



FORMALDEHYDE GAS DETECTOR

Model FP-31

The FP-31 is a highly sensitive portable gas detector specific for formaldehyde detection. It uses a photoelectric photometry method which utilizes colorimetric tablets for detection. A tablet is placed into the instrument, and then a room air sample is pumped onto the tablet for either a 15 minute or a 30 minute period. If formaldehyde is present, it will cause the chemically impregnated tablet surface to darken or stain. The magnitude of the stain directly correlates to the level of formaldehyde in the air. The stain darkness is read by an optical sensor in the FP-31, and then the instrument calculates the formaldehyde concentration. The FP-31 then has a direct readout of the formaldehyde measurement on an easy to read LCD display. The unit is capable of detecting very low levels of formaldehyde, in order to confirm if an area contains safe breathing levels. There are no known interfering gases, as shown on the chart on the reverse side of this sheet.

Features

- Simple operation
- Built-in sample draw pump
- Easy to read LCD display
- Self-diagnosis
- Uses photoelectric photometry technology
- Direct digital readout
- Colorimetric detection tablet method
- No false readings from interfering gases
- Operates on 4 AA alkalines
- Stores 99 readings
- No warm up time

Applications

- Furniture and woodworking
- Coating and varnishing
- Engineered wood products
- Medical / veterinary
- Painting & corrosion resistant finishes
- Carpet manufacture & storage
- Adhesives
- Heat treatment operations
- RV/Trailer/mobil home inspecting



Model FP-31		
Detection gas	Formaldehyde (HCHO) in air	
Detection range	0-0.4 ppm (0.005ppm/digit)	0-1.0 ppm (0.01 ppm/digit)
Detection time	30 minutes (1,800 sec.)	15 minutes (900 sec.)
Detection principle	Photoelectric photometry method	
Detection method	Colorimetric tablet method (accumulating measurement)	
Accuracy	± 10% of reading or ± 5% of full scale (which ever is greater)	
Display	Digital LCD	
Sampling method	Sample drawing with built-in pump	
Operating conditions	-10 ~ 40°C (14 ~ 104°F), below 90%RH	
Memory	Up to 99 readings (automatic recording at the completion of measurement)	
Self-diagnosis	Failure of light source and light receiver, low battery voltage, pump failure, system trouble	
Power Source	AA size Alkaline batteries (quantity 4)	
Continuous Operation	Approximately 12 hours (with no alarm or backlight, with alkaline batteries at 20°C)	
Dimension Approx	85(W) x 190(H) x 40(D)mm, 3.35(W) x 7.48(H) x 1.57(W),	
Weight	500g, 17.6 oz	
Standard Accessories	• Detection TAB (20 pcs/pack) ** • Carrying case • AA size alkaline batteries • Operating manual	
Optional Accessories	Zero and span tab, datalogging software, USB-IRdA cable (for downloading stored data)	
Warranty	One year material and workmanship	

Interference against other gases (typical)		
Test Gas	Concentration	Reading
Toluene	1.0 vol.%	0 ppm
Benzene	1.0 vol.%	0 ppm
Acetoaldehyde	100 ppm	0 ppm
Carbon monoxide	50 ppm	0 ppm
Carbon dioxide	1.0 vol.%	0 ppm
Ammonia	25 ppm	0 ppm
Acetone	1.0 vol.%	0 ppm

Field Test Verification Data		
Measurement Place	FP-31	DNPH method*
Interior	0.020 ppm	0.025 ppm
Locker	0.030 ppm	0.03 ppm
Furniture	0.040 ppm	0.05 ppm

* Dinitrophenylhydrazine detection method
 ** Please note: Detection tabs have a 6 month shelf life.
 They must be stored in a refrigerator (37 °F-50 °F, 3-10 °C)

Note: Specifications subject to change without notice.

