# **DIESEL FUEL**



### 1. PERFORMANCE

1) Measuring range Number of pump strokes 2) Sampling time : 0.5-12.5 ppm 1.0-30 ppm 4 (400mL) 2 (200mL) : 1.5 minutes/1 pump stroke

3) Detectable limit : 0.3 ppm(400mL) 4) Shelf life : 2 years 5) Operating temperature : 0~40℃ (32-104°F)

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 2 pump strokes

8) Colour change : White → Pale brown with pale green top

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

lodine pentoxide is reduced.  $C_m H_n + I_2 O_5 + H_2 SO_4 \cdot nSO_3 \rightarrow I_2$ 

4. CALIBRATION OF THE TUBE GAS CHROMATOGRAPHY

### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Propane	Similar stain is produced.	500	Higher readings are given.
isobutane	<i>"</i>	20	//
n-Hexane	//	10	//
Octane	//	2	//
Gasoline	//	3	//
Carbon monoxide	//	5	//
Nitrogen dioxide	The accuracy of readings is not affected.	30	Lower readings are given.
Methane	<i>''</i>		The accuracy of readings is not affected.
Acetone	//		//
Alcohols	//		//
Isopropyl alcohol	//		//
Toluene	//		//
Xylene	//		//
Stylene	//		//
Hydrogen chloride	//		//
Sulphur dioxide	//		//
Hydrogen sulphide	//		//
Carbon dioxide	//		//
Benzene	<i>''</i>		//
Ammonia	//		//

## TEMPERATURE CORRECTION TABLE (4 pump strokes)

Tube	Corrected Concentration (ppm)				
Readings (ppm)	0 °C (32°F)	10℃ (50°F)	20 °C ~30°C) (68°F~86°F)	40 °C (104°F)	
30	11.0	12.0	12.5	14.0	
25	9.5	10.0	10.5	11.5	
20	7.5	8.0	8.5	9.5	
15	5.5	6.2	6.5	7.5	
10	4.0	4.3	4.5	5.0	
5	2.0	2.2	2.3	2.5	
3	1.2	1.3	1.3	1.3	
1	0.5	0.5	0.5	0.5	

#### (2 pump strokes)

Tube	Corrected Concentration (ppm)			
Readings	0°€	10℃	20 ℃ ~30℃)	40℃
(ppm)	(32°F)	(50°F)	(68°F~86°F)	(104°F)
30	24.0	27.0	30.0	31.5
25	20.0	22.5	25.0	26.5
20	16.0	18.0	20.0	21.0
15	12.0	13.5	15.0	16.0
10	8.0	9.0	10.0	10.5
5	4.0	4.5	5.0	5.5
3	2.5	2.7	3.0	3.0
1	1.0	1.0	1.0	1.0