

# RIKEN

C2E-0330

## ppb detection available

# HIGHLY SENSITIVE TOXIC GAS MONITOR

## MODEL FP-270 series

### Cassette tape system



### Features

1. Interference-free detection (PPB or PPM digital display)
2. Detection of low gas concentrations (TLV level)
3. Easy to replace cassette tape (cassette remainder display included)
4. Provision for connection to personal computer (RS-232C interface:Optional)
5. Easy to check the detection function and alarm operation
6. Desk top size promotes easy transportability
7. Ideal for detection of C5F8, C4F6, THF (C4H8O) with built-in special pyrolyzer.



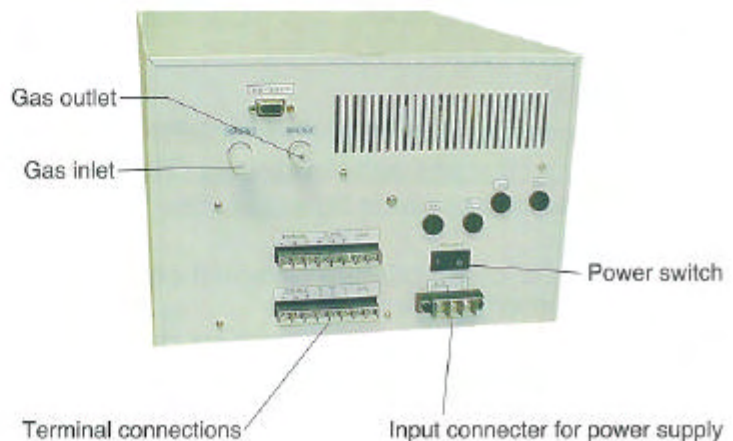
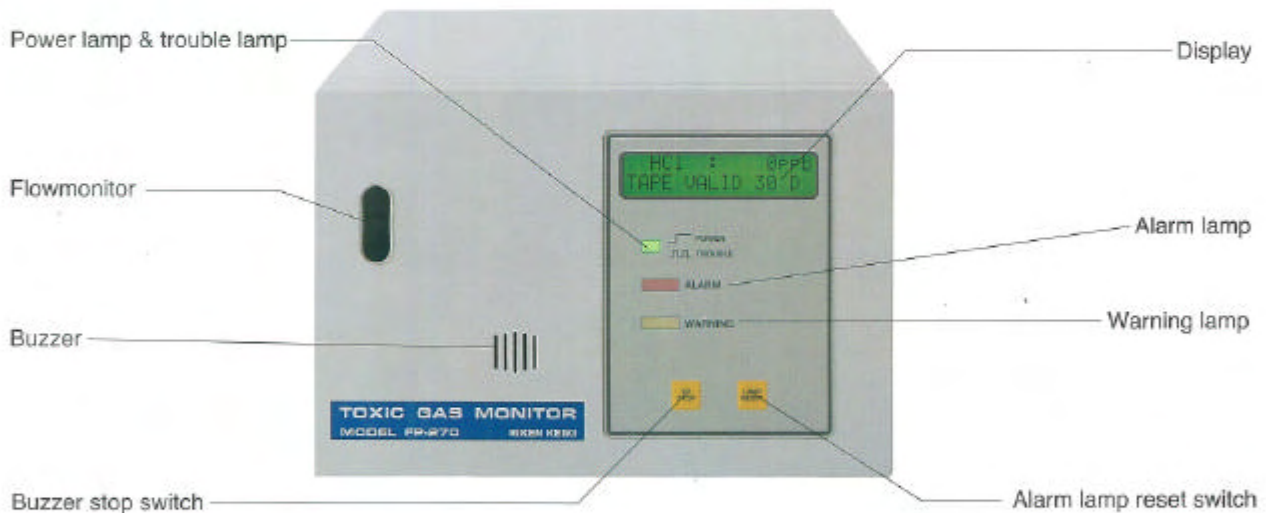
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## Description

The model FP-270 series are highly sensitive toxic gas monitors using a gas detection cassette tape which is almost free of interference from other gases. As the detection tape responds by a chemical reaction with the gas being measured, there is no interference from hydrogen or organic gases. Its best application then is in monitoring of the target gas at the outlet of an absorption scrubber, as well as in monitoring of the work environment for personnel safety.

Octafluorocyclopentene ( $C_5F_8$ ) and Perfluorobutadiene ( $C_4F_6$ ) can be detected with built in special pyrolyzer.

## Part Designation

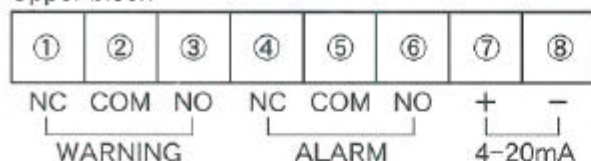




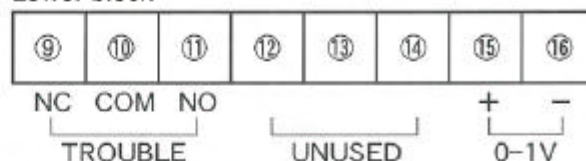
# MODEL **FP-270** series

## Terminal connections

Upper block



Lower block



## Specifications

Model name	FP-270	FP-270AGZ	FP-270AGZS
Detection principle	Photoelectric photometry method	Special pyrolyzer + photoelectric photometry method	
Detection tape	Cassette tape style		
Measuring gas and range	Refer to "Detectable gases and detection range table"		
Sample flowrate	Approx 1.5L/min	Approx 1.0L/min	
Operating time for cassette tape	1 month (under gas free condition), with tape remainder display and caution display for tape end.		
Alarm operation	Alarm value	Depending upon the measuring gas	
	Indication	Lamp (Warning : Yellow, Alarm : Red) and buzzer	
	Output	Latching alarm contact Non-energized contact Non-voltage C contact, 125VAC, 0.5A : Load resistance	
	Alarm accuracy	Within $\pm 20\%$ of alarm setting value at constant condition	Within $\pm 30\% + 1$ digit of alarm setting value at constant condition
Initial clear	Approx. 25 seconds after turning on the power		
Self-diagnosis	Contents	*Sensor failure, *Flow failure, *Tape cut, *System trouble, *Tape cassette replacement, *Lever set failure	
	Display	*LCD message, *Lamp, *Buzzer	
	Output	* Non-latching contact * Non-energized contact * Non-voltage C contact, 125VAC, 0.5A : Load resistance	
Output signal	*4-20mA : Not isolated, Max. load resistance : 300 $\Omega$ 0-1V : Not isolated, *RS-232C interface (option)		
Operating temperature & humidity	5~35°C 30~90%RH (Non-condensing)	10~35°C 30~60%RH (Non-condensing)	
Gas inlet	Outer diameter : 6mm $\phi$ , with fitting		
Power source	100VAC, 50/60Hz (40VA)	100VAC, 50/60Hz (80VA)	
Outer dimensions	Approx. 300 (W) X 200 (H) X 370 (D) mm		
Weight	Approx 12kg	Approx 13.5kg	
Standard accessories	Gas detection cassette tape, Check sheet, Dust filter, Fuse		

Specifications subject to change without notice

## Detectable gases and detection range

### FP-270

Detection gas/Chemical formula	TLV value	Range	Alarm	Cassette tape
Ammonia (NH <sub>3</sub> )	25ppm	0-1.000ppm	0.300ppm	FT-009
		0-6.0ppm	2.0ppm	FT-010
Hydrogen chloride (HCl)	5ppm	0-1000ppb	350ppb	FT-004
		0-5.0ppm	2.0ppm	FT-005
Hydrogen fluoride (HF)	3ppm	0-9.0ppm	3.0ppm	FT-006
		0-1000ppb	350ppb	FT-006
Acetic acid (CH <sub>3</sub> COOH)	10ppm	0-10.00ppm	3.50ppb	FT-006
Hydrogen bromide (HBr)	3ppm	0-3.00ppm	1.00ppm	FT-005
Chlorine tri-fluoride (ClF <sub>3</sub> )	100ppb	0-500ppb	100ppb	FT-006
Hydrazine (N <sub>2</sub> H <sub>4</sub> )	100ppb	0-400ppb	200ppb	FT-010
TMA (C <sub>3</sub> H <sub>9</sub> N)	—	0-200ppb	100ppb	FT-009
		0-300ppb	150ppb	FT-009

### FP-270AGZ

Detection gas/Chemical formula	TLV value	Range	Alarm	Cassette tape
Tetrahydrofuran (THF)	200ppm	0-50ppm	50ppm	FT-006

### FP-270AGZS

Detection gas/Chemical formula	TLV value	Range	Alarm	Cassette tape
Octafluorocyclopentene (C <sub>5</sub> F <sub>8</sub> )	—	0-5.0ppm	4.0ppm	FT-017
Perfluorobutadiene (C <sub>4</sub> F <sub>6</sub> )	—	0-5.0ppm	4.0ppm	FT-017



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