

Specification:

	Extended	Standard	Extended	
Measurement Range (SO2)	12.5 - 25 ppm	25 - 500 ppm	Do not extend	
No. of Pump Strokes	2 (200 ml)	1 (100 ml)		
Volume Correction Factor (VCF)*	0.5	1.0		
Sampling Time	1.5 minutes per pump stroke (100 ml)			
Color Change	Yellow → Red			
Detection Limit	5 ppm (2 pump strokes)			
Shelf Life	1 year			
Relative standard deviation	± 10 – 15 %			

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

Reaction Principle:

R-SH + HgCl₂ → R-S.HgCl + HCl HCl + Base → Chloride

Possible Interferences:

Compound	Concentration (ppm)	Interference	Color Change / Comments
Other mercaptans		+	Pink
Phosphine		+	Pink
Arsine		+	Pink
Hydrogen cyanide		+	Pink
Hydrogen sulphide		+	Pink
Carbon dioxide	≤10%	No	No effect
Ammonia	≤100	No	No effect
Sulfur dioxide	≤30	No	No effect

Cross Sensitivity:

Compound	No. of strokes	Gas Correction Factor (GCF)*	Measuring range (ppm)	TLV (ppm)	Colour change
Methyl Mercaptan	1	1	25 - 500 ppm	0.5	Red
t-Butyl Mercaptan	1	1	25 - 500 ppm	0.5	Red

^{*} Multiply the observed reading by the correction factor (GCF) to obtain the true concentration

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):0.5 ppm TLV (STEL): ---- Flammable Range: 3-18 %