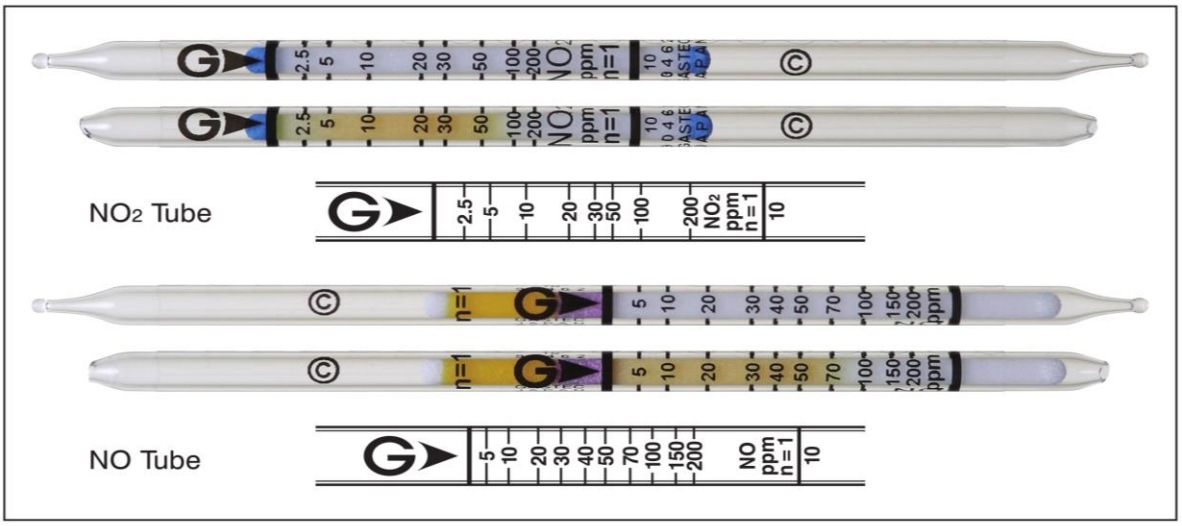
Nitrogen Oxides NO & NO2

Part No.: 10

Nitrogen Oxides NO & NO_2 (separate quantification) No.10



Performance

When used, these tubes are to be connected. See page 2-3.

Detector tube	NO tube		NO_2 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_2 tube; NO_2 tube; 0.5 ppm (1 pump stroke)
Colour change : NO/NO_2 tubes; NO/NO_2 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_2 tube; Temperature 0 to 40 °C (32 to 104 °F) correction not used
NO_2 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_2 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 : NO + Cr^{6+} + H_2SO_4 → NO_2 NO_2 + o-Tolidine → Nitroso-o-Tolidine
NO_2 tube : NO_2 + o-Tolidine → Nitroso-o-Tolidine

Possible coexisting substances and their interferences

For the NO_2 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_2 tube : Permeation tube method

Special note

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