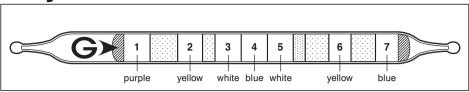
## Polytec IV

No.27



## Performance

Number of pump strokes	n=1				
Sampling time	30 seconds per 1pump stroke (100mL)				
Shelf life	1.5 years				

## Reaction principle

See the table below

Detecting layer $\left\{ \right.$	No. Name (Original colour)		1 NH <sub>3</sub> (Purple)	2 HCI (Yellow)	3 H <sub>2</sub> S (White)	4 SO <sub>2</sub> (Blue)	5 NO <sub>2</sub> (White)	6 CO (Yellow)	7 CO <sub>2</sub> (Blue)
Reaction principle		3NH3+H3PO4 →(NH4)3PO4	HCI+Base → Chloride	H <sub>2</sub> S+CuSO <sub>4</sub> → CuS	SO2+BaCl2+H2O → 2HCl HCl+Base → Chloride	NO2+C14H16N2 → C14H14N2O	CO+Na <sub>2</sub> Pd(SO <sub>3</sub> ) <sub>2</sub> → Pd	CO2+2KOH → K2CO3	
Substances & expected concentration	Ammonia, Diethylamini	e (≥ 25 ppm) (≥150 ppm)	Yellow(Inlet) Yellow(Whole layer)						
	Hydrogen chloride	e (≥ 5 ppm) (≥150 ppm) (*)		Red (Inlet) Red (Whole layer)					
	Hydrogen sulphid	(≥ 10 ppm) e(≥120 ppm) (≥200 ppm) (≥800 ppm)			Brown (Inlet)  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)						Dark brown (Inlet) Dark brown (Whole layer)	
	Carbon monoxide	(≥ 25 ppm) (≥100 ppm)						Dark brown (Inlet) Dark brown (Whole layer)	
	Ethylene	(≥ 10,000 ppm)						Dark brown (Inlet)	
	Phosphine	(≥ 50 ppm) (≥700 ppm)						Dark brown (Inlet) Dark brown (Whole layer)	
	Hydrogen	(≥ 50,000 ppm) (≥100,000 ppm)						Gray (Whole layer) Dark 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)