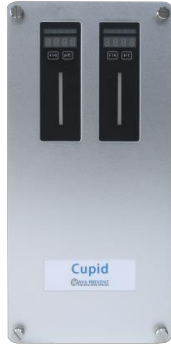


CUPID HM1, HM2

Single or Dual Zones Aspirating Smoke Detector

AVA PREVENT

Cupid Aspirating Smoke Detector integrates a unique combination of sensors, including smoke, CO, temperature, and humidity sensors, providing advanced detection capabilities across various applications.



- Mini 3 in 1 Display
- Alarm Sensitivity range 0.01~20% obs/m
- CO Detection Range : 0~1,000 ppm(Optional)
- Built-in Temperature & Humidity sensors
- 2 x Event Thresholds for Temp., Humidity and CO(if used)
- 4 Alarm Level (Alert, Action, Fire 1, Fire 2)
- 2 / 4 Relay Outputs(Configurable)
- Expansion Relays(Optional)
- RS 485 Network, Support Modbus RTU Open Protocol
- Listings / Approvals



Cupid utilizes a high-power Blue LED as its detection light source, ensuring exceptional sensitivity to small smoke particles during the incipient stage of a fire. It offers a balanced response to both small and large particles. Employing Large Volume "Three-Dimension" detection, Cupid utilizes a specially engineered smoke chamber structure, resulting in a significantly large total scattered light signal. This enables a more accurate representation of the actual concentration of smoke in the air. The Cupid Smart Smoke Level (SSL) algorithm automatically activates upon power-up of the device. Operating continuously, 24/7, it gathers data on background particle levels. The algorithm calculates the average background particle level and uses it as the reference point (zeroing) for detection, ensuring consistent performance and minimizing nuisance alarms.

The Cupid Mini Display and status bar serve to present the operational conditions, control options, and fundamental function adjustments of the detector.



- **Display Mode:** The Display Mode delivers real-time data including smoke value, Normalized flow value as a percentage, Flow Raw value, active Events, Temperature, Humidity, and CO value (if equipped).
- **Programmer Mode:** In Programmer Mode, users can configure essential settings such as alarm threshold adjustments, Fan speed alterations, and address changes.
- **Control Mode:** The Control Mode enables users to execute various actions including Reset, Isolate/De-isolate, Silence, and Display Test.

For comprehensive function customization, the AVA Tool application running on a PC is recommended. Alternatively, full function settings can also be accessed via AMS or NCP if the device is networked.

Specification

Smoke Detection Principle

- Light Scattering Mass Detection
- High Power Blue LED

Smoke Detection Range

- 0.02~25%/m

Alarm Sensitivity Range

- 0.01~20%/m

CO Detection Range

- 0~1,000 ppm

Temp. Detection Range

- 0~100 °C

Humidity Detection Range

- 0~100% RH

Coverage and Pipe Length

- Coverage :
 - HM1 : 1600m²
 - HM2 : 2000m²
- Pipe Length(Linear/Branch)
 - HM1: 105m/260m
 - HM2: 2 x 105m/2 x 260m

No. of Sampling holes

(EN54-20 Class A/B/C)

- HM1 : 8/16/30
- HM2 : 16/32/64

Alarm Levels and Time Delay

- Alert (0~60 sec.)
- Action (0~60 sec.)
- Fire-1 (0~60 sec.)
- Fire-2 (0~60 sec.)

Environment Smoke Learning

- 24hours, 365days Non-Stop Smoke Background Level Learning

Flow Detection Principle:

- Heat Mass Detection

Flow Monitoring

- Pipe Flow Normalize to 100%
- Flow High and Flow Low Fault
- Adjustable Flow Detection Sensitivity

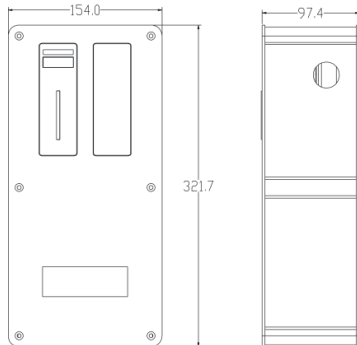
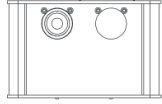
**Note: Per EN54-20 Class A Sensitivity. Please refer to AVA design manual for the details about pipe length and the number of sampling holes.*

CUPID HM1, HM2

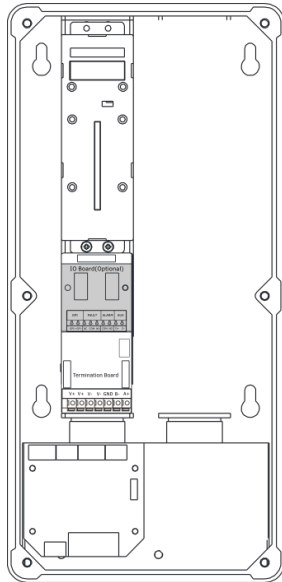
Single or Dual Zones Aspirating Smoke Detector

AVA PREVENT

HM1

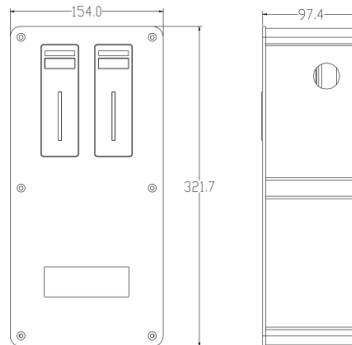
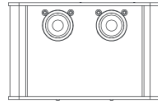


Dimensions(mm)

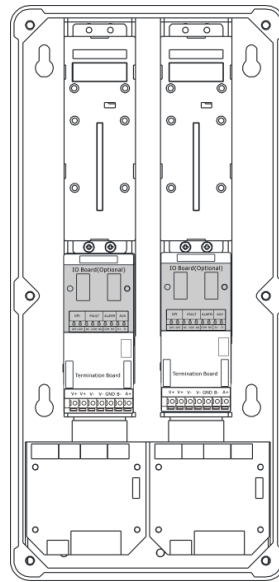


Internal Structure

HM2



Dimensions(mm)



Internal Structure

Part No.	Description
HM1	Single Zone ASD
HM1D	Single Zone ASD with CO
HM2	Dual Zones ASD
HM2D	Dual Zones ASD with CO
Expansion I/O	4 relays / 1 GPI

Aspirator Speed

- 10 Speed Adjustable

Relay Output

- HM1 : 2 Relays (Configurable)
- HM2 : 4 Relays (Configurable)
- Rating: 2A@30 VDC

Expansion Relays(Optional)

- HM1 : 4 Relays (Configurable)
- HM2 : 8 Relays (Configurable)
- Rating: 2A@30 VDC

General Purpose Inputs

- HM1 : 1 x GPIs (Configurable)
- HM2 : 2 x GPIs (Configurable)

Communication

- RS-485 Network
- Maximum number of devices on Network: 250
- Maximum cable length for all devices on network: 1.2km
- Support Modbus RTU open protocol

Event Logs

- Number of Events: 180,000
- Event Type:
Alarm/Fault/Operation/
Smoke/Flow/Temp./Humidity/C
O

Operating Conditions

- Ambient Temp.: 0~40 °C
- Tested : -30 °C ~ +55 °C
- Sampling Air Temp: -20~60 °C
- Humidity: 10~95% RH Non Condensing

Power(@Aspirator Speed 1~10)

- 24 ±4.8 Vdc
- HM1 : 115mA~157mA
- HM2 : 230mA~314mA

Dimension(WHD)

- 154.0mm x 97.4mm x 321.7mm

IP rating : IP51

Weight

- HM1 : 2.2kg
- HM2 : 2.3kg