

**RIKEN**

Environmental gas monitor for semiconductor fabs  
and other work environments for personal safety.

# HIGHLY SENSITIVE TOXIC GAS MONITOR

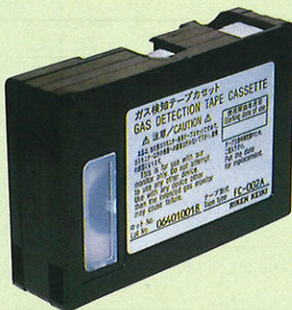
## Model FP-300/FP-301

**The World  
Smallest!**

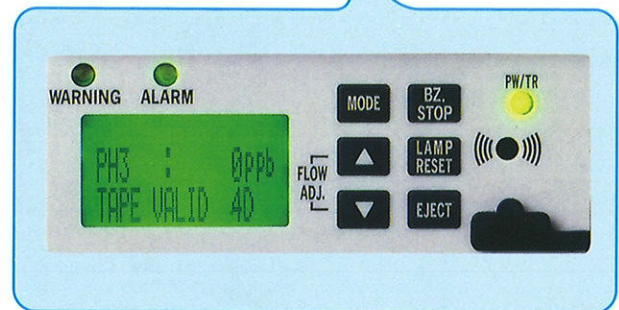
Photoelectric photometry method  
with a gas detection cassette tape



(Desk top type)



Micro cassette  
Size. 9.9cm(W) × 2.5cm(H) × 6.7cm(D)



## Features

- PPB detection for many gases
- PPB or PPM digital display
- Easily transportable
- Panel mounting configuration available
- Cassette tape remainder display included
- Self- diagnostic functions
- Two alarm levels
- Interference - free detection
- Ideal for detecting new ACGIH's TLV level for Arsine

## Applications

- Detecting of uncaptured gas from scrubber.
- Environmental monitoring for semiconductor fabs.



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**RIKEN KEIKI**

# Model FP-300/FP-301

## Specifications

Model	FP-300	FP-301
Detection principle	Photoelectric photometry method	
Detection tape	Plug-in micro cassette	
Target gas and detection range	See detection gas and range	Arsine : 0~15ppb Hydrogen Selenium : 0~200ppb
Sampling method	Internal sample drawing pump	
Gas concentration display	Digital display by LCD	
Alarm preset levels	See detection gas and range	
Alarm display	Gas alarm : Yellow WARNING light, Red ALARM light and buzzer sound Trouble alarm : Flashing green light	
Alarm relays	Common contact for each WARNING, ALARM and trouble, latched mode, rated 0.5A at 125VAC (Resistive load)	
Self-diagnostic function	Sensor failure, low flow, tape cut, tape end notice, tape end, tape set failure, system trouble	
Analog output	4~20mADC, non-isolated, max loop load 300Ω	
Operating conditions	5~35°C, 30~90%RH (Non-condensing)	
Power requirement	100VAC~220VAC±10%, 50/60Hz (Desk top type) 24VDC±10% (Panel mounting type) Please specify the mounting type and power supply when ordering	
Dimensions & weight (Approx)	164(W)×198(H)×263(D)mm, 6.5kg (Desk top) 164(W)×164(H)×261(D)mm, 5.5kg (Panel mounting)	

• Specifications subject to change without notice.

## Detection gas and range

Target gas	TLV (※2)	Detection range	Resolution	WARNING	ALARM	Model	
Ammonia	NH <sub>3</sub>	25ppm	0.5~4ppm	0.1ppm	1ppm	2ppm	FP-300
Arsine	AsH <sub>3</sub>	5ppb	0~15ppb	0.1ppb	5ppb	10ppb	FP-301
Chlorine	Cl <sub>2</sub>	0.5ppm	0~1.5ppm	0.01ppm	0.25ppm	0.50ppm	FP-300
Diborane	B <sub>2</sub> H <sub>6</sub>	100ppb	0~300ppb	5ppb	50ppb	100ppb	FP-300
Hydrogen chloride	HCL	2ppm (C)	0.25~1ppm	0.025ppm	0.5ppm	0.75ppm	FP-300
			1.5~8ppm	0.1ppm	2.5ppm	5ppm	FP-300
Hydrogen fluoride	HF	2ppm (C)	0~6ppm	0.1ppm	1.5ppm	3ppm	FP-300
Hydrogen selenide	SeH <sub>2</sub>	50ppb	0~200ppm	1ppb	50ppb	100ppb	FP-301
Hydrogen sulfide	H <sub>2</sub> S	10ppm	0~100ppb	1ppb	17ppb	34ppb	FP-300
			0~10ppm	0.05ppm	1ppm	2ppm	
Phosphine	PH <sub>3</sub>	300ppb	0~500ppb (※3)	5ppb	150ppb	300ppb	FP-300
			0~900ppb				
Silane	SiH <sub>4</sub>	5ppm	0~8ppm (※2)	0.1ppm	2.5ppm	5ppm	FP-300
			0~15ppm				
Monomethylsilane (※2)	CH <sub>3</sub> SiH <sub>3</sub>	10ppm	0~8ppm	0.1ppm	2.5ppm	5ppm	FP-300
Tetrakisethylmethylaminohafnium (※2)	TEMAH	—	0~6ppm	0.1ppm	2ppm	4ppm	FP-300

Note : Please specify name of target gas and detection range when ordering.

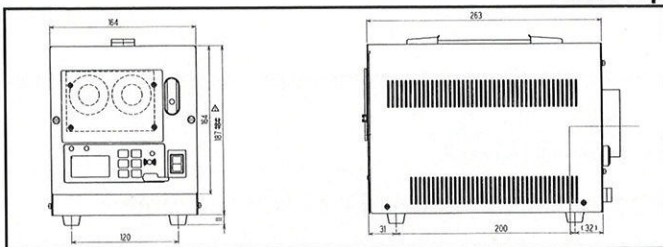
(※1) ACGIH 2007

(※2) For clean room condition. (constant temperature and humidity)

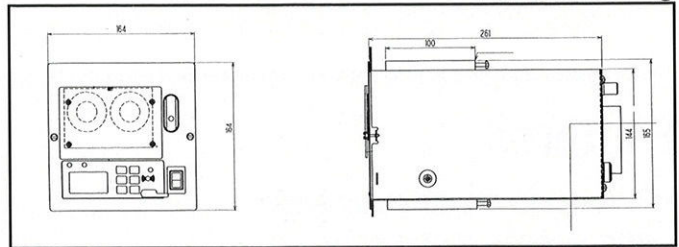
(※3) For scrubber application.

## Dimensions

Desk top



Panel mounting



• Contact our local agent for panel cut-out dimensions.



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