

Application Data

Application Range	Determination of phosphine in air	
Measuring Range	0.5 to 3 ppm	0.1 to 1.0 ppm
Number of Strokes	1	3
Measuring Time	approx. 1 min	approx. 2.5 min
Standard Deviation	± 10 to 15 %	
Color Change	yellow -----> red	

Ambient Conditions

Temperature	Humidity	Air Pressure
2 °C to 40 °C (35.6 to 104 ° F)	< 40 mg/L	$F = \frac{1013 \text{ hPa}}{\text{Actual atmospheric Pressure hPa}}$

Principle of Reaction

HgCl ₂ + PH ₃ -----> Hg-Phosphide + HCl
HCl + pH-Indicator -----> red reaction product

Cross Sensitivity

A maximum of 6 ppm sulfur dioxide or 15 ppm hydrogen chloride have no influence on the reading. Higher concentrations result in plus errors.
Ammonia (>100 ppm) result in minus errors.
Hydrogen sulfide and Arsine are indicated with different sensibility.
30 ppm hydrocyanic acid has no influence on the reading.