Tube No.
105SH   AMMONIA

GAS ➡ [tube diagram: 0.5 1 2 5 10 15 20 25 30 % 100ml] — To pump

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1. PERFORMANCE

- 1) Measuring range : 0.5-30 %
  - Number of pump strokes   1（100mℓ）
- 2) Sampling time : 1 minute / 1 pump stroke
- 3) Detectable limit : 0.01 %
- 4) Shelf life : 3 years
- 5) Operating temperature : 0 ～ 40 ℃
- 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.

$NH_3 + \alpha CoCl_2 + \beta H_2O \rightarrow CoCl_2 \cdot \alpha NH_3 \cdot \beta H_2O$
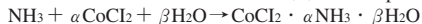
4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

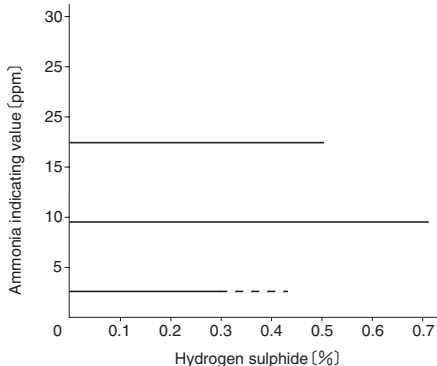| Substance	ppm	Interference	ppm	Coexistence
Hydrogen sulphide FIG.1	0.01%	Whole layer is discoloured to Black.	0.3％	If the maximum end point of the stain is discernable, the accuracy of readings is not affected.
Amines				The accuracy of readings is not affected.

FIG.1 Influence of Hydrogen sulphide

TEMPERATURE CORRECTION TABLE

Tube Readings (%)	Corrected Concentration (%)				
	0℃ (32˚F)	10℃ (50˚F)	20℃ (68˚F)	30℃ (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