



1. PERFORMANCE

- | | | |
|------------------------------|---|-----------------------------------|
| 1) Target gas | Acetic acid | Formic acid |
| 2) Measuring range | : 10 ~ 400 $\mu\text{g}/\text{m}^3$ 25 ~ 1000 $\mu\text{g}/\text{m}^3$ | 20 ~ 800 $\mu\text{g}/\text{m}^3$ |
| 3) Sampling time | : 200mL/min x 60min 200mL/min x 30min | 200mL/min x 60min |
| 4) Detectable limit | : 5 $\mu\text{g}/\text{m}^3$ (60min sampling) | 10 $\mu\text{g}/\text{m}^3$ |
| 5) Shelf life | : 3 years | |
| 6) Operating temperature | : 5 ~ 35°C | |
| 7) Temperature compensation: | Necessary (See "Temperature correction table") | |
| 8) Operating humidity | : 20 ~ 80%R.H. | |
| 9) Reading | : Direct reading from the scale calibrated at the sampling of 200mLx60min | |
| 10) Colour change | : Pale pink → Pale yellow | |

* USE WITH AIR SAMPLER S-20 series.

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

PH indicator is discoloured by reacting with Alkali.

4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppb	Interference	Coexistence
Sulphur dioxide	10	Similar stain is produced.	Higher readings are given.
Nitrogen dioxide	60	Pale orange stain is produced.	The maximum end point of stained layer is indiscernible and higher readings are given.
Ammonia		The accuracy of readings is not affected.	The accuracy of readings is not affected.
Ozone		//	//
Formaldehyde		//	//
Acetaldehyde		//	//
Toluene		//	//
Xylene		//	//
Ethyl benzene		//	//
Ethyl acetate		//	//

TEMPERATURE CORRECTION TABLE FOR ACETIC ACID

Tube Readings ($\mu\text{g}/\text{m}^3$)	Corrected Concentration ($\mu\text{g}/\text{m}^3$)						
	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	25°C (77°F)	30°C (86°F)	35°C (95°F)
400	830	650	530	400	365	310	235
350	750	585	470	350	320	270	205
300	660	505	405	300	275	230	175
250	550	430	340	250	225	190	145
200	450	345	275	200	180	150	115
150	340	255	205	150	135	110	85
100	230	175	140	100	90	70	50
50	120	95	70	50	45	35	30
20	40	35	30	20	20	15	10
10	20	15	10	10	10	10	5

TEMPERATURE CORRECTION TABLE FOR FORMIC ACID

Tube Readings ($\mu\text{g}/\text{m}^3$)	Corrected Concentration ($\mu\text{g}/\text{m}^3$)						
	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	25°C (77°F)	30°C (86°F)	35°C (95°F)
400	475	445	425	400	375	340	300
350	415	395	370	350	335	300	265
300	355	335	320	300	280	260	230
250	300	285	265	250	235	220	195
200	250	235	215	200	190	175	160
150	195	180	165	150	145	135	120
100	140	125	110	100	95	90	85
50	80	70	60	50	50	45	43
20	35	30	25	20	20	20	18
10	20	15	10	10	10	10	8