NITROGEN OXIDES



1. PERFORMANCE

1) Measuring range 1.0-30 ppm 0.5-15 ppm Number of pump strokes $1/2(50m\ell)$ $1(100m\ell)$ 2) Sampling time $1/2(50m\ell)$ 1 minute/1 pump stroke $1/2(50m\ell)$ 2 and $1/2(50m\ell)$

3) Detectable limit $0.2 \text{ ppm} (100 \text{m} \ell)$ 4) Shelf life 3 years5) Operating temperature $0 \sim 40 \text{ }^{\circ}\text{C}$

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

7) Colour change : White→Pale purple

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

NO; By reacting with an Oxidizer, NO2 is produced.

 $NO + CrO_3 + H_2SO_4 \rightarrow NO_2$

NO₂ + 3, 3'-Dimethylnaphthidine → Nitroso-compound

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4. CALIBRATION OF THE TUBE

NO; STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Chlorine	Similar stain is produced.	1	Higher readings are given.
Hydrogen chloride	"	300	The accurecy of readings is not affected.
Sulphur dioxide	The accuracy of reading is not affected.	500	Lower readings are given.
Hydrogen sulphide	"	5	"
Ozone	"	Nox conc. \times 1/10	Higher readings are given.
Hexane	"	Nox conc. X10	"
Laughing gas	"		

(NOTE)

In case of 1/2 pump strokes, following formula is available for the actual concentration.

Actual concentration = $2 \times$ Reading value