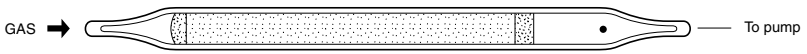
Tube No.
116

CHLORINE DIOXIDE



1. PERFORMANCE

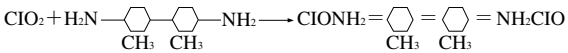
1) Measuring range : 1-20 ppm
   Number of pump strokes 1(100mℓ)
2) Sampling time : 2 minutes/1 pump stroke
3) Detectable limit : 0.3 ppm
4) Shelf life : 2 years
5) Operating temperature : 0 ~ 40℃
6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Concentration chart method
8) Colour change : White → Reddish orange

2. RELATIVE STANDARD DEVIATION

RSD-low : 10 % RSD-mid. : 5 % RSD-high : 5 %

3. CHEMICAL REACTION

0-Toluidine is oxidized and Orthoquinone is produced.



4. CALIBRATION OF THE TUBE

COLOURIMETRY METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	ppm	Coexistence
Nitrogen dioxide	FIG.1	Similar stain is produced.	1	Higher readings are given.
Chlorine	FIG.2	〃	1	〃
Bromine	FIG.3	〃	1	〃

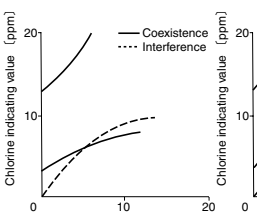


FIG.1 Influence of NItrogen dioxide

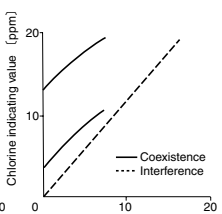


FIG.2 Influence of Chlorine

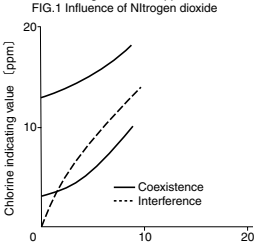


FIG.3 Influence of Bromine

TEMPERATURE CORRECTION TABLE

Chart Readings (ppm)	Correct Concentration (ppm)				
	0℃ (32°F)	10℃ (50°F)	20℃ (68°F)	30℃ (86°F)	40℃ (104°F)
20	—	30	20	15	12
15	—	22	15	11	10
10	26	15	10	8	7
5	13	8	5	4	3.5
3	6	5	3	2.8	2.5
1	1	1	1	1	1