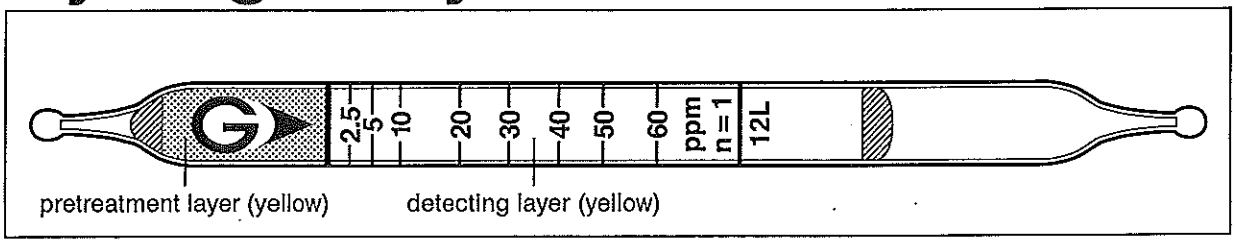
Hydrogen Cyanide HCN No.12L



Performance

Measuring range	0.36 to 1.25	1.25 to 2.5	2.5 to 60 ppm	60 to 120 ppm
Number of pump strokes	5 (500 ml)	2 (200 ml)	1 (100 ml)	1/2 (50 ml)
Correction factor	1/7	1/2	1	2
Sampling time	10 min	4 min	2 min	1 min

Detecting limit : 0.1 ppm (5 pump strokes)
Colour change : Yellow → Red
Corrections for temperature & humidity : Humidity correction is necessary.
Relative standard deviation : 10 %(for 2.5 to 20 ppm), 5 %(for 20 to 60 ppm)
Shelf life : 2 years

Reaction principle

$2HCN + HgCl_2 \rightarrow Hg(CN)_2 + 2HCl$
$HCl + Base \rightarrow Chloride$

Possible coexisting substances and their interferences (NOTE : Page 2-5)

Substance	Concentration	Interference	Changes colour by itself to
Hydrogen sulphide	≧ 5 ppm	+	Red
Sulphur dioxide	≧ 20 ppm	+	

Chlorine, hydrogen chloride, nitric acid are trapped in the pretreatment (yellow) layer. If the pretreatment reagent is entirely consumed, the whole pretreatment layer turns to reddish brown, providing a higher reading.

Other substances measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Acetone cyanohydrin	Factor : 1.15	1	2.88 to 69 ppm
Boron trichloride	by scale	2	0.5 to 20 ppm

Calibration gas generation

Permeation tube method

TLV-STEL : C 4.7 ppm Explosive range : 5.6 to 40 %