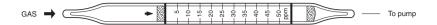
# TWA-AMMONIA



## 1. PERFORMANCE

1) Measuring range : 5-200 ppm

(1 hr.) (8 hrs.) 10-200 ppm 5-50 ppm

2) Sampling time : 8 hrs. (8 mℓ/min.)
3) Shelf life : 3 years

4) Operating temperature  $10 \sim 30 \, \text{C}$ 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 Phosphoric acid, PH indicator is discoloured.  $2NH_3 + H_3PO_4 \rightarrow (NH_4)_2HPO_4$ 

### 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Sulphur dioxide		20	Lower readings are given.

(NOTE)

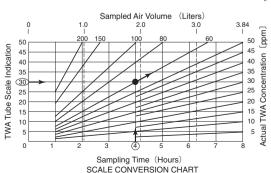
- 1) Air sampler is required for this tube.
- 2) Flow Rate and Sampling Time
- In case of 8 hours, sampling with 8mℓ/min., the TWA concentration can be read directly by the scale printed on the tube at the top of Yellow stain.
- (2) If the sampling duration is less than 8 hours, the actual TWA concentration can be obtained graphically from the chart provided below.
- (3) If the flow rate is not  $8m\ell/\min$ , divide the scale reading by the ratio of sampled air volume to  $3840m\ell$ .

Actual TWA concentration (ppm) =  $I \times \frac{3840}{V}$ 

I = Scale reading

V = Sampled air volume in ml

[Flow rate( $m\ell/min$ .)  $\times$  Sampling duration(min.)]



#### Example:

- (a) If sampling time is 4 hours at 8mℓ/min and scale reading is 30, the actual TWA concentration is 60 ppm.
- (b) If sampled air volume is 2.0 ℓ and scale reading is 5, the actual TWA concentrationis 9.6 ppm.