

RIKEN

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

HIGHLY SENSITIVE TOXIC GAS MONITOR

Model FP-300/FP-301

Photoelectric photometry method
with a gas detection cassette tape

**The World
Smallest!**



(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.



TOKYO PLANT · OKEGAWA FACTORY
RIKEN KEIKI ESAN SEISAKUSHO CO.,LTD



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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 ₃	25ppm	0.5~4ppm	0.1ppm	1ppm	2ppm	FP-300
Arsine	AsH ₃	5ppb	0~15ppb	0.1ppb	5ppb	10ppb	FP-301
Chlorine	Cl ₂	0.5ppm	0~1.5ppm	0.01ppm	0.25ppm	0.50ppm	FP-300
Diborane	B ₂ H ₆	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
Hydrogene selenide	SeH ₂	50ppb	0~200ppm	1ppb	50ppb	100ppb	FP-301
Hydrogen sulfide	H ₂ S	10ppm	0~100ppb	1ppb	17ppb	34ppb	FP-300
			0~10ppm	0.05ppm	1ppm	2ppm	
Phosphine	PH ₃	300ppb	0~500ppb ^(※3)	5ppb	150ppb	300ppb	FP-300
			0~900ppb				
Silane	SiH ₄	5ppm	0~8ppm ^(※2)	0.1ppm	2.5ppm	5ppm	FP-300
			0~15ppm				
Monomethylsilane ^(※2)	CH ₃ SiH ₃	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.

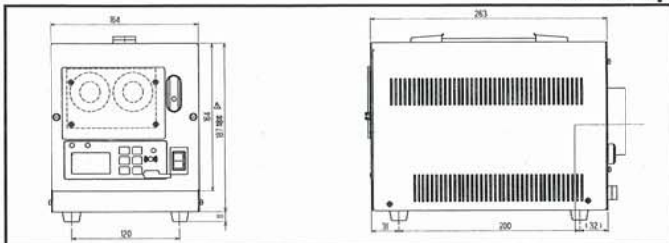
(※1) ACGIH 2007

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

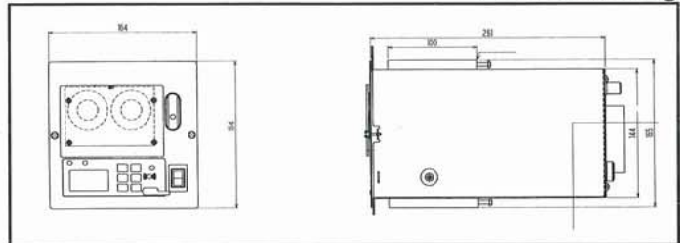
(※3) For scrubber application.

Dimensions

Desk top



Panel mounting



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



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