

Performance

Name of Gas	Nitrogen Dioxide (NO ₂)	Nitric oxide (NO)			
Measuring Range	2.5 to 200 ppm	2.5 to 5 ppm	5 to 200 ppm		
Pump Strokes	1	2	1		
Correction Factor	1	1/2	1		
Sampling Time	1 minute per pump stroke				
Detecting Limit	0.5 ppm (n=1)	1 ppr	1 ppm (n=2)		
Colour Change	White → Yellowish orange				
Reaction Formula	NO ₂ tube: Nitrogen dioxide reacts with o-tolidine to produce yellowish orange stain. NO tube: Nitric oxide reacts with acid to produce acid gas				
	and acid gas react with o-tolidine to produce yellowish orange stain.				
Coefficient of Variation	NO_2 tube: 10% (for 2.5 to 20 ppm), 5% (for 20 to 200 ppm) NO tube:10% (for 5 to 20 ppm), 5% (for 20 to 200 ppm)				
Shelf Life	3 Years				
Corrections for temperature & humidity	NO ₂ tube: Unnecessary NO tube: Temperature correction is necessary				
Store the tubes at cool and dark place.					

Possible coexisting substances and their interferences

For the NO₂ tube (the NO tube will NOT be influenced by these substances.)

Substance	Concentration	Interference	Change colour by itself
Nitric Oxide	-	No effect	Produce red belt at demarcation
Hydrogen chloride	-	Unclear demarcation	No discoloration
Ozone, Halogens, Chlorine dioxide	≧1/5	20% Plus error	Produce yellowish orange stain
Sulphur dioxide	<u>≥</u> 50 ppm	Unclear demarcation	No discoloration

Calibration gas generation NO tube: Permeation tube method NO₂ tube: Permeation tube method

TLV-TWA	TLV-STEL	Explosive range
NO₂:3ppm NO:25ppm	NO ₂ :5ppm	-

Special Note

When used, connect the NO_2 and the NO tube (with both ends broken off). This twin tube can measure NO and NO_2 concentrations simultaneously.