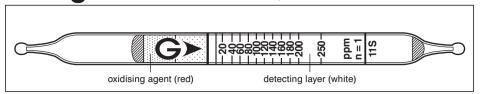
Nitrogen Oxides NO + NO₂ (total quantification)

No.11S



Performance The minimum scale value (10ppm) is not printed on the tube, but only the scale line is printed.

Measuring range	5 to 10 ppm	(10) to 250 ppm	250 to 625 ppm
Number of pump strokes	2 (200 ml)	1 (100 ml)	1/2(50 ml)
Correction factor	1/2	1	2.5
Sampling time	1.5 min	45 sec	30 sec

 $\begin{array}{lll} \mbox{Detecting limit:} & 2 \mbox{ ppm } (2 \mbox{ pump strokes}) \\ \mbox{Colour change:} & \mbox{White} \rightarrow \mbox{Pale green} \\ \end{array}$

Corrections for temperature & humidity: Unnecessary

Relative standard deviation: 10 % (for 10 to 80 ppm), 5 % (for 80 to 250 ppm)

Shelf life: 2 years

Reaction principle

 $NO + Cr^{6+} + H_2SO_4 \rightarrow NO_2$

 $NO_2 + (C_6H_5)_2NH \rightarrow C_6H_5NHC_6H_4NO$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Hydrogen chloride	≥ 50 ppm	Unclear demarcation	Bluish purple(≥ 10 ppm)
Hydrogen sulphide	≥ 1/1	+	No
Ozone	≥ 80 ppm	Unclear demarcation (Two layers)	Pale brown
Sulphur dioxide	≥ 1/1	+	No
Methanol	≥ 400 ppm	_	No

Nitric oxide is oxidized to form nitrogen dioxide. If organic solvent of high concentration is coexisting, oxidising agent is deteriorated to produce minus error for Nitric oxide concentration.

Calibration gas generation

Permeation tube method