

## Addressable Fire Alarm Control System FAP9108 Series



### I.Introduction:

The addressable fire alarm control panel is a dual wire analog bus system, it can replace the conventional fire alarm control system to save 50% or more cables.

Each detector, module, manual call point, horn, strobe ,hydrant has its own independent address, the fireman or the guard can find the exact fire alarm address instead of a wide area in conventional system.



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The YNA-FAP9108 series addressable fire alarm control panel is an advanced, perfect and reliable system, it has been used in many countries.

2-wire intelligent fire alarm control panel is compatible with listed intelligent detector, intelligent module, intelligent call point, intelligent horn/strobe etc.

## **II.Character:**

1. 32-bit MCU
2. 2-wire communication between detector/module
3. Each detector sensitivity adjustable
4. Field-programmable with USB standard PC keypad and mouse
5. 7.4' LCD back-lit display
6. Windows menu and interface
7. Chinese or English interface and panel display
8. CF card duplicate or reset system setup file and history file to facilitate maintenance
9. Communicate with PC via USB
10. Single point start/stop of module (Menu operation)
11. Single point test of detector/module
12. Zone, building or floor display
13. CRT visually display the location of fire and trouble
14. Eleven users each with a password and selectable access levels
15. Field software upgrade
16. 20 YNA-FAP9108 peer-to-peer, long-distance optical fiber transmission network via CAN communication transform module
17. Flexible collocation by modularized combination

## **Standards that apply**

GB 4717—93 *"General Technical Conditions for Fire Alarm Control Units"* GB 16806—1997 *"General Technical Conditions of control for Fire Protection Equipment"*  
CE certification

## Order information:

### Addressable photoelectric smoke detector YNA-SD930



#### I. Product overview

YNA-SD930 Addressable smoke detector (Detector hereunder) is a kind of photoelectric smoke detector. With an internal microprocessor, it supports electronic coding and is accessed through a compatible fire alarm control panel of YNA-FAP9108 via a two-wire bus. The detector realizes real-time acquisition of the in situ smoke concentration data and sends back the data to a fire alarm control panel. It can also receive and execute the control commands given by a fire alarm control panel. The detector is suitable for such industrial and civil buildings that have a great deal of smoke during fires but no smoke under normal circumstances, such as restaurants, hotels, teaching buildings, office buildings, computer rooms, communication machine rooms, libraries and archives. It is not suitable for places with a great deal of retained dust and water mist, places where steam and/or oil mist may be generated and places with retained smoke under normal circumstances.

#### II. Product features

1. It can realize electronic coding and rewrite the address via coder in situ.
2. Within a single-chip microcomputer, it can process the sampling data in real-time, save the latest 144 historical data and realize a curve tracing for the field situation.
3. It has a temperature, humidity and dust accumulation drift compensation function and a sensor fault detection function (fault reporting to fire alarm control panel).
4. Non-polarity, two-bus connection that ensures convenient installation and maintenance.
5. Designed with an upper cover and a lower cover and installed on an independent base, it can be installed, debugged and maintained conveniently.

#### III. Technical parameters

1. Executive standard: GB4715-2005
2. Operating voltage: 24V (pulse modulation)

3. Operating current: less than 300uA (monitoring status) or less than 1.5mA (alarm status)
4. Work indication: The red indicator will blink in the monitoring status or remain lit in the alarm status.
5. Weight: about 70g
6. External dimensions: diameter 100mm, height: 55mm (with the base)
7. Wiring method: non-polarity two-bus system (L1, L2)
8. Operating environment: indoor, temperature -10 degree~+55 degree; relative humidity: less than 95% (40 degree, without condensation)
9. Coding mode: It can realize electronic coding via coder in situ. Address codes 1 to 324 are available for selection.
10. Installation height: less than 12m
11. Protection area: about 60m<sup>2</sup>. For details, see related provisions in GB50116-98 *Code for Design of Automatic Fire Alarm System*
12. Matched host machine: fire alarm control panel (such as YNA-FAP9108)

## Addressable fixed temperature heat detector YNA-TD920



### I. Product overview

The YNA -TD920 addressable heat detector (Detector hereunder) is a mated product of the 9108 series fire alarm control panels. It uses a two-bus work mode. With an internal microprocessor, it supports electronic coding. The detector realizes real-time acquisition of the in situ temperature data and sends back the data to a fire alarm control panel. It can also receive and execute the control commands given by a fire alarm control panel. When in a routing inspection, the detector indicator will blink. When there is a fire in the monitored area and the temperature has reached the alarm threshold, the fire alarm control panel will confirm a fire alarm according to the received message sent from the detector, and the detector indicator will light at the same time to indicate a fire alarm. The detector is suitable for such industrial and civil buildings that have a great deal of heat when fire takes place, such as kitchens,



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boiler rooms, generator rooms, drying workshops and smoking rooms and is not suitable for places with a great deal of smoke but little heat.

## **II. Product features**

1. It can realize electronic coding and rewrite the address via coder in situ.
2. Within a single-chip microcomputer, it can realize real-time data acquisition and processing, realize a curve tracing for the field situation.
3. It has a temperature compensation function and a sensor fault detection function (fault reporting to fire alarm control panel).
4. Non-polarity, two-bus connection that ensures convenient installation and maintenance.
5. Designed with an upper cover and a lower cover and installed on an independent base, it can be installed, debugged and maintained conveniently.

## **III. Technical parameters**

1. Executive standard: GB4716-2005
2. Operating voltage: 24V (pulse modulation)
3. Operating current: <300uA (monitoring status) or <1.5mA (alarm status)
4. Work indication: The red indicator will blink in the monitoring status or remain lit in the alarm status.
5. Weight: about 47g
6. Product class: A2
7. External dimensions: diameter: 100mm, height: 56mm (with the base)
8. Wiring method: non-polarity two-bus system (L1, L2)
9. Operating environment: Indoor, temperature: -10°C~+50°C; relative humidity: ≤95% (40°C±2°C, without condensation)
10. Coding mode: It can realize electronic coding via coder in situ. Address codes 1 to 324 are available for selection.
11. Installation height: ≤8m
12. Protection area: about 60m<sup>2</sup>. For details, see related provisions in GB50116-98 *Code for Design of Automatic Fire Alarm System*.
13. Matched host machine: fire alarm control panel (such as YNA-FAP9108)

## Addressable smoke and heat combined detector YNA-SH936



### I. Product overview

YNA-SH936 addressable point type hybrid smoke and heat combined detector (Detector hereunder) is a multi-complex by the smoke detector sensor and semiconductor temperature sensors from the process structure and together constitute the circuit structure. It not only has a photoelectric smoke detector performance, and both temperature fire detector performance.

This detector is for the promise of the second bus system, with the company's FAP9108 series of alarm controller supporting.

### II. Product features

1. Electronic coding, project commissioning simple and reliable;
2. The Promise of wire bus;
3. With the key components of self-diagnostic function;
4. With drift compensation function and the accumulation of dust pollution reporting functions.

### III. Technical parameters

1. Executive standard: GB 4715-2005, GB4716-2005
2. Operating voltage: 24V (pulse modulation)
3. Operating current:  $\leq 0.5\text{mA}$  (monitoring status) or  $< 1.5\text{mA}$  (alarm status)
4. Sensing technology: the use of photoelectric sensors and temperature sensors dual sensor technology, thermal type: A2
5. Weight: about 100g
6. Encoding: Electronic, coding range is 1 to 324
7. External dimensions: diameter: 100mm, height: 55mm (with the base)
8. Wiring: Promise of wire
9. LED: red, blinking about once every 12 seconds when the patrol, alarm always
10. Operating environment: Indoor, temperature:  $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ; relative humidity:  $\leq 95\%$  ( $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , without condensation)
11. Installation height:  $\leq 8\text{m}$

12. Shell Material: ABS
13. Protection area: about 60m<sup>2</sup>. For details, see related provisions in GB50116-98 *Code for Design of Automatic Fire Alarm System*.
14. Matched host machine: fire alarm control panel (such as YNA-FAP9108)

## Addressable manual call point YNA-MC960



### I. Product overview

The YNA-MC960 addressable manual call point (manual call point for short) is mainly designed to be used with an intelligent two-bus control panel. If it is pressed after a fire is manually confirmed, an alarm signal may be sent to a fire alarm control panel which will, after receiving the alarm signal, display the coded address and the equipment status of the manual call point. When the manual call point is operating normally, the red indicator will blink; when there is a fire alarm, it will remain lit. The manual call point supports electronic coding and has a built-in fire telephone jack and a PHONE indicator, making its engineering application convenient.

### II. Product features

1. It can realize complete electronic coding and in situ rewriting with help of a coder.
2. Designed with an upper cover and a lower cover, it can be installed, debugged and maintained conveniently.
3. It is designed with a two-wire fire telephone jack and is therefore more applicable to engineering application.
4. Designed with passive output contacts, it can control other external equipment directly through an intermediate relay.
5. The pressing sheet on the manual call point will not get crushed after it is pressed, but can be reset by a special tool, so it can be used repeatedly.

### III. Technical parameters

1. Executive standard: GB19880-2005
2. Operating voltage: 24V (pulse modulation)
3. Operating current: <300uA (in the monitoring status); <2mA (in the action status)
4. Output contact: Normally open contact; capacity: 0.1A/30VDC
5. Weight: About 120g
6. Wiring method: nonpolar two-bus system (L1, L2)

7. Operating environment: Indoor, temperature:  $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ; relative humidity:  $\leq 95\%$  ( $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , without condensation)
8. Coding method: It can realize online coding with the help of a coder and without the necessity of disassembling the bus (however, the equipment must be powered off). Address codes 1 to 324 are available for selection.
9. Telephone jack: Two-wire fire telephone jack (equipped with a standard 6.3 single-track audio connector).
10. Starting part: A plastic pressing sheet that may be used repeatedly. It can be manually reset with a special tool after being pressed.
11. Starting mode: Press the pressing sheet manually.
12. Indicator: The red ALARM indicator will blink in the inspection status or remain lit in the alarm status; the PHONE indicator will blink when a fire telephone loop is connected, otherwise it will be out.
13. Matched host machine: fire alarm control panel (such as YNA-FAP9108).

## Addressable hooter/horn YNA-SS991



### I. Product overview

The YNA-SS991 addressable hooter/horn(hooter/horn for short) is a kind of product manufactured by our company to be used with bus-type fire alarm control units. Controlled by a microprocessor, the hooter/horn can realize real-time communication with a bus-type fire alarm control unit and receive the control commands sent by it. When in a routing inspection, the red status indicator will blink; after an accident happens, the hooter/horn will start to operate after receiving a startup command from the bus-type fire alarm control unit. The red status indicator will remain lit and the hooter/horn will give a flashing signal and an audible alarm signal to notify the persons on the scene of the accident that a fire has occurred on the site and of the necessity to take related evacuation measures, thus preventing the fire accident from becoming



a major one. The hooter/horn may be restored to the monitoring status after the MUTE or RESET key on the bus-type fire alarm control unit is pressed. The hooter/horn may be used to give audible alarms and flashing alarms on the scenes of accidents. It is suitable for places like high-rise residential buildings, public places, hotels, amusement buildings, factories, shopping centers, hospitals, schools, office buildings and stock exchanges, particularly places with low visibility or the possibility of generation of smoke.

## II. Product features

1. It can realize complete electronic coding and in situ rewriting with the help of a coder.
2. The audible alarm and flashing alarm may be set freely. In other words, the hooter/horn may give an audible alarm and a flashing alarm at the same time or separately and it can be adapted to different working environments.
3. Designed with an upper cover and a lower cover, it can be installed, debugged and maintained conveniently.
4. It uses multiple super bright red LEDs as light sources for visual display, ensuring a striking display, a longer service life and low power consumption.

## III. Technical parameters

1. Executive standard: GA385- 2002
2. Operating voltage: DC24V (pulse modulation)
3. Operating current: quiescent current:  $\leq 1\text{mA}$  (the current consumed by the bus); alarm current:  $\leq 120\text{mA}@DC24\text{V}$
4. Operating environment: Temperature:  $-10^{\circ}\text{C}\sim+55^{\circ}\text{C}$ ; relative humidity:  $\leq 95\%$  ( $40^{\circ}\text{C}$ , without condensation)
5. Flushing rate: one time/s
6. Alarm volume:  $>85\text{dB}$  (measured at a place 3m in front of the hooter/horn)
7. Coding method: Electronic coding
8. Wiring method: Four-wire system, non-polarity two signal buses (L1, L2) and power lines (+24V, GND)
9. Matched host machine: fire alarm control panel (such as YNA-FAP9108)

## Addressable input module YNA-IM952



## I. Overview

The YNA-IM952 Intelligent input module (FM-IM952 module for short) is used with FAP9108, a two-bus fire alarm control panel. It can be connected with a conventional smoke detector, a conventional heat detector, a conventional manual call point, a conventional hooter/horn and some other equipment. After the said equipment starts to operate, the alarm signal output will be sent by the YNA-IM952 module to the fire alarm control panel through a signal bus to give a fire alarm.

## II. Features and technical parameters

1. Mode of operation: Nonpolar two-wire system
2. Quiescent current: <0.5mA (bus); <6mA (power line)
3. Action current: <2mA (bus); <15mA (power line)
4. Operation indicator: The inspection indicator will blink once about every 12 seconds in the inspection status or remain lit in the operation status.
5. Operating environment: Temperature: -10°C~50°C; relative humidity: ≤95%  
(40°C±2°C, without condensation)
6. Terminal load: 4.7K resistance
7. External dimensions: 86×86×40(mm)
8. Weight: about 119g
9. Executive standard: GB16806-2006.

## Addressable output module YNA-OM956



## I. Overview

The YNA-OM956 Intelligent Input/Output Module (FM-OM956 module for short) is used with YNA-FAP9108, a two-bus linkage fire alarm control panel. It is mainly used to realize an output control for fire linkage equipment (such as smoke dampers, blow valves and fire dampers) and receive the feedback signals of the fire linkage equipment so that a judgment on whether or not the fire linkage equipment is operating normally can be done.

## II. Features and technical parameters

1. Mode of operation: Nonpolar two-wire system
2. Quiescent current: <0.6mA (power-down mode)
3. Action current: <10mA
4. Capacity of the output control contact: 2A@DC30V
5. Operation indicator: The inspection indicator will blink once about every 12 seconds in the inspection status or remain lit in the output status; the input indicator will remain lit in the feedback status.

6. Operating environment: Temperature: -10°C~50°C; relative humidity: ≤95% (40°C±2°C, without condensation)

7. Terminal load: 47K resistance
8. External dimensions: 86×86×40(mm)
9. Weight: about 130g
10. Executive standard: GB16806-2006

## Coder YNA-CD900



### I. General description

YNA-CD900 address writer is a kind of peripheral auxiliary equipment designed for matching the application of detectors and modules, etc., mainly used to write an address code to a detector or a module, etc. and read an address code from them.

### II. Functions and features

1. Power can be supplied by using lithium batteries, external power 24VDC or external power adapter;

2. Lower power consumption, portable, convenient for utilization;
3. Automatic shutdown and low voltage inspection functions.

## Repeater YNA-RP982



### I. Overview

The YNA-RP982 fire display panel (display panel for short) is a kind of microprocessor-controlled fire display panel developed by our company. Each display panel is connected to a fire alarm control panel produced by our company via a special RS-485 interface to process and display the data sent from the fire alarm control panel. Each floor of a building may have a display panel installed. When there is a fire alarm on the floor where the display panel is installed, or the neighboring floor above or below it, the display panel will give a horn/strobe alarm and display the floor No., the room No., and some other position information of the fire alarm.

### II. Features and technical parameters

1. Executive standard: General Technical Conditions for Fire Indicating Panels (GB17429-1998)
2. Display capacity: Each display panel can display the fire alarm messages of floors -10~90 and at most 99 fire alarm messages or feedback messages.
3. Wiring system: Four-wire system, power lines (+24V, GND) and RS485 signal lines (485A, 485B)
4. Operating environment: Indoor; temperature: -10°C ~ +50°C; relative humidity: ≤95% (40°C, without condensation)
5. Power supply: DC 24V ±20 %
6. Overall power consumption: < 3W
7. Contact capacity: Relay dry contacts, normally open or normally closed, capacity: 1.25A/DC30V (resistive load)