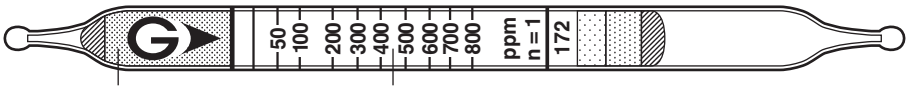
Ethylene CH_2:CH_2 No.172



pretreatment layer (white) detecting layer (pale yellow)

Performance The minimum scale value (25ppm) is not printed on the tube, but only the scale line is printed.

Measuring range	(25) to 800 ppm	800 to 1680 ppm
Number of pump strokes	1 (100 ml)	1/2 (50 ml)
Correction factor	1	2.1
Sampling time	3 min	1.5 min

Detecting limit : 5 ppm (1 pump stroke)
Colour change : Pale yellow → Blue
Corrections for temperature & humidity : Temperature correction is necessary.
Relative standard deviation : 10 %(for 25 to 200 ppm), 5 %(for 200 to 800 ppm)
Shelf life : 3 years

Reaction principle

CH_2:CH_2 + $(NH_4)_2MoO_4$ + $PdSO_4$ → Molybdenum blue

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Butane, Carbon monoxide	≧ 1/4	+	Blue (whole layer)
Hydrogen, Pentane		+	Blue (whole layer)
Butylene, Propylene		+	Blue
Ammonia, Butadiene		+	White
Hydrogen cyanide		+	White
Hydrogen chloride		+	Pink
Hydrogen sulphide		+	Black

Water vapour is trapped in the pretreatment (white) layer.

Other substance measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Acetylene	Factor : 1.3	1	32.5 to 1040 ppm

Calibration gas generation

High pressure gas cylinder method