

### Maximize Cost Performance for “Large Open Space” Very Early Warning Smoke Detection System



- ✓ Alarm Sensitivity Range: 0.005~20%/m
- ✓ Four Alarm Levels
- ✓ 7 Relay Outputs
- ✓ 3 in 1 Control/Display/Programmer Front Panel
- ✓ RS485 Network
- ✓ Support Modbus RTU Open Protocol

AVA uses high power, short wavelength blue LED as the detection light source. It is very sensitive to small smoke particles generated during the incipient stage of a fire, at which time the smoke is invisible to human eyes. The highest alarm sensitivity of AVA high sensitivity smoke detector is 0.005%/m, which is 1000 times more sensitive to conventional point type smoke detector.

#### 3 in 1 Front Panel: Control / Display / Programmer

- Control
  - <Reset>, <Isolate>, <Silence> & <Test> buttons
- Display
  - 20 segment smoke level bargraph
  - 6-digits Numerical LEDs Display Detector Information
    - Display Content 1: Real Time Smoke Level
    - Display Content 2: Real Time Airflow Level Airflow
    - Display Content 3: Device Address
    - Display Content 4: Active Event & Codes
  - 4 Fire Alarm Indicators
    - Alert, Action, Fire 1, Fire 2
  - 4 Fault Indicators
    - Detector, Airflow, System, Auxiliary
  - Isolated indicator
  - Beeper
- Programmer
  - Press <Func.> button for 2 seconds to login the Program Mode
  - Enter Access Password
  - Bargraph and 6-digits 7-Numerical LEDs display the function.
  - <Left>/<Right> buttons to switch function.
  - <Plus>/<Minus> buttons to change for 2 sec
  - Press <Enter> for 2 seconds to confirm setting.



QUARTAS 3 in 1 Front Panel

#### Specification

- Smoke Detection Principle
  - Forward Light Scattering
  - Mass Detection
- Smoke Detection Range
  - 0.001~25%/m
- Alarm Sensitivity Range:
  - 0.005~20%/m
- Major Components:
  - 4x Sampling Pipes
  - 4x Aspirators
  - 4x Flow Sensors
  - 1x High Sensitivity Smoke Detector
  - 1x Filter
- Maximum Pipe Length\*:
  - EN54-20 Class A
    - 4x100m (4x10 Holes)
    - 3x100m (3x13 Holes)
    - 2x100m (2x20 Holes)
  - EN54-20 Class B
    - 4x100m (4x15 Holes)
    - 3x80m (3x20 Holes)
    - 2x60m (2x25 Holes)
- Sampling Pipe
  - Material: ABS/UPVC
  - OD: 25mm
- 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

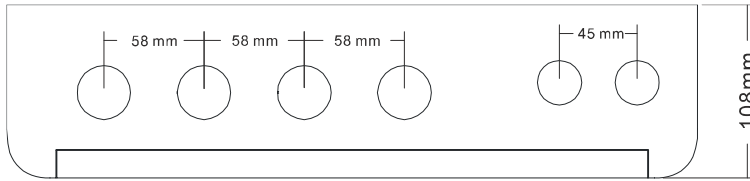
\*Note: Please refer to AVA design manual for the details about pipe length and the number of sampling holes.

For Detail Information Please refers to QUARTAS-500 Manual

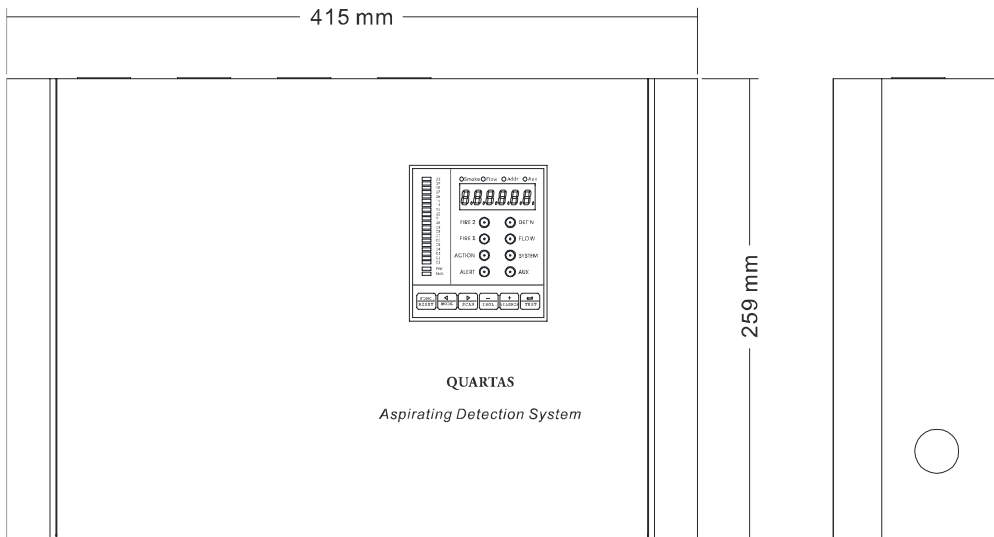
# QUARTAS

## Four Zone Aspirating Smoke Detector

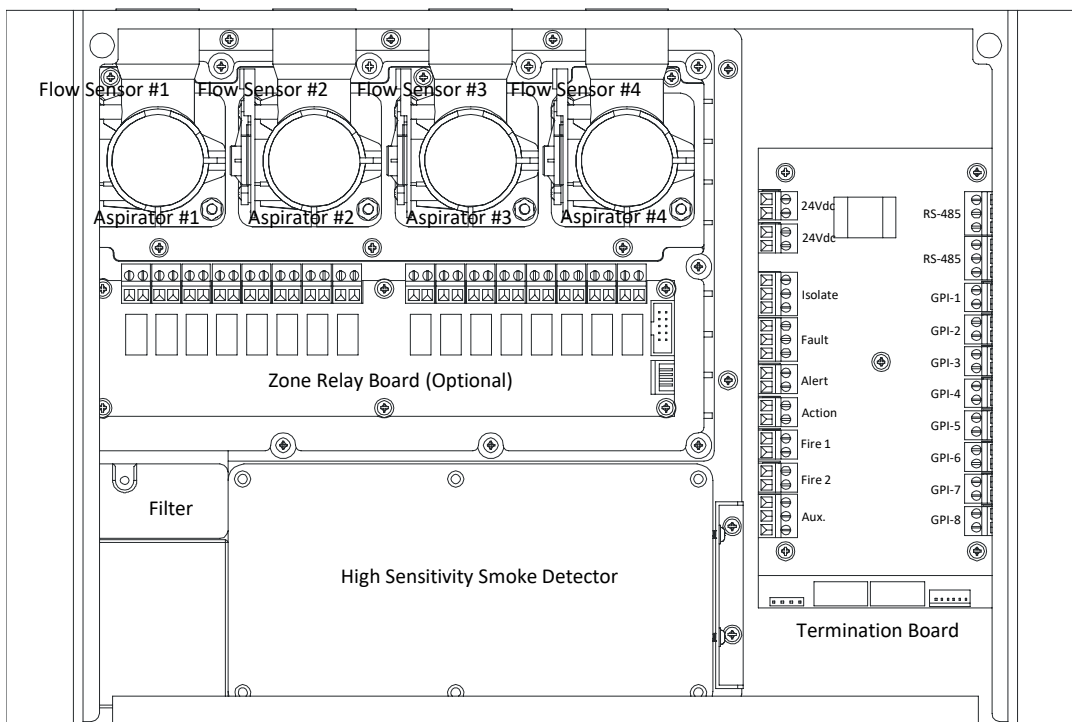
### Dimensions



Unit: mm



### Internal Structure



### Relay Output

- 7 Relays on Termination Board (Configurable)
- Rating: 2A@30 VDC

### Zone Relay Output (Optional)

- 16 Relays on Zone Relay Board (Configurable)
- Rating: 2A@30 VDC

### General Purpose Inputs

- 8xGPIs (Configurable)
- GPI Functions:
  - Reset/Isolate/Silence/Test/Scan/
  - Mains Fault/Battery Fault/Power Fault
  - Sensitivity Mode 1/Sensitivity Mode 2/UDI-1/UDI-2/UDI-4/UDI-5

\*Note: UDI, User Defined Input

### Communication

- RS-485 Network
- Maximum number of devices on Network: 250
- Built in repeater
- Maximum cable length between two adjacent devices: 1.2km
- Support Modbus RTU open protocol

### Event Logs

- Number of Events: 183000
- Event Type: Alarm/Fault/Operation/Smoke/Flow/Auxiliary Gas Sensors

### Operating Conditions

- Ambient Temperature: 0~40 °C
- Sampling Air Temperature: -20~60 °C
- Humidity: 10~95% RH Non Condensing

### Power

- 24 ± 4.8 Vdc
- 820mA

### Dimension

- Length=415mm
- Width=249mm
- Height=108mm

### Weight

- Net Weight: 5.2kg