OZONE



1. PERFORMANCE

1) Measuring range : 0.15-3.0 ppm 0.05-1.0 ppm 0.025-0.5 ppm Number of pump strokes 1 (100mℓ) 3 (300mℓ) 6 (600m l)

: 3 minutes/3 pump strokes 2) Sampling time

3) Detectable limit : $0.01 \text{ ppm} (600 \text{m} \ell)$

4) Shelf life 2 years : 0 ~ 40 ℃ 5) Operating temperature

6) Reading : Direct reading from the scale calibrated by 3 pump strokes

: Blue → White 7) Colour change

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Indigo is oxidized and Isatin is produced.

$$\begin{array}{cccc}
O & O & O & O \\
C & C & O & O & O \\
N & C & O & O & O & O
\end{array}$$

$$\begin{array}{ccccc}
O & O & O & O & O & O \\
O & O & O & O & O & O & O
\end{array}$$

$$\begin{array}{ccccc}
O & O & O & O & O & O & O & O & O \\
O & O & O & O & O & O & O & O
\end{array}$$

$$\begin{array}{ccccc}
O & O & O & O & O & O & O & O & O & O
\end{array}$$

$$\begin{array}{cccccc}
O & O & O & O & O & O & O & O & O
\end{array}$$

4. CALIBRATION OF THE TUBE

COLOURIMETRY METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Nitrogen dioxide FIG.1	Similar stain is produced.	0.5	The top of discoloured layer becomes unclear and higher readings are given.
Chlorine	"	10	
Oxidant	Similar stain is produced and this has same sensitivity with Ozone.		

(NOTE)

In case of 1 or 6 pump strokes, following formula is available for actual concentration.

Actual concentration = Reading value $\times \frac{1}{\text{Number of strokes}}$

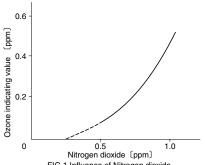


FIG.1 Influence of Nitrogen dioxide