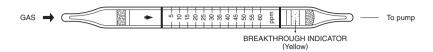
# TWA-CARBON MONOXIDE



## 1. PERFORMANCE

: 5-400 ppm 1) Measuring range

> (0.5 hr.)(4 hrs.) (8 hrs.) 50-400 ppm 5-100 ppm 5-60 ppm

2) Sampling time 8 hrs. (6 m l/min.)

3) Shelf life 3 years 4) Operating temperature 10 ~ 30 ℃

5) Reading Direct reading from the scale calibrated by 8 hrs. Sampling

: White→Brown ringed 6) Colour change

## 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

Iodine pentoxide is reduced.  $CO + I_2O_5 + H_2SO_4 \cdot nSO_3 \rightarrow I_2$ 

## 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Butane		50	Higher readings are given.
Hexane		50	"

#### (NOTE)

TWA Tube Scale Indication

- 1) Air sampler is required for this tube.
- 2) Flow Rate and Sampling Time
- (1) In case of 8 hours, sampling with 6 mℓ/min., the TWA concentration can read directly by the scale printed on the tube at the top of Brown ring.
- (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 6 mℓ/min, divide the scale reading by the ratio of sampled air volume to 2880mℓ. I = Scale reading

Actual TWA concentration (ppm) =  $I \times \underline{2880}$ 

Sampled Air Volume 0 0.5 1.0 2.0 2.5 2.88 (mdd) 60 55 50 50 Actual TWA Concentration 45 45 40 40 35 35 30 30 25 25 20 20 15 15 10 5

> Sampling Time (Hours) SCALE CONVERSION CHART

 $V = Sampled air volume in m \ell$ 

[Flow rate (m \( \ell / \text{min.} \) \times Sampling duration (min.) ]

#### Example:

- (a) If sampling time is 6 hours and scale reading is 30, the actual TWA concentration is 40 ppm.
- (b) If sampled air volume is  $1.5\ell$  and scale reading is 10, the actual TWA concentrationis 19.2 ppm.