Sulphur Dioxide SO_2 SSD-3

Specification :

	Extended	Standard	Extended
Measurement Range	2.5 – 5	5 - 100 ppm	100 - 200 ppm
No. of Pump Strokes	2 (200 ml)	1 (100 ml)	0.5 (50 ml)
Volume Correction Factor (VCF)*	0.5	1.0	2
Sampling Time	2.0 minute per pump stroke (100 ml)		
Color Change	Blue → Yellow		
Detection Limit	1 ppm (2 pump strokes)		
Shelf Life	3 years		
Relative standard deviation	± 10 – 15 %		

* Multiply the observed reading by the correction factor (VCF) to obtain the true concentration.

Reaction Principle :

$SO_2 + BaCl_2 + H_2O \rightarrow BaSO_3 + 2HCl$

$HCl + Base \rightarrow Chloride$

Possible Interferences :

Compound	Concentration (ppm)	Interference	Color Change / Comments
Hydrogen fluoride	≥ 50	+	Ring
Nitrogen oxide	≥ 100	+	Diffuse - violet color
Hydrogen sulphide	≤ 2000	No	No Effect
Carbon monoxide	≤ 3000	No	No effect
Ammonia	≤ 100	No	No effect

Correction For Environmental Parameters :

Temperature	Not necessary between 0 - 40˚C (32 - 104˚F).
Relative humidity	Not necessary between 10 - 90 %.

Calibration Of The Tube :

Static gas dilution method.

TLV (TWA): -------- TLV (STEL): 0.25 ppm Flammable Range: -----