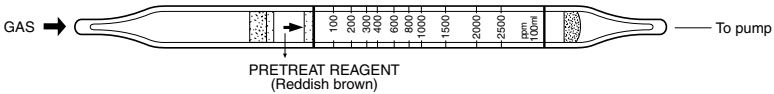
Tube No.
175SH

NITROGEN OXIDES



1. PERFORMANCE

1) Measuring range : 100-2,500 ppm
   Number of pump strokes 1(100mℓ)
2) Sampling time : 1 minute/1 pump stroke
3) Detectable limit : 10 ppm
4) Shelf life : 1 year
5) Operating temperature : 5 ~ 45 ℃
6) Reading : Direct reading from the scale calibrated by 1 pump stroke
7) Colour change : White → Green

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

NO ; By reacting with an Oxidizer, NO_2 is produced.

$NO + CrO_3 + H_2SO_4 \rightarrow NO_2$

$NO_2 + (C_6H_5)_2NH \rightarrow (C_6H_5)_2NNO$

NO_2 ; By reacting with Diphenylamine ,N- Nitroso-diphylamine is produced.

$NO_2 + (C_6H_5)_2NH \rightarrow (C_6H_5)_2NNO$

4. CALIBRATION OF THE TUBE

NO ; STANDARD GAS CYLINDER METHOD

NO_2 ; PERMEATION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Hydrogen chloride	The bottom of discoloured layer is changed to Dark blue.	500	Higher readings are given.
Sulphur dioxide			The accurecy of reading is not affected.

(NOTE)

When the concentration of Nitrogen oxides is high (over 2,000 ppm) in the measuring range, a green ring may occur in the discoloured layer or double-stained layer may occur. The total stain length should be read, even if the stained layer gets multi-colour discolouration.