation temperature : 10 ~ 40 °C
- 5) Reading : Direct reading from the scale calibrated by 8 hrs. Sampling
- 6) Colour change : White → Brown

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Iodine pent-oxide is reduced.



4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Acetone	Similar stain is produced	Toluene conc. × 0.2	Higher readings are given.
Xylene	∕	Toluene conc. × 0.7	∕
Benzene	∕	Toluene conc. × 1.8	∕
Methyl ethyl ketone	∕	Toluene conc. × 0.2	∕
Hexane	Whole reagent is discoloured to Brown.	50	Whole reagent is discoloured and readings cannot be obtained.

(NOTE)

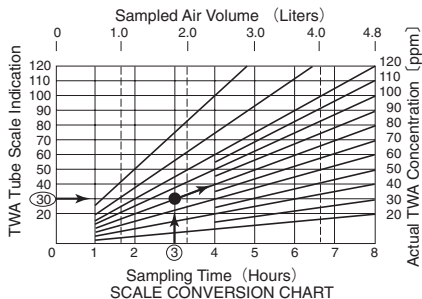
- 1) Air sampler is required for this tube.
- 2) Flow Rate and Sampling Time
 - (1) In case of 8 hours, sampling with 10mℓ/min., the TWA concentration can be read directly by the scale printed on the tube at the top of Brack stain.
 - (2) If the sampling duration is less than 8 hours, the actual TWA concentration can be obtained graphically from the chart provided below.
 - (3) If the flow rate is not 10mℓ/min, divide the scale reading by the ratio of sampled air volume to 4800mℓ.

$$\text{Actual TWA concentration (ppm)} = I \times \frac{4800}{V}$$

I = Scale reading in mℓ

V = Sampled air volume

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



Example :

- (a) If sampling time is 5 hours and scale reading is 50, the actual TWA concentration is 80 ppm.
- (b) If sampled air volume is 4.0ℓ, and scale reading is 50, the actual TWA concentration is 60 ppm.