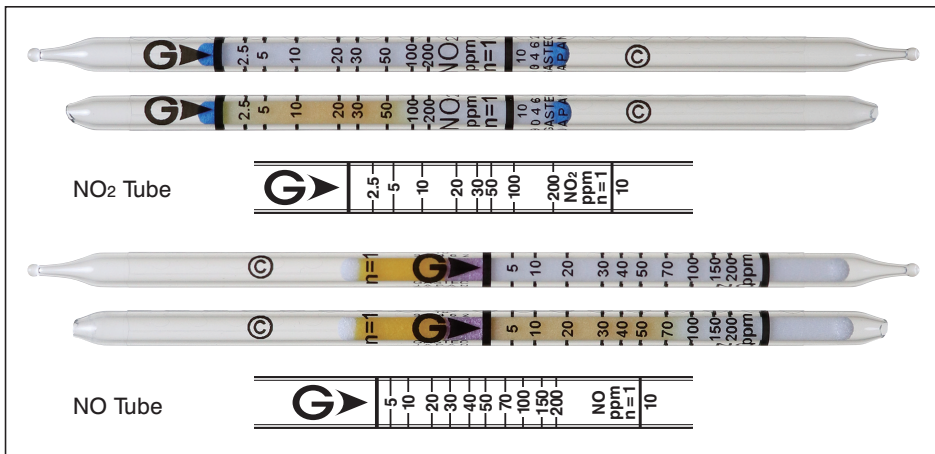


# Nitrogen Oxides (separate quantification) No.10



## Performance

When used, these tubes are to be connected.

Detector tube	NO tube		NO <sub>2</sub> tube
Measuring range	2.5 to 5 ppm	5 to 200 ppm	2.5 to 200 ppm
Number of pump strokes	2 (200 mL)	1 (100 mL)	1 (100 mL)
Correction factor	1/2	1	1
Sampling time	1.5 min	45 sec	45 sec

Detecting limit :	NO tube; NO tube; 1 ppm (2 pump strokes)	NO <sub>2</sub> tube; NO <sub>2</sub> tube; 0.5 ppm (1 pump stroke)
Colour change :	NO/NO <sub>2</sub> tubes; NO/NO <sub>2</sub> tubes; White → Yellowish orange	
Operating conditions :	NO tube; Temperature 0 to 40 °C (32 to 104 °F) correction used	NO tube; Relative humidity 0 to 90 % correction not used
	NO <sub>2</sub> tube; Temperature 0 to 40 °C (32 to 104 °F) correction not used	NO <sub>2</sub> tube; Relative humidity 0 to 90 % correction not used
Relative standard deviation :	NO tube; 10% (for 5 to 20 ppm), 5% (for 20 to 200 ppm)	NO <sub>2</sub> tube; 10% (for 2.5 to 20 ppm), 5% (for 20 to 200 ppm)
Tube quantity and number of tests per box :	10 tubes for 5 tests	
Shelf life :	36 months	

## Reaction principle

NO tube :  $\text{NO} + \text{Cr}^{6+} + \text{H}_2\text{SO}_4 \rightarrow \text{NO}_2$      $\text{NO}_2 + \text{o-Tolidine} \rightarrow \text{Nitroso-o-Tolidine}$   
 NO<sub>2</sub> tube :  $\text{NO}_2 + \text{o-Tolidine} \rightarrow \text{Nitroso-o-Tolidine}$

## Possible coexisting substances and their interferences

For the NO<sub>2</sub> tube only. The NO tube will not be influenced by these substances.

Substance	Concentration	Interference	Changes colour by itself to
Chlorine dioxide	≧ 1/5	} + 20%	} Yellowish orange
Halogen, Ozone	≧ 1/5		
Nitric oxide		No	Red (entrance of the detecting layer)
Hydrogen chloride		} Unclear demarcation	} No
Sulphur dioxide	≧ 50 ppm		

## Calibration gas generation

NO tube : Permeation tube method, NO<sub>2</sub> tube : Permeation tube method

## Special note

When used, connect the NO<sub>2</sub> tube and the NO tube (with their both ends broken off). This twin tube can measure NO and NO<sub>2</sub> concentrations simultaneously.