

Environmental gas monitor for semiconductor fabs and exhaust gas from manufacturing tools and scrubbers

# HIGH SENSITIVITY TOXIC GAS MONITOR

The World Smallest!

MODEL FP-300

Photoelectric photometry method with detection tape



# **FEATURES**

- Small and compact.
- Highly sensitive and ideal for low gas concentrations (ppb detection).
- ■Interference-free detection.
- Easy detection tape replacement with plug-in cassette.
- Tape remainder display and tape end warning alarm provided.







# Model FP-300

### Detectable gases and detection range (For environment / For scrubber)

| Detectable gas    |                               | TLV    | Detection range    | Resolution | 1st Alarm | 2 <sup>nd</sup> Alarm | Tape No. |
|-------------------|-------------------------------|--------|--------------------|------------|-----------|-----------------------|----------|
| Ammonia           | NHз                           | 25ppm  | 0.5~4ppm           | 0.1ppm     | 1ppm      | 2ppm                  | FC-010   |
| Arsine            | AsH3                          | 50ppb  | 0~150ppb           | 1ppb       | 50ppb     | 100ppb                | FCL-001  |
| Chlorine          | Cl2                           | 0.5ppm | ★ 0~0.8ppm         | 0.01ppm    | 0.25ppm   | 0.5ppm                | FCL-105  |
|                   |                               |        | 0~1.5ppm           |            |           |                       |          |
| Diborane          | B <sub>2</sub> H <sub>6</sub> | 100ppb | 0~300ppb           | 5ppb       | 50ppb     | 100ppb                | FCL-002  |
| Hydrogen chloride | HCI                           | 5ppm   | 0.25~1ppm          | 0.025ppm   | 0.5ppm    | 0.75ppm               | FC-004   |
|                   |                               |        | 1.5~8ppm           | 0.1ppm     | 2.5ppm    | 5ppm                  | FC-005   |
| Hydrogen fluoride | HF                            | 3ppm   | 0~9ppmb            | 0.1ppm     | 1.5ppm    | 3ppm                  | FC-006   |
| Hydrogen sulfide  | H <sub>2</sub> S              | 10ppm  | 0~100pp            | 1ppb       | 17ppb     | 34ppb                 | FCL-001  |
|                   |                               |        | 0~10ppm            | 0.05ppm    | 1ppm      | 2ppm                  |          |
| Phosphine         | РНз                           | 300ppb | <b>★ 0~</b> 500ppb | 5ppb       | 150ppb    | 300ppb                | FCL-001  |
|                   |                               |        | 0~900ppb           |            |           |                       |          |
| Silane            | SiH4                          | 5ppm   | ★ 0~8ppm           | 0.1ppm     | 2.5ppm    | 5ppm                  | FCL-002  |
|                   |                               |        | 0~15ppm            |            |           |                       |          |

Note : Detection range marked by \* is for scrubber use.

· please specify name of gas and measuring range when ordering.

#### **Specifications**

| Model                            | FP-300  |  |  |  |
|----------------------------------|---|--|--|--|
| Detection principle              | Photoelectric photometry method using tape cassette   |  |  |  |
| Detection tape                   | Plug-in cassette  |  |  |  |
| Detectable gas                   | See the table above.  |  |  |  |
| Accuracy                         | Within ±20% +1 of indication  |  |  |  |
| Operation time of the tape       | 1 month(with no alarm) Tape remainder display, Tape end warning                                 |  |  |  |
| Alarm preset point               | See the table above.  |  |  |  |
| Alarm functions                  | Latching(standard)or self reset Lamp(Caution:Yellow,Warning:Red)and buzzer                      |  |  |  |
| Self-diagnosis                   | Sensor failure, Low flow, Tape failure, Tape end warning, Failure of tape setting, System error |  |  |  |
| External output signal           | 4-20mA(300 Ω at maximum load resistance)  |  |  |  |
| Operating temperature & humidity | 5~35°C 30~90%RH(nom-condensing)   |  |  |  |
| Power supply & power             | 24VDC ±10% for panel mounting 100VAC, 110VAC, 117VAC, 220VAC for desk top                       |  |  |  |
| D'                               | [Panel mounting] Approx. 164(W)×164(H)×261(D) Approx. 5.5kg                                     |  |  |  |
| Dimensions & weight              | [Desk top] Approx. 164(W)×198(H)×263(D) Approx. 6.5kg   |  |  |  |

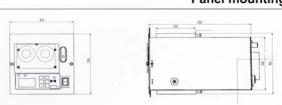
· Specifications subject to change without notice.

#### **Dimensions**



Desk top

#### Panel mounting



## **Applications examples**

- · Detecting of uncaptured gas from scrubber.
- · Environmental monitoring of Semiconductor fabs.

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