

Fire Alarm System

for small and mid-size buildings



INTRODUCTION

Innovation, cost-effective, and a rich tradition of excellence

When building owner and designer partners with NERD360 their investment is underwritten by a solid 24 years history of dedication to the fire alarm industry. That is why today's engineer and consultant agree that when it come to life safety, NERD360 remains the cost-effective technology choice.

NERD360 partners are independent contractor that form an integral part of our marketing and support organizations. They enjoy exclusive access to products, custom design innovations, and specialized training in insuring that each proposal is strong, competitive, and cost-effective.

These strength set NERD360 installation apart, and have earned this brand a special place among life safety solutions available today.

Be our partner now. Contact your NERD360 partner today.

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Conventional Fire Alarm System





AE-CF02Z 2-ZONES
AE-CF04Z 4-ZONES
AE-CF08Z 8-ZONES
AE-CF016Z 16-ZONES

AE-CF SERIES

Conventional Fire Alarm Control Panel

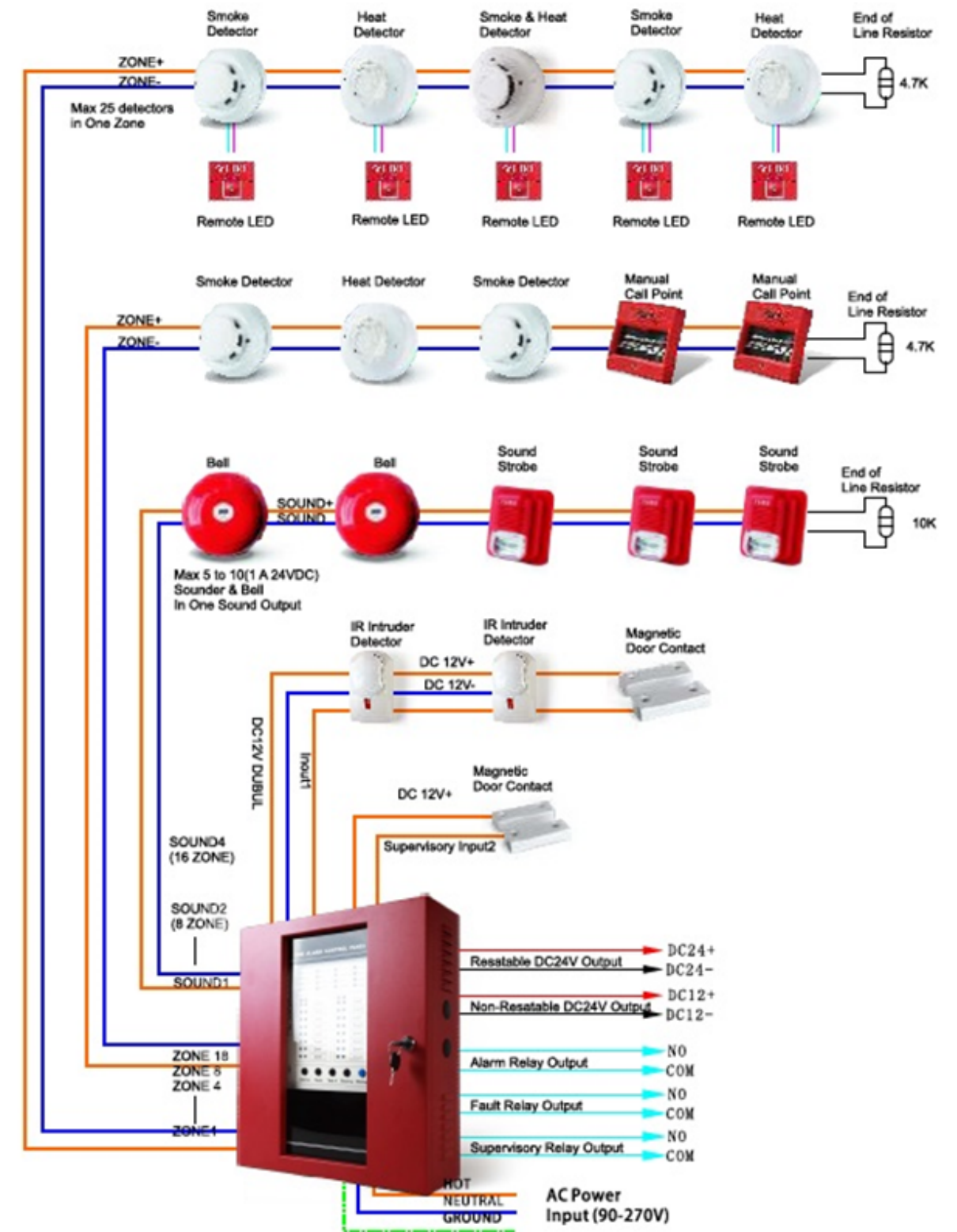
The AE-CF Series fire alarm family consists of 2, 4, 8, and 16 zone conventional fire alarm control panels which uses conventional input devices. The panel accepts water flow devices, two-wire smoke detectors, four-wire smoke detectors, pull stations and other normally-open contact devices. Outputs include four Notification Appliance Circuits (NAC, SOUND1-4), three standard Form-A relays (alarm, trouble and supervisory) and an EIA-485 port to interface with remote annunciators and optional remote relay modules. The FACP is field programmable via the panel keypad. It also supervises all wiring, AC voltage and battery level.

2,4,8,16 Class B Initiating Device Circuits (IDCs). All zones accept conventional detectors and any normally open contact device, Four Class B Notification Appliance Circuits (NACs), One Form-A Alarm Relay, One Form-A Trouble Relay, One Form-A Supervisory Relay, 3.0 amps of system power, Max 20 conventional detectors in one zone. Auto/Manual mode setting enable walk test. Each Zone can be disabled. Sound output can be disabled. Manual active sound output enabled. Able to report short and broken circuit of detection zones. Designed with standby batteries and space provision for two sealed lead-acid batteries. Testing and disable functions.

Standard Features

- Two to Sixteen Style B (Class B) Initiating Device Circuits (IDCs).
- All zones accept two-wire smoke detectors and any normally-open contact devices.
- Four built-in, Style Y (Class B) Notification Appliance (Signal) Circuits (NACs).
- Alarm, Trouble and Supervisory, Form-C relays standard.
- 24-volt operation.
- Resettable four-wire smoke detector power @ 500 mA.
- Non-resettable power @ 500 mA.
- One-man walk-test programmable for silent or audible test.
- Disable/Enable control per IDC.
- Reverse polarity protection

Wiring Diagram





AE-CSD-400

Conventional Photoelectric Smoke Detector

The device is photoelectric detector uses a state-of-the-art optical sensing chamber. This detector is designed to provide open area protection and to be used with most conventional fire alarm control panel.

Two LEDs on each detector provide local 360° visible alarm indication. They flash every 3~5 seconds indicating that power is applied and the detector is working properly. The LEDs latch on in alarm. LEDs will be off when a trouble condition exists indicating that the detector sensitivity is outside the listed limit. The detector can be reset only by a momentary power interruption.

Standard Features

- Compatible with all the conventional fire alarm control panel
- Unpolarized wire input
- Wide range of operating voltages
- Unique optical sensing chamber
- Built in microprocessor
- Two LEDs blink standby, provide 360° visibility
- Insect-resistant screening
- Twist-on mounting base with tamper lock
- Drift compensation and smoothing algorithms
- Remote indicator LED can be connector



AE-CHD-110 Conventional Heat Detector

The device is a combination of rate-of-rise and fixed temperature heat detector using heat thermistor sensor. This detector is designed to provide open area protection and to be used with most conventional fire alarm control panel.

Two LEDs on each detector provide local 360° visible alarm indication. They flash every 3~5 seconds indicating that power is applied and the detector is working properly. The LEDs latch on in alarm. LEDs will be off when a trouble condition exists indicating that the detector sensitivity is outside the listed limit. The detector can be reset only by a momentary power interruption.

Standard Features

- Compatible with all the conventional fire alarm control panel
- Unpolarized wire input
- Wide range of operating voltages
- Unique high precision electronic thermistor
- Built in microprocessor
- Two LEDs blink standby, provide 360° visibility
- Insect-resistant screening
- Twist-on mounting base with tamper lock
- Drift compensation and smoothing algorithms
- Remote indicator LED can be connector



AE-BD-100 **Conventional** **Reflex Beam** **Smoke Detector**

Standard Features

- Compatible with all the conventional fire alarm control panel
- Unpolarized wire input
- Wide range of operating voltages
- Unique high precision electronic thermistor
- Built in microprocessor
- Two LEDs blink standby, provide 360° visibility
- Insect-resistant screening
- Twist-on mounting base with tamper lock
- Drift compensation and smoothing algorithms
- Remote indicator LED can be connector

This is a long-interval reflection line infrared beam smoke detector which must be used together with a reflector. In case of smoke on the light path of the detector, the signal arriving at the receiver is reduced; when the light reduction rate reaches the preset threshold, the detector will produce the alarm signal; when the light beam is completely blocked, the detector will produce the fault signal to prevent the false alarm caused by non-fire blockage. Thanks to the built-in uniprocessor with excellent performance, the detector has a powerful analysis and judgment capability and can automatically complete the systematic debug, the compensation for external environmental parameter variation, and the judgment of fire alarm and fault, and also can give status indication through the indicator lamp and the signal output terminal. The detector adopting a brand-new and reasonable structural design is sensitive in adjustment, correct in positioning, easy in installation, and simple and convenient in debugging method. The detector contains a group of alarm passive normally open contacts and a group of fault alarm normally closed contacts as well as 4-20mA standard signal output to be conveniently connected with the fire alarm system and DCS system of plants of fire fighting equipment.



AE-MCP-120

Conventional Manual Call Point (Break Glass)

The conventional manual call point designed for conventional fire alarm system for reporting fire or emergency condition by pressing its break glass. The manual call point can be tested by a test key without breaking the glass.

Standard Features

- Compatible with all the conventional fire alarm control panel
- Can be reset by key
- 470 ohm resistance
- Easy surface mounting base included



AE-CAB-006 Conventional Alarm Bell

NERD360 Fire Alarm Bells are specially designed for fire alarm applications. The gongs are made of selected alloy steel to give the loud, resonant tones necessary in fire alarm systems. Two gong sizes are available to overcome different ambient noise level. The Fire Alarm Bells are of the underdome type with heavy duty mechanisms. Each bell is supplied with a mounting plate that fits any standard single-gang opening .

Standard Features

- Compatible with all the conventional fire alarm control panel
- Motor drive & Striker Mechanism fire alarm bell
- 40mA Low current consumption with high DB output
- Water-proof base design
- Gong Material: Aluminum Alloy
- Wall-mounted
- Size of Gong with 6 inches
- Simple installation via terminals of screw
- Two wires

Addressable Fire Alarm Solution





AE-AFS-100P 100-ADDRESSES
AE-AFS-200P 200-ADDRESSES
AE-AFS-324P 324-ADDRESSES

KS-AFS SERIES

Single Loop Addressable Fire Alarm Control Panel

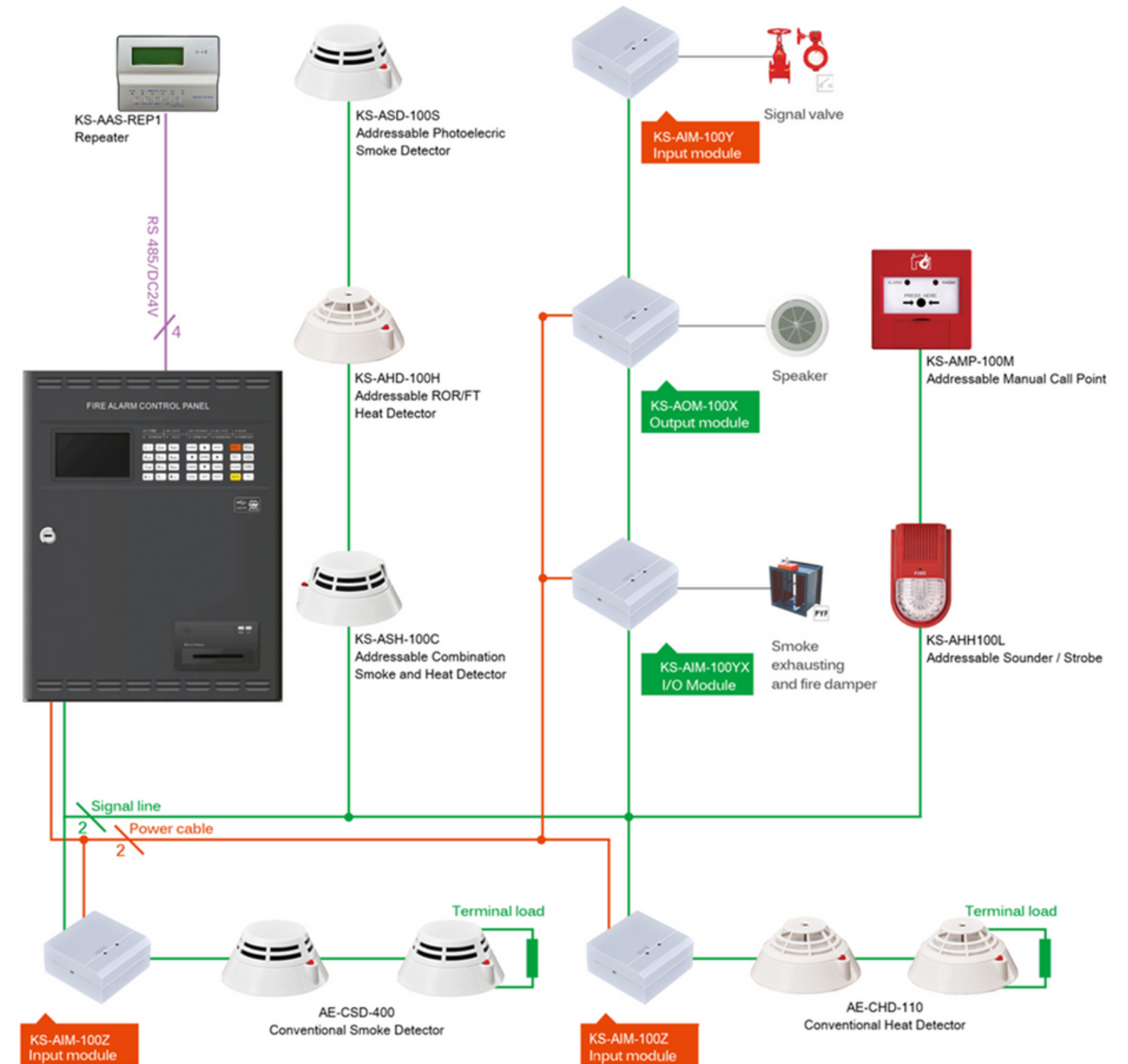
KS-AFS Series runs up to 100/ 200/ 324 addresses with single loop, detectors and modules report alarm signal actively. Three adjustable sensitivity modes for environmental variations, it is ideal to meet various environment requirements in any area, suitable for small or medium sized commercial and industrial premises. With this robust, enhanced and proved Digital Systems Protocol running for ten years, the control panel epitomize quality, durability and reliability. Further more, it can be networked to become part of much larger systems if needed, therefore providing a future proof solution for any installation.

It is an entry level intelligent addressable control panel which can be configured for 1 loop operation. Circuit is equipped by optional addressing points, addresses and device types identified automatically, also designed to reduction of the equipment cost. The simplicity of operation, detailed cause and effect programming capability and competitive pricing make the system suitable for a wide range of small to medium sized projects.

Standard Features

- 4.3" color LCD, resolution 430×272
- Configurable as a 1 loop panel, up to 324 addresses.
- Windows/ Excel-like friendly user interface combined with keypad, mouse, key switch and USB port make operation convenient.
- Flexible distributed network capability, up to 20 sets of KS-AFS can be interconnected.
- Non-polarity two-wire bus makes cabling easy and avoids mistakes.

Wiring Diagram





KS-AFS-1944P

Multi Loop

Addressable Fire Alarm Control Panel

The KS-AFS-1944P series control panel (linkage type) (fire alarm control panel) is a new generation product launched by NERD360. In order to adapt to the needs of engineering design, the fire alarm control panel is designed with a linkage control function that enables it to be flexibly used with other related products from NERD360 to form a fire alarm and linkage integrated control system. It is particularly suitable for applications in large and medium-sized fire alarm and linkage integrated control systems.

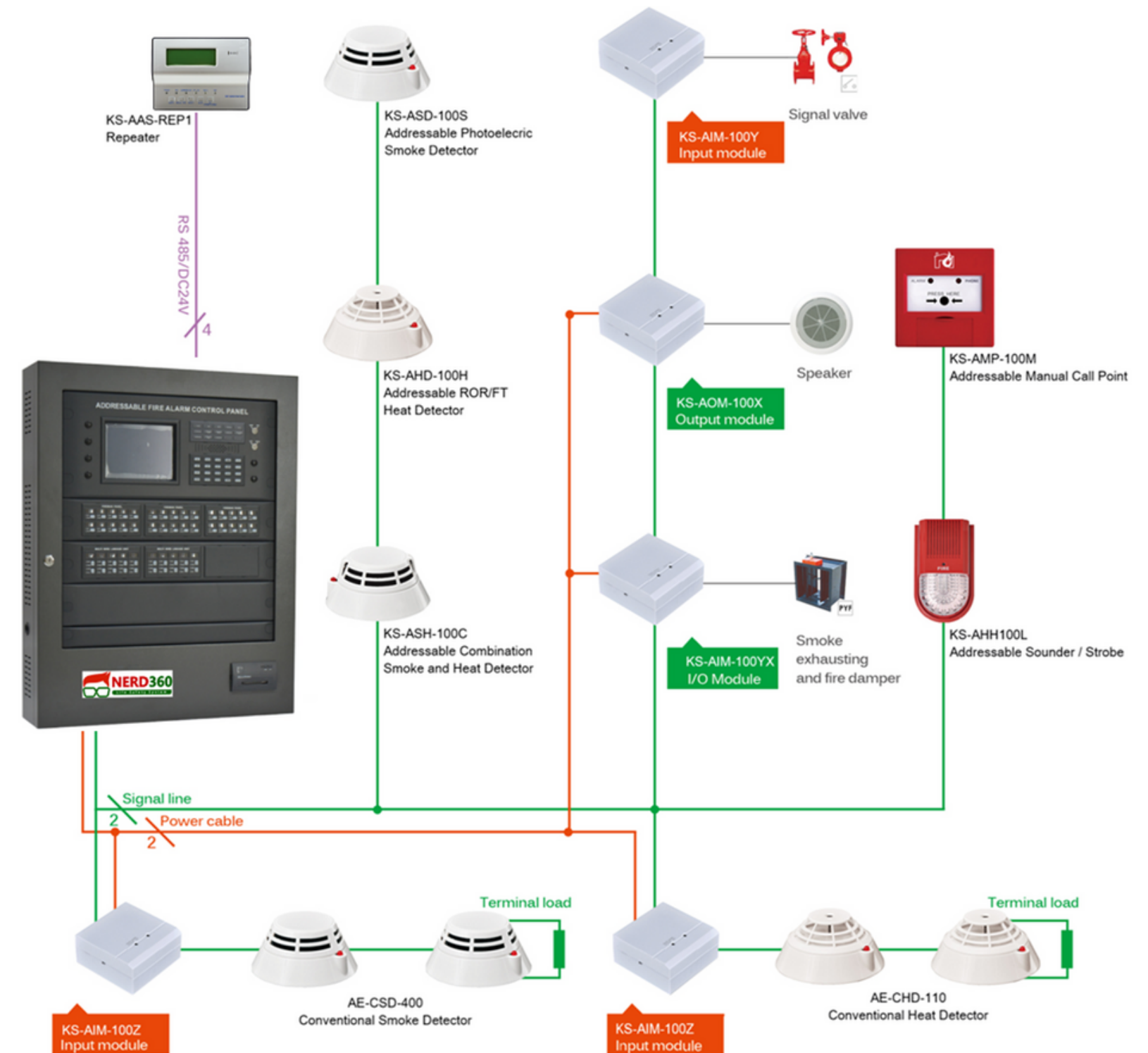
The KS-AFS-1944P series addressable control panel is a dual wire analog bus system. It can replace the conventional fire alarm system to save 50% or more cables.

The KS-AFS-1944P series addressable control panel is an advanced, perfect and reliable system, which is designed for big projects, has been used in many countries.

Standard Features

- 4.3" color LCD, resolution 430×272
- Configurable as a 1 loop panel, up to 324 addresses.
- Windows/ Excel-like friendly user interface combined with keypad, mouse, key switch and USB port make operation convenient.
- Flexible distributed network capability, up to 20 sets of KS-AFS can be interconnected.
- Non-polarity two-wire bus makes cabling easy and avoids mistakes.

Wiring Diagram





KS-AAS-REP1 Addressable Fire Repeater

Standard Features

- Built-in standalone CPU, quick calculating speed.
- Connect KS-AFS Series controller by RS-485 bus, and each control panel can be with 99 units of fire display panels and KR-485 expansion cases, and each KR-485 expansion case can be with up to 50 fire display panel.
- It can give sound and light alarm signal, and support fault detecting and then warning by itself.

KS-AAS-REP1 Addressable Fire Repeater are high-performance fire repeater that provide status indication and common controls for compatible with KS-AFS Series through KR-485 bus. Upto 50 addressable fire repeater can be connected.

This Fire Repeater include status LEDs and an internal buzzer. Surface mounted enclosures.



KS-ASD-100S

Addressable Photoelectric Smoke Detector

Standard Features

- Built-in standalone CPU, quick calculating speed and excellent stability.
- Non-polarity two-wire bus to make cabling easy, and avoid wrong wiring.
- It adopts backward scattering maze and makes it more sensitive to detect the smoke generated from burning of different materials.

KS-ASD-100S is a photoelectric smoke detector with an internal microprocessor. It supports electronic coding and is accessed through a compatible fire alarm control panel 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.



KS-ASH-100C

Addressable Multi-Sensor Smoke and Heat Detector

KS-ASD-100S is a combination of addressable smoke and heat detector with an internal microprocessor. It supports electronic coding and is accessed through a compatible fire alarm control panel via a two-wire bus. It 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.

Standard Features

- It comprises optical smoke and thermistor temperature sensors which give both a combined signal as well as a separate heat signal for improved false alarm management.
- It adopts backward scattering maze and makes it more sensitive to detect the smoke generated from burning of different materials.



KS-ASH-100H

Addressable Rise/Fixed Temperature Heat Detector

KS-AHD-100H is an addressable rate-of-rise and fixed temperature heat detector with an internal microprocessor. It supports electronic coding and is accessed through a compatible fire alarm control panel via a two-wire bus. 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, boiler rooms, generator rooms, drying workshops and smoking rooms and is not suitable for places with a great deal of smoke but little heat.

Standard Features

- Built-in standalone CPU, quick calculating speed and excellent stability.
- Non-polarity two-wire bus to make cabling easy, and avoid wrong wiring.
- Sealed robber type of heat sensitivity component enhances anti-humidity and anti-erosion.
- Three sensitivity levels of the detector are optional at the control panel to suit different environments.



KS-AMP-100M

Addressable Manual Call Point (Break Glass)

KS-AMP-100M is an addressable manual call point 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.

Standard Features

- Built-in standalone CPU, quick calculating speed and excellent stability.
- Non-polarity two-wire bus to make cabling easy, and avoid wrong wiring.
- Pressing the lever sheet on the fire call points to confirm the fire alarm, it can be reset by the special tool.



KS-AIM-100Y Addressable Input Module

Standard Features

- Built-in standalone CPU, quick calculating speed.
- Non-polarity two-wire bus to make wiring easy, and avoid mistakes.
- Special production process to make the device can work at high temperature, high humidity and high altitude.
- ESD static protection grade 12000V, strong anti-interference ability.
- Receives external device's input signal, and delivers the signal to the controller.

KS-AIM-100Y is an Intelligent input module used with two-bus fire alarm control panel. It can be connected with a conventional smoke detector, a conventional heat detector, a conventional manual call point, waterflow/tamper signal, and etc.

After the said equipment starts to operate, the alarm signal output will be sent by the KS-AIM-100Y module to the fire alarm control panel through a signal bus to give a fire alarm.



KS-AIM-100Z Addressable Input (Zone) Module

KS-AIM-100Z is an Intelligent input module used with two-bus fire alarm control panel. It can be connected with a conventional smoke detector, a conventional heat detector, a conventional manual call point, waterflow/tamper signal, and etc.

After the said equipment starts to operate, the alarm signal output will be sent by the KS-AIM-100Z module to the fire alarm control panel through a signal bus to give a fire alarm.

Standard Features

- Built-in standalone CPU, quick calculating speed.
- Non-polarity two-wire bus to make wiring easy, and avoid mistakes.
- Connect conventional detector, manual call point or fire hydrant button, and deliver the alarm signal to the controller.
- Each module can connect up to 25 conventional detectors.
- Special production process to make the device work at high temperature, high humidity and high altitude.
- ESD static protection grade 12000V, strong anti-interference ability.



KS-AIM-100XY Addressable Input-Output Module

KS-AIM-100YX is an Intelligent input-output module used with two-bus 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.

Standard Features

- Built-in standalone CPU, quick calculating speed.
- Non-polarity two-wire bus to make wiring easy, and avoid mistakes.
- Special production process to make the device can work at high temperature, high humidity and high altitude.
- ESD static protection grade 12000V, strong anti-interference ability.
- Give the control signal to external device and receive the feedback signal from the device to judge if the external device worked, and the DC24V is needed when signal is active.



KS-AIM-100X Addressable Output Module

KKS-AOM-100X is an Intelligent output module used with two-bus 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), notification appliances (such as conventional horn, strobe, and bell) 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.

Standard Features

- Built-in standalone CPU, quick calculating speed.
- Non-polarity two-wire bus to make wiring easy, and avoid mistakes.
- Special production process to make the device can work at high temperature, high humidity and high altitude.
- ESD static protection grade 12000V, strong anti-interference ability.
- Receives feedback signals of the linkage equipment, and delivers the signal to the controller.
- Control notification appliances.



KS-ANA-100HS

Addressable Horn-Strobe

Standard Features

- Built-in standalone CPU, quick calculating speed and excellent stability.
- Non-polarity two-wire bus to make cabling easy, and avoid wrong wiring.
- Sounder/ visual indicator setting freely according to different environment.
- With super bright red LED, it features markedness, long lifespan, and low consumption.
- Special production process to make the device work at high temperature, high humidity and high altitude environment.
- ESD static protection grade 12000V, strong anti-interference ability.

KS-ANA-100HS is an addressable horn-strobe used with bus-type fire alarm control units. Controlled by a microprocessor, the horn-strobe 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 start-up 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 horn-strobe may be restored to the monitoring status after the MUTE or RESET key on the bus-type fire alarm control unit is pressed. The horn-strobe 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.

Contact us to learn more



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