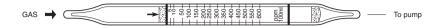
# **HYDROGEN SELENIDE**



## 1. PERFORMANCE

1) Measuring range Sumbler of pump strokes Sampling time S-600 ppm  $1 \cdot 120 \text{ ppm}$   $1 \cdot 120 \text{ ppm}$   $1 \cdot 100 \text{m} \ell)$   $5 \cdot (500 \text{m} \ell)$   $1 \cdot 1.5 \text{ minutes}/1 \text{ pump stroke}$ 

3) Detectable limit  $\begin{array}{c} \text{3.5 ppm} \left(500\text{m}\ell\right) \\ \text{4) Shelf life} \\ \text{5) Operating temperature} \\ \end{array}$ 

6) Reading : Direct reading from the scale calibrated by 1 pump stroke

7) Colour change : Pale yellow→Dark brown

# 2. RELATIVE STANDARD DEVIATION

RSD-low: 10% RSD-mid.: 10% RSD-high: 5%

#### 3. CHEMICAL REACTION

By reacting with Gold chloride, Colloidal gold is liberated. H2Se + AuCI₃→Au

# 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	Coexistence
Acetylene	3%	Higher readings are given.	Higher readings are given.
Carbon monoxide	0.1%	"	"
Sulphur dioxide		Pale blue stain is produced.	"
Hydrogen sulphide	10	Brown stain is produced.	"
Mercury vapours		Similar stain is produced.	"
Arsine	10	"	"
Iron carbonyl	10	"	"
Nickel carbonyl	10	"	"

#### (NOTE)

When the concentration is below 5 ppm, 5 pump strokes can be used to determine the lower concentration with the following formula.

Actual concentration =  $1/5 \times$  Reading value