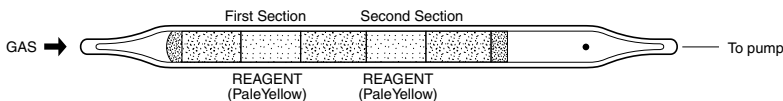


CARBON MONOXIDE



1. PERFORMANCE

- | | |
|-----------------------------|---|
| 1) Measuring range | : 10-1,000 ppm |
| | This tube is calibrated based on the sampling time not related with number of pump strokes. |
| 2) Sampling time | : 0.5-5.0 minutes |
| 3) Detectable limit | : 10 ppm (5.0 minutes) |
| 4) Shelf life | : 3 years |
| 5) Operating temperature | : 0 ~ 40 °C |
| 6) Temperature compensation | : Necessary (See "TEMPERATURE CORRECTION TABLE") |
| 7) Reading | : Colour intensity method using colour standard chart shown in below |
| 8) Colour change | : Pale yellow → Green to Blue |

2. RELATIVE STANDARD DEVIATION

RSD-low : RSD-mid. : RSD-high :

3. CHEMICAL REACTION

Molybdate is reduced and molybdeum blue is produced.
 $CO + PdSO_4 + (NH_4)MoO_4 \rightarrow Mo_3O_8$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Nitrogen dioxide		1	Lower readings are given.
Hydrogen sulphide	Black stain is produced.	1,000	Black stain is produced and higher readings are given.
Hydrogen (over 40 °C)	Similar stain is produced	10%	Whole reagent is discoloured to Blue and higher readings are given.

6. NOTE

- In case of determining CO concentration, it is necessary to take a waiting time related to the sampling time and ambient temperature. After the waiting time, compare the second section of reagent with the colour standard chart.
- In case of spontaneous combustion of coal mines, Ethylene and CO are produced. The first section is partially stained to deep blue from the top of the section according to Ethylene concentration. Whole areas of first and second sections are equally stained to greenish blue according to CO concentration. The first section is available to detect less than 5 ppm of Ethylene.

TEMPERATURE CORRECTION TABLE

Temperature	0°C (32°F)	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	25°C (77°F)	30°C (86°F)	35°C (96°F)	40°C (104°F)
Waiting time (minute)									
Sampling time up to 1 minutes	5	5	3	2	2	1	1	1	1
Sampling time of 2 minutes	7	7	4	3	3	2	2	1	1
Chart Readings (ppm)									
100	400	250	150	100	70	50	40	30	20
200	800	500	300	200	140	100	70	50	40
300	1,200	800	450	300	200	150	100	80	60
600	2,300	1,500	900	600	400	300	200	150	120
1,000	3,900	2,500	1,500	1,000	700	500	300	250	200

Color Standards for CARBON MONOXIDE

