

**Performance**

<b>Measuring Range</b>	0.05 to 0.1%	0.1 to 2.0%	2.0 to 4.0%
<b>Number of Pump Strokes</b>	2	1	1/2
<b>Correction Factor</b>	1/2	1	2
<b>Sampling Time</b>	2 minutes per pump stroke		
<b>Detecting Limit</b>	0.02 % (n=2)		
<b>Colour Change</b>	White → Brown		
<b>Reaction Principle</b>	Acetylene reduces iodine pentoxide to liberate iodine, which produces a brown in colour. $\text{HC} : \text{CH} + \text{I}_2\text{O}_5 + \text{H}_2\text{S}_2\text{O}_7 \longrightarrow \text{I}_2$		
<b>Coefficient of Variation</b>	15% (for 0.1 to 0.5 %), 10% (for 0.5 to 2 %)		
<b>Shelf Life</b>	3 Years		
<b>Corrections for temperature &amp; humidity</b>	Temperature correction is necessary		
<b>Store the tubes in the cool and dark place.</b>			

**Possible coexisting substances and their interferences**

Substance	Concentration	Interference	Change colour by itself
Carbon monoxide	≥0.1%	Plus error	Produce dark brown stain
Ethylene	≥0.5%	Plus error	Produce dark brown stain
Hydrocarbons (≥C <sub>3</sub> )	-	Plus error	Produce dark brown stain

**Other substance measurable with this detector tube**

Substance	Correction Factor	Pump Strokes	Measuring Range
Benzene	0.3	4	0.03 to 0.6%
Ethylene	1.0	1	0.1 to 2%
1,1,1-Trichloroethane	0.6	1	0.06 to 1.2%

**Calibration gas generation** High pressure gas cylinder method

TLV-TWA	TLV-STEL	Explosive range
-	-	2.5 to 81%