FORMALDEHYDE



1. PERFORMANCE

4) Shelf life : 1 year (Necessary to store in refrigerated conditions; $0 \sim 10^{\circ}$ C)

5) Operating temperature : $10 \sim 40^{\circ}$ C

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")

7) Operating humidity : $5 \sim 90\%$ R.H.

8) Reading : Direct reading from the scale calibrated by 5 pump strokes

9) Colour change : Yellowish orange → Pink

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with Hydroxylamine phosphate, Phosphoric acid is liberated and pH indicator is discoloured. HCHO + (NH2OH)₃ · H₃PO₄ → H₃PO₄ + HCH = NOH + H₂O

4. CALIBRATION OF THE TUBE

DNPH-HPLC METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence	
Ammonia	_	The accuracy of readings is not affected.	10	Lower readings are given. Inlet side of the stain is faded.	
Nitrogen dioxide	3	Similar stain is produced.	3	Higher readings with indiscernable maximum end point of the stain are given.	
Acetaldehyde	_	"	_	Higher readings are given.	
Toluene	_	The accuracy of readings is not affected.	_	The accuracy of readings is not affected.	
Methanol	_	"	_	"	

(NOTE)

In case of 10 pump strokes, following formula is available for the actual concentration.

Actual concentration = $1/2 \times$ Temperature corrected value

TEMPERATURE CORRECTION TABLE

- ·	= 1								
_ Tube	Corrected Concentration (ppm)								
Readings	10°C	20°C	30°C	40°C					
(ppm)	(50°F)	(68°F)	(86°F)	(104°F)					
4.0	6.4	4.0	2.4	1.6					
3.5	5.6	3.5	2.1	1.4					
3.0	4.8	3.0	1.8	1.2					
2.5	4.0	2.5	1.5	1.0					
2.0	3.2	2.0	1.2	0.8					
1.5	2.4	1.5	0.9	0.6					
1.0	1.6	1.0	0.6	0.4					
0.5	0.8	0.5	0.3	0.2					
0.3	0.5	0.3	0.18	0.12					
0.1	0.16	0.1	0.06	0.04					