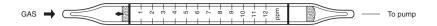
# TWA-HYDROGEN SULPHIDE



## 1. PERFORMANCE

: 1-20 ppm 1) Measuring range

> (1 hr.) (8 hrs.) 2-20 ppm 1-12 ppm

2) Sampling time : 8 hrs. (6 m \( \ell / \text{min.} \)

3) Shelf life 1 year 4) Operating temperature : 10 ~ 30 °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

By reacting with Lead acetate (II), Lead sulphide is produced.  $H_2S + Pb(CH_3CO_2)_2 \rightarrow PbS + 2CH_3CO_2H$ 

# 4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Sulphur dioxide		10	Higher readings are given.

#### (NOTE)

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

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

I = Scale reading

V = Sampled air volume in ml

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



# 12 11 10 **IVMA Tube Scale Indication** 9 Actual TWA Concentration 8 5

Sampling Time (Hours) SCALE CONVERSION CHART

# Example:

- (a) If sampling time is 2 hours at 6mℓ/min and scale reading is 2, the actual TWA concentration is 8 ppm.
- (b) If sampled air volume is  $2.5 \ell$  and scale reading is 6, the actual TWA concentrationis 7 ppm.