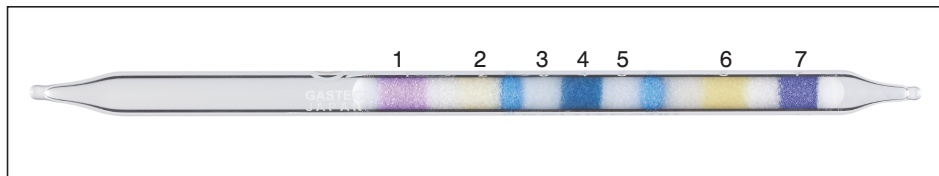


Polytec IV

No.27



Performance

Number of pump strokes	n = 1
Sampling time	30 seconds per 1 pump stroke (100mL)
Operating conditions :	Temperature 0 to 40 °C (32 to 104 °F) correction not used Relative humidity 0 to 90 % correction not used
Tube quantity and number of tests per box :	10 tubes for 10 tests
Shelf life :	18 months

Reaction principle

See the table below

Detecting layer {	No. Name (Original colour)	1	2	3	4	5	6	7
		NH ₃ (Purple)	HCl (Yellow)	H ₂ S (White)	SO ₂ (Blue)	NO ₂ (White)	CO (Yellow)	CO ₂ (Blue)
Reaction principle		3NH ₃ + H ₃ PO ₄ → (NH ₄) ₃ PO ₄	HCl + Base → Chloride	H ₂ S + CuSO ₄ → CuS	SO ₂ + BaCl ₂ + H ₂ O → 2HCl HCl + Base → Chloride	NO ₂ + C ₁₄ H ₁₆ N ₂ → C ₁₄ H ₁₄ N ₂ O	CO + Na ₂ Pd(SO ₃) ₂ → Pd	CO ₂ + 2KOH → K ₂ CO ₃
Substances & expected concentration	Ammonia, Diethylamine (≧ 25 ppm) (≧ 150 ppm)	Yellow (Inlet) Yellow (Whole layer)						
	Hydrogen chloride (≧ 5 ppm) (≧ 150 ppm) (*)		Red (Inlet) Red (Whole layer)					
	Hydrogen sulphide (≧ 10 ppm) (≧ 120 ppm) (≧ 200 ppm) (≧ 800 ppm)			Brown (Inlet) Brown (Whole layer)			— — Blackish brown (Inlet) Blackish brown (Whole layer)	
	Chlorine (≧ 5 ppm) (≧ 20 ppm) (≧ 50 ppm)				Yellow (Inlet) Yellow (Whole layer)	Yellow (Inlet) Yellow (Whole layer)		
	Sulphur dioxide (≧ 10 ppm) (≧ 50 ppm)				Yellow (Inlet) Yellow (Whole layer)			
	Nitrogen dioxide (≧ 5 ppm) (≧ 30 ppm)				Purple (Whole layer)	Yellowish orange (Inlet) Yellowish orange (Whole layer)		
	Acetylene (≧ 200 ppm) (≧ 2,000 ppm)						Blackish brown (Inlet) Blackish brown (Whole layer)	
	Carbon monoxide (≧ 25 ppm) (≧ 100 ppm)						Blackish brown (Inlet) Blackish brown (Whole layer)	
	Ethylene (≧ 10,000 ppm)						Blackish brown (Inlet)	
	Phosphine (≧ 50 ppm) (≧ 700 ppm)						Blackish brown (Inlet) Blackish brown (Whole layer)	
	Hydrogen (≧ 50,000 ppm) (≧ 100,000 ppm)						Gray (Whole layer) Blackish brown (Whole layer)	
	Methyl mercaptan (≧ 200 ppm) (≧ 1,000 ppm)						Yellowish orange (Inlet) Yellowish orange (Whole layer)	
	Propylene (≧ 10,000 ppm) (≧ 50,000 ppm)						Gray (Inlet) Gray (Whole layer)	
Carbon dioxide (≧ 5,000 ppm) (≧ 20,000 ppm)							Brown (Inlet) Brown (Whole layer)	

Parenthesized values after substances show their concentrations.

(*) At relative humidity of 50 %. The detecting limit is lowered at a lower humidity or increased at a higher humidity.