AMMONIA



1. PERFORMANCE

1) Measuring range 0.5-30%Number of pump strokes $1(100 \text{m} \ell)$

2) Sampling time : 1 minute/1 pump stroke

3) Detectable limit \therefore 100 ppm 4) Shelf life \therefore 3 years 5) Operating temperature \therefore 0 \sim 40 $^{\circ}$ C

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 1 pump stroke

8) Colour change : Pink→Blue · Brownish green

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Ammonia reacts with Cobalt chloride (II) and complex salt is produced.

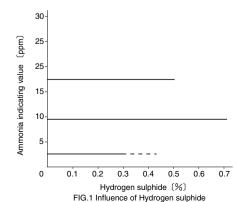
 $NH_3 + \alpha CoCI_2 + \beta H_2O \rightarrow CoCI_2 \cdot \alpha NH_3 \cdot \beta H_2O$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

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Substance	ppm	Interference	ppm	Coexistence							
Hydrogen sulphide FIG.1	0.01%	Whole layer is discoloured to Black.	0.3%	If the top of discoloured layer is possible to read, the accuracy of readings is not affected.							
Amines				The accuracy of readings is not affected.							



TEMPERATURE CORRECTION TABLE

Scale	True Concentration (%)						
Readings (%)	0°C (32°F)	10℃ (50°F)	20°C (68°F)	30°C (86°F)	40 ℃ (104° F)		
30	_	35.0	30.0	27.0	25.0		
25	35.0	30.0	25.0	23.0	21.0		
20	28.0	24.0	20.0	18.0	17.0		
15	22.0	18.0	15.0	13.0	12.0		
10	15.0	12.0	10.0	9.0	8.0		
5	8.0	6.0	5.0	4.5	4.0		
2	3.0	2.5	2.0	1.9	1.8		
1	1.2	1.2	1.0	1.0	0.9		
0.5	0.5	0.5	0.5	0.5	0.5		