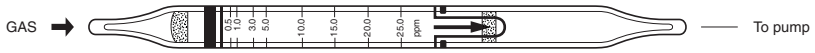
Tube No.
183U

PHENOL



1. PERFORMANCE

1) Measuring range : 0.5-25.0 ppm
   Number of pump strokes 2(200mℓ)
2) Sampling time : 3 minutes/2 pump strokes
3) Detectable limit : 0.3 ppm
4) Shelf life : 2 years
5) Operating temperature : 10～40℃
6) Temperature compensation : Necessary(See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 2 pump strokes
8) Colour change : Pale yellow→Pale light brown(Pale brown)

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Phenol is oxidized and the Polymer is produced.

$C_6H_5OH + Ce^{4+} \rightarrow C_6H_5O \cdot \rightarrow (C_6H_5O)_n$

4. CALIBRATION OF THE TUBE

ABSORPTIOMETRIC METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Other phenols FIG.1	Similar stain is produced.	2.5	Higher readings are given.
Ammonia FIG.2	White stain is produced.	200	Discolouration of gas inlet side is faded and higher readings are given.
Aliphatic amines	〃	50	〃
Aromatic amines	Blue stain is produced.	50	Two layers discolouration of Pale brown and Blue are produced and higher readings are given.

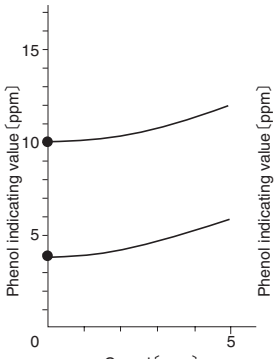


FIG.1 Influence of *o*-Cresol

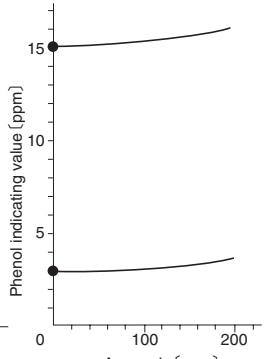


FIG.2 Influence of Ammonia

TEMPERATURE CORRECTION TABLE

Tube Readings (ppm)	Corrected Concentration (ppm)				
	0℃ (32°F)	10℃ (50°F)	20℃ (68°F)	30℃ (86°F)	40℃ (104°F)
25.0	31.2	27.8	25.0	21.8	18.8
20.0	24.5	22.3	20.0	17.5	15.0
15.0	18.4	16.7	15.0	13.1	11.3
10.0	12.3	11.1	10.0	8.8	7.5
5.0	6.1	5.6	5.0	4.4	3.8
3.0	3.7	3.3	3.0	2.6	2.3
1.0	1.2	1.1	1.0	0.9	0.8
0.5	0.5	0.5	0.5	0.5	0.5