GASTEC No.11A

Instructions for Nitrogen Oxides (NOx) Airtec Tube

FOR SAFE OPERATION :

Read this manual and the instruction manual carefully.

⚠CAUTION : If not observed, injuries to the operator or damage to the product may result.

1. When breaking the tube ends, keep away from eyes.
2. Do not touch the broken glass tubes, pieces and reagent with bare hand(s).

△NOTES : For maintaining performance and reliability of the test result

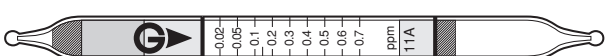
1. Use this tube within the temperature range of 0 - 40°C(32 - 104°F).
2. Shelf life and storage conditions of the tube are marked on the label of the box of tube.
3. Use this tube within 0 - 90% relative humidity.
4. This tube may be interfered by the coexisting gases. Please refer to the "INTERFERENCES".
5. Shelf life and storage condition of the tube is marked on the label of the box of tube.

APPLICATION OF THE TUBE :

Use of this tube for the detection of nitrogen oxides,simply connect the pressure reducer to your high pressure air source, compressor, cylinder, or air line and adjust the flow meter to the required setting.

SPECIFICATION :

(As a result of Gastec's commitment to continued improvement, specifications are subject to change without notice.)



Detecting Layer

Measuring Range	0.02 - 0.7 ppm	0.06 - 2 ppm
Sampling Time	5 min.	2 min.
Correction Factor	1	2.9
Sampling Rate	100 ml / min.	
Sampling Pressure	1.5 kgf / cm^2 (147 kPa)	
Color Change	White → Bluish Green	
Reaction Principle	Nitric oxide is oxidized to nitrogen dioxide to discolor the indicator (ABTS) to bluish green color.	

**** Shelf Life : Please refer to the Validity Date printed on the box of tube.**
**** Store the tubes in dark and cool place.**

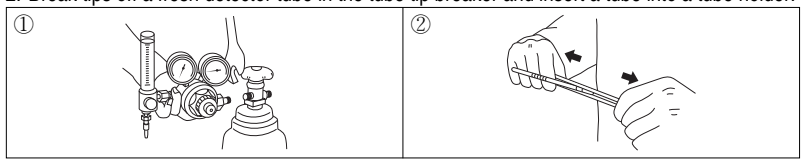
CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

Temperature : Temperature correction is not required for 0 - 40°C(32 - 104°F).
Humidity : Humidity correction is not required for relative humidity range of 0 - 90%.
Pressure : To correct for pressure, multiply the tube reading by

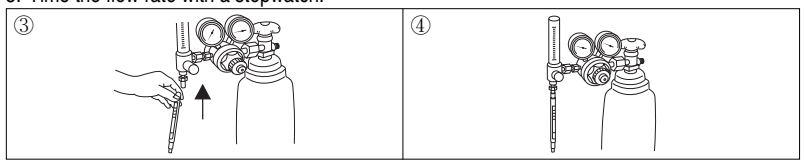
$$\frac{\text{Tube Reading (ppm)} \times 1013\ (\text{hPa})}{\text{Atmospheric Pressure (hPa)}}$$

MEASUREMENT PROCEDURE :

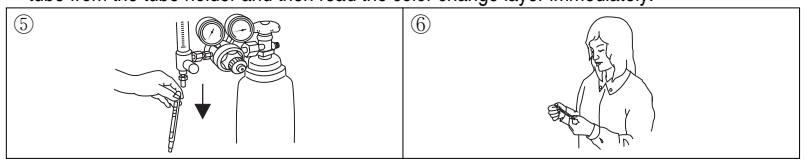
1. Install a reducer pressure with gauge and flow meter to a cylinder, compressor or air line and adjust the flow meter the required setting.
2. Break tips off a fresh detector tube in the tube tip breaker and insert a tube into a tube holder.



3. Attach the rubber tube holder to the flow meter outlet. Make certain the tube arrow ⊖► on the tube pointing in a down direction.
4. Turn on the cylinder or compressor and confirm to adjust the flow meter of secondary gauge at 1.5 kgf / cm^2 (147 kPa), flow rate at 100 ml/min.and sample for 5 minutes.
5. Time the flow rate with a stopwatch.



6. As soon as sampling time has elapsed turn off the cylinder or compressor, and remove the tube from the tube holder and then read the color change layer immediately.



7. If the discoloration exceeded the full scale, prepare fresh detector tube then set the time at 2 minutes and sample again. After sampling multiply the tube reading by 2.9 for true concentratoin.

INTERFERENCES :

Substance	Interference	Change color by itself
Chlorine	Plus error	Discolor bluish green

DISPOSAL INSTRUCTION :

Reagent of the tube does not uses toxic substance. On disposing the tube regardless of whether used or unused, follow the rules and regulations of the local government.

WARRANTY :

If you have any questions regarding gas detection and quality of the tubes, please feel free to contact your Gastec representatives.

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