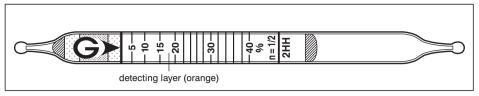
# Carbon Dioxide CO2

# No.2HH



# Performance

Measuring range	2.5 to 5 %	5 to 40 %
Number of pump strokes	1 (100 ml)	1/2(50 ml)
Correction factor	1/2	1
Sampling time	45 sec	45 sec

Detecting limit : 0.04 % (1 pump stroke)
Colour change : Orange → Yellow
Corrections for temperature & humidity : Unnecessary

Relative standard deviation: 10 % (for 5 to 10 %), 5 % (for 10 to 40 %)

Shelf life: 3 years

# Reaction principle

 $CO_2 + 2KOH \rightarrow K_2CO_3 + H_2O$ 

## Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Ammonia	≦ 8%	No	No
Hydrogen chloride	≦ 3%	No	White (≥ 4000 ppm)
Chlorine	≦ 1%	No	White (≥ 1000 ppm)
Hydrogen sulphide	≦ 1/15	No	Pale yellow (≥ 1200 ppm)
Sulphur dioxide	≦ 2%	No	Pale yellow (≥ 2400 ppm)
Nitrogen dioxide	≤ 1/5	No	Pale yellow (≥ 50 ppm)
Ethanol	≦ 7%	No	Pale yellow (≥ 2 %)
Acetic acid	≦ 2%	No	Pale yellow (≥ 4500 ppm)
Trimethylamine	≦ 10%	No	No
Carbon monoxide		No	No
Nitric oxide		No	No
Ethylene, Propane		No	No

## Calibration gas generation

High pressure gas cylinder method

## Special note

Up to 100 % of carbon dioxide concentrations can be measured by using a Gastec injection type detector tube (No.2HT) which is described.