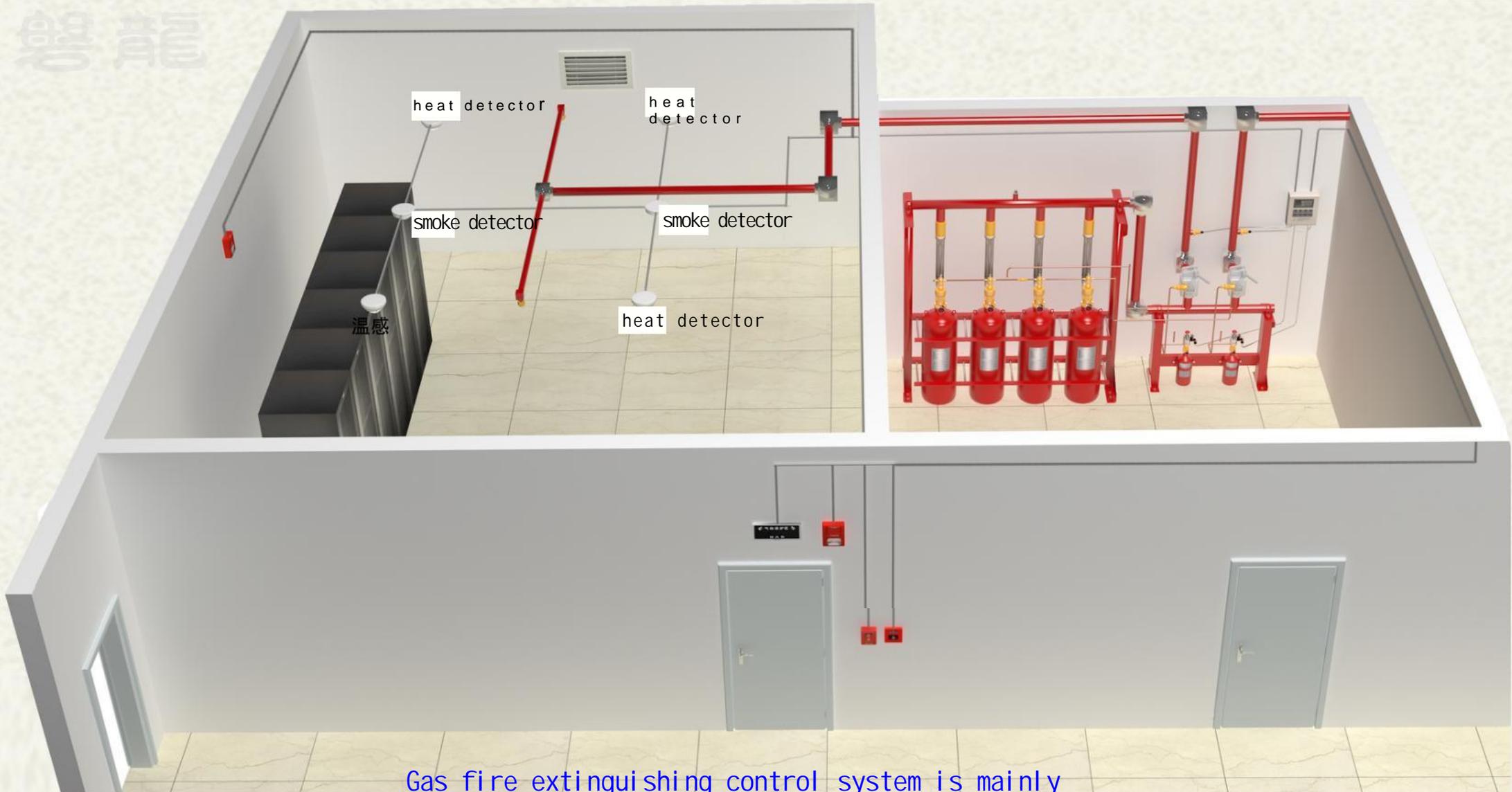


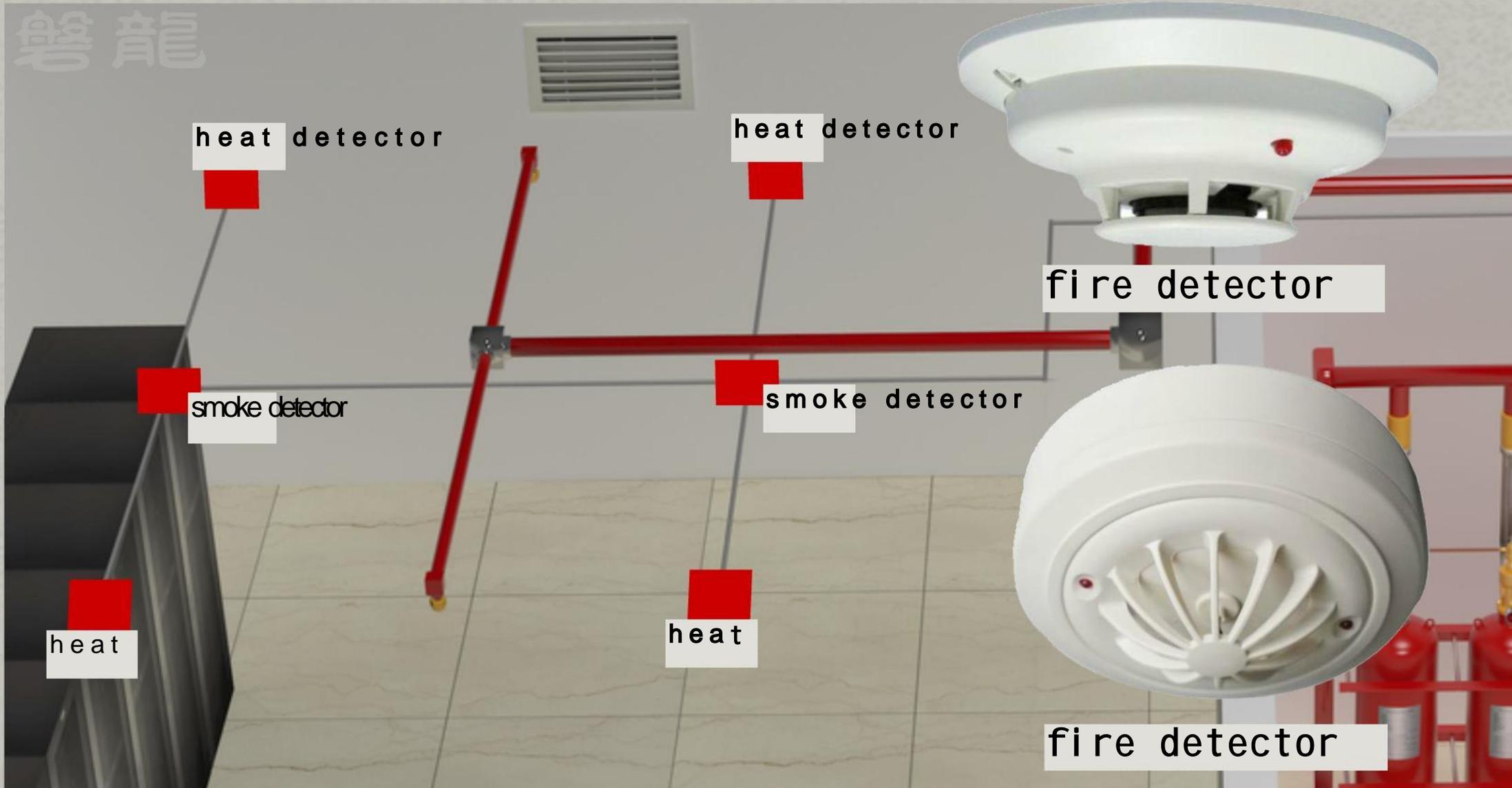
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Gas fire extinguishing control system is mainly composed of gas fire extinguishing controller,

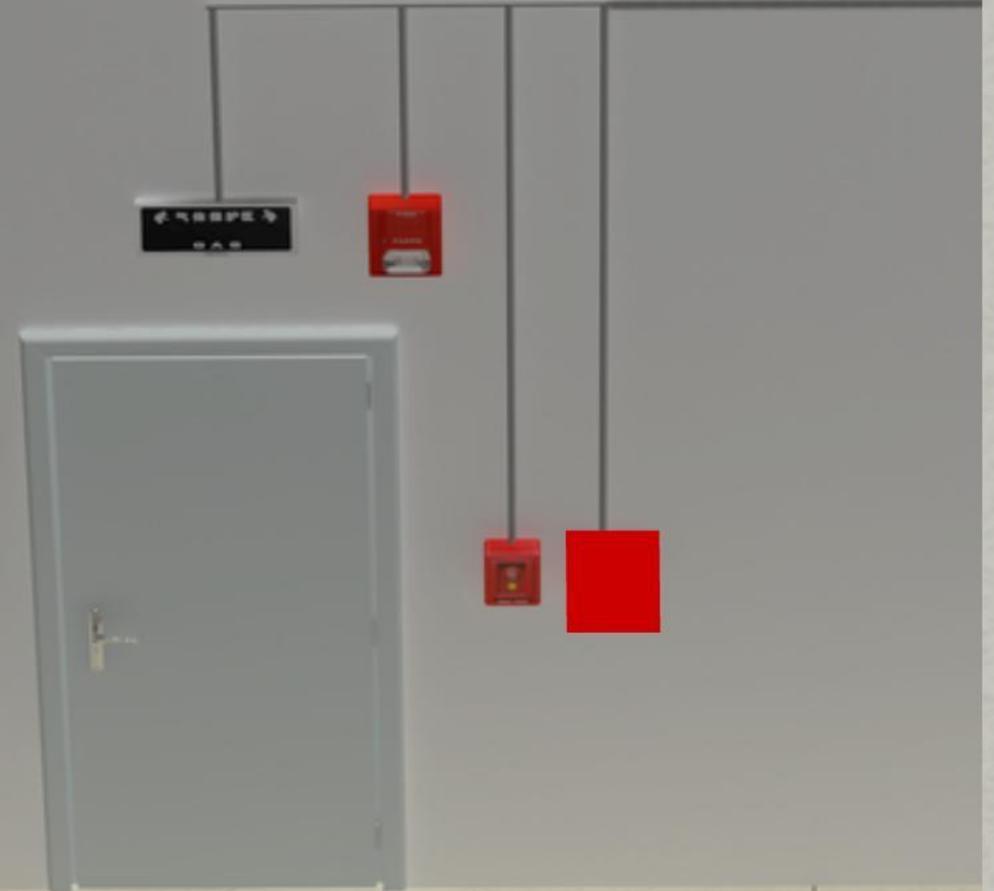
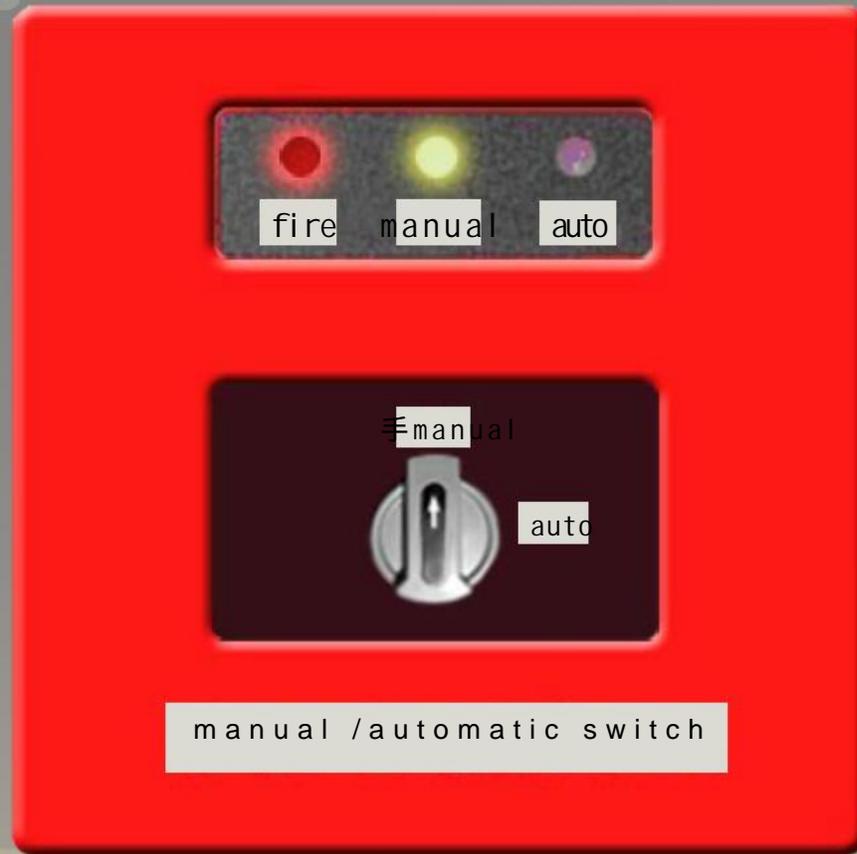


gas extinguishing controller



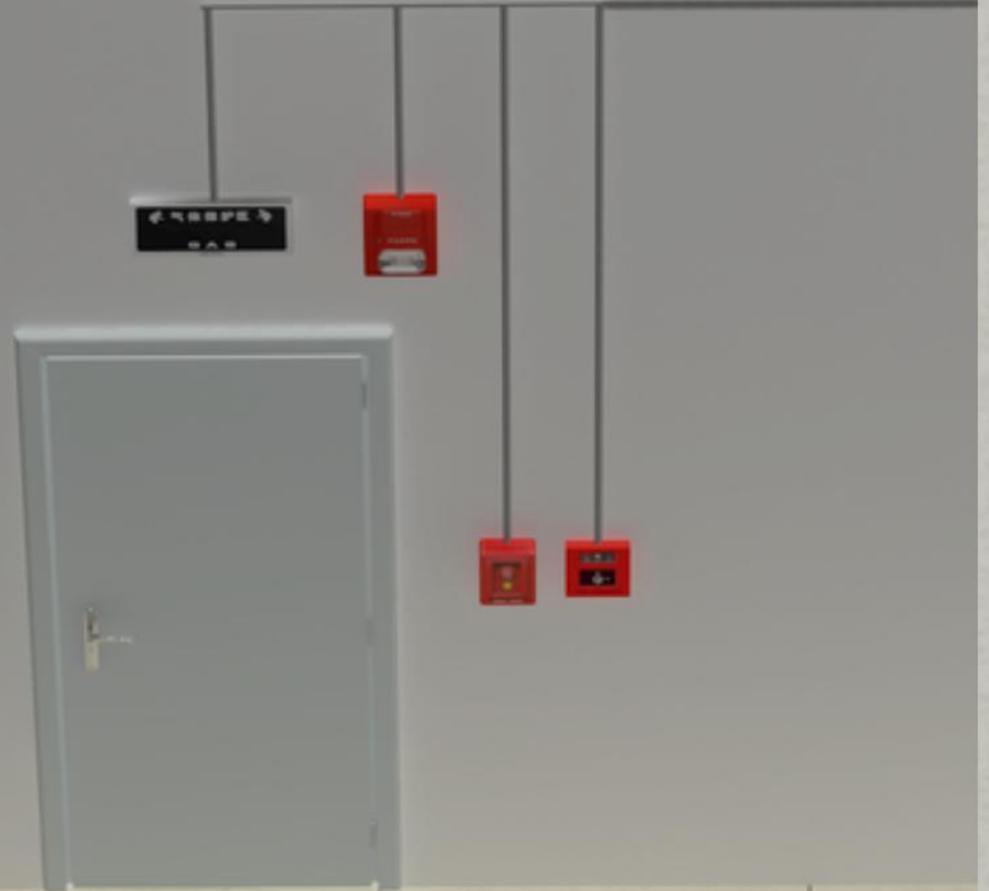
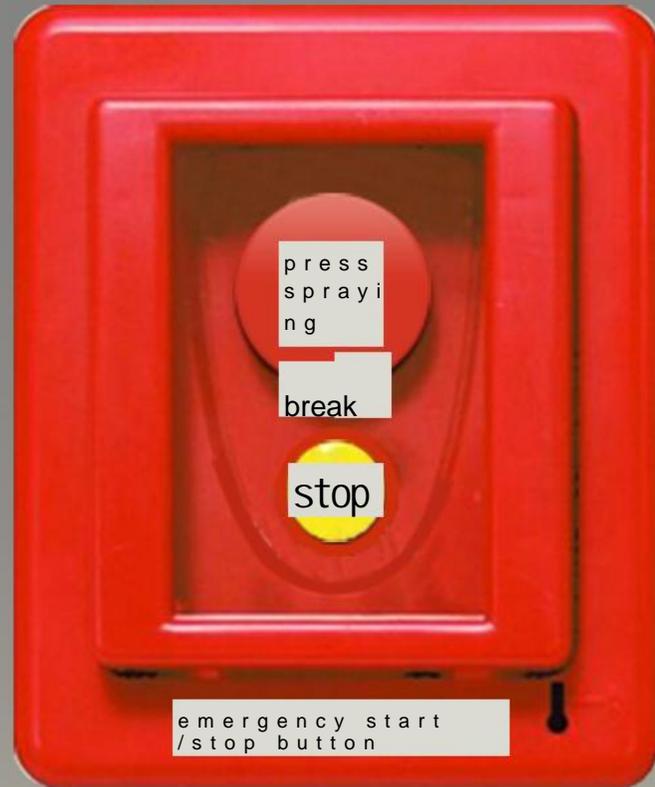
fire detectors

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for some protection areas

manual / automatic switch



**emergency start/
stop button**

[emergency start/stop button](#)



sound/light alarm

sound/light alarm

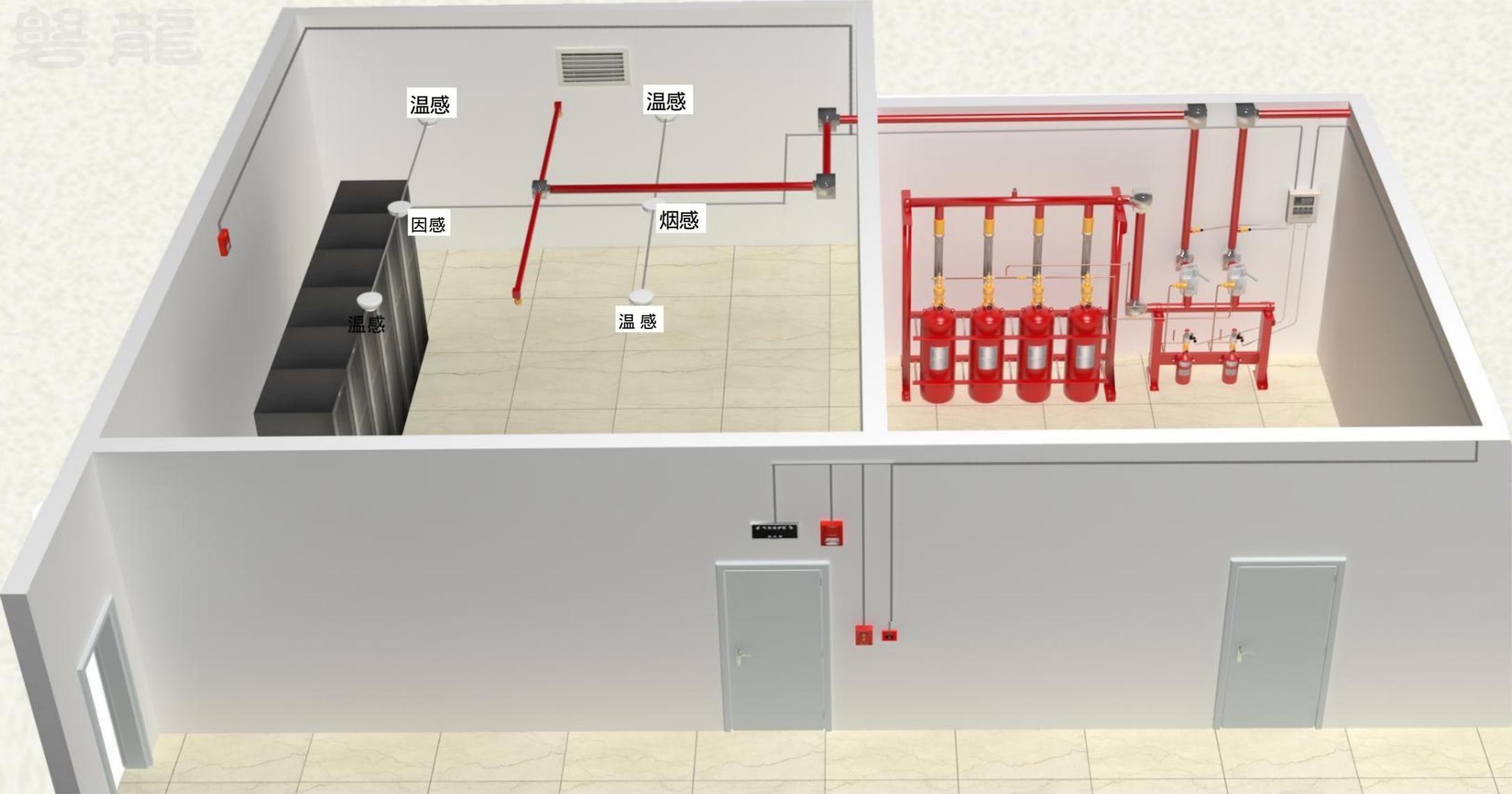
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gas spraying indicator light

gas spraying indicator light





Generally, smoke detectors and heat detector are used



Manual alarm button

Manual alarm button can also be used in special cases



manual button



flame detector



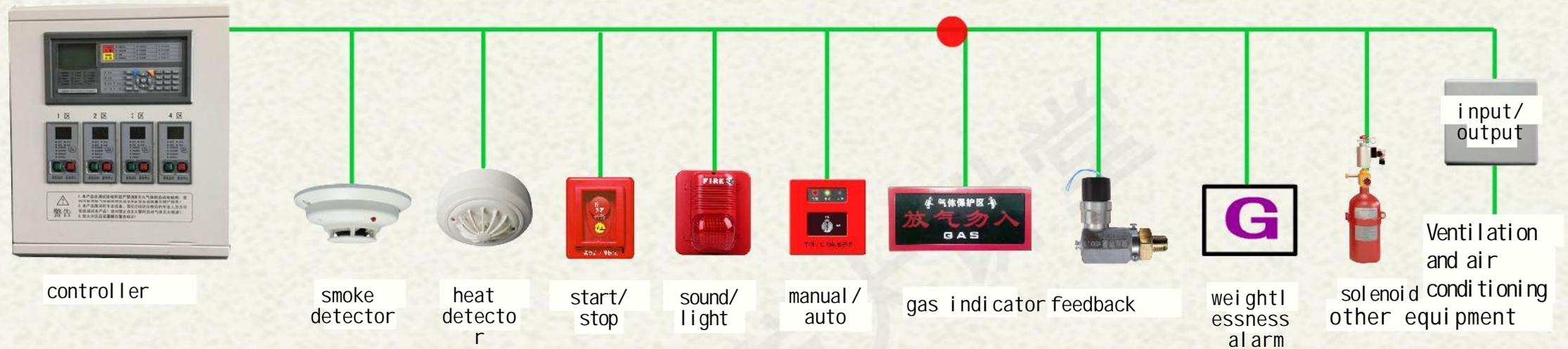
smoke beam



temperature

Or other types of fire detectors

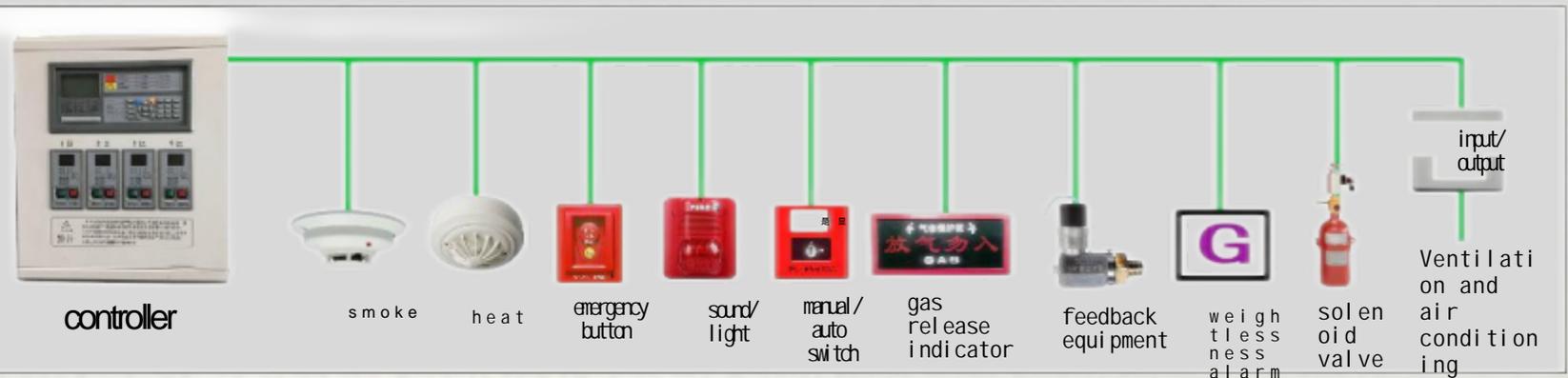
Gas extinguishing controller linkages control gas fire extinguishing equipment, linkage control fan, Air valve fire valve, Ventilation and air conditioning, Automatic doors and Windows and other equipment.



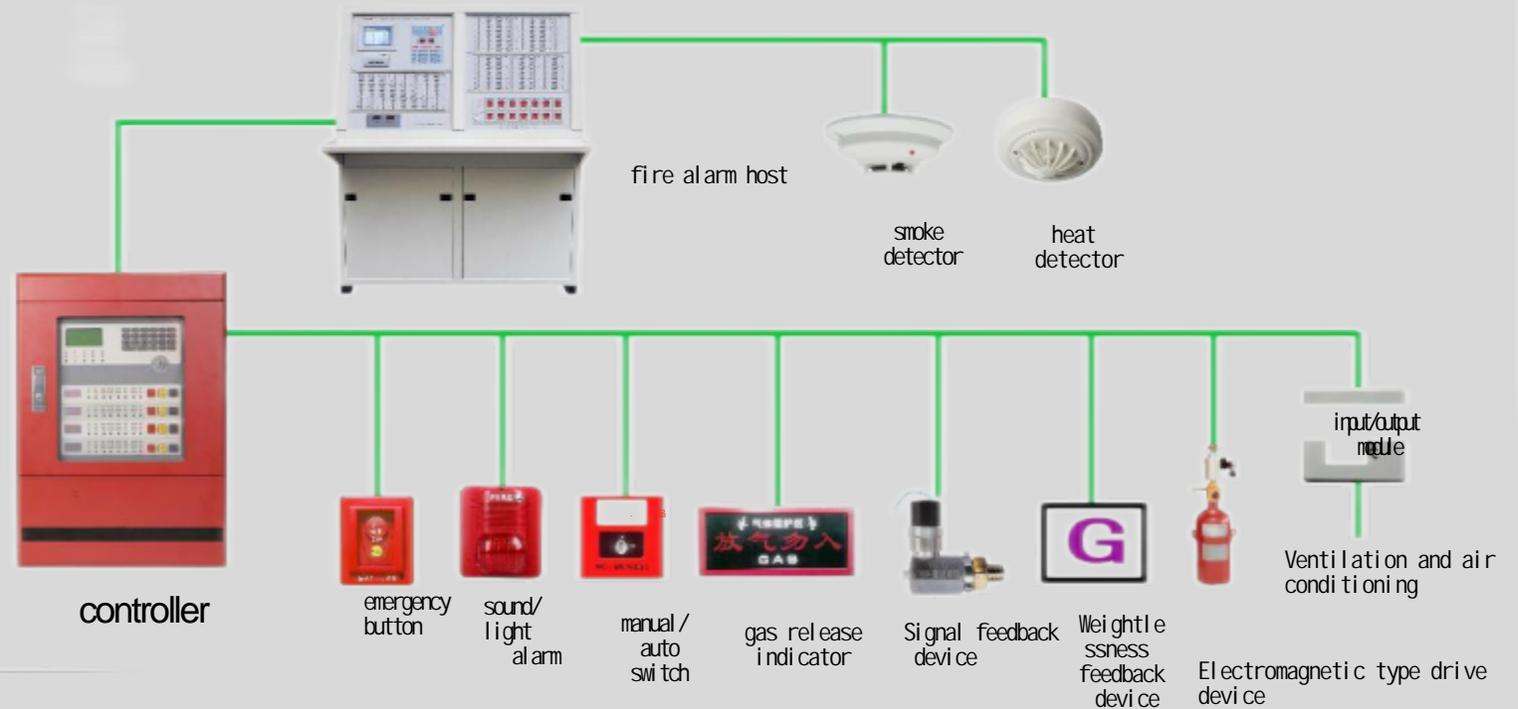
Linkage control gas fire extinguishing equipment And receive feedback signals

There are two main types of gas extinguishing systems

Gas extinguishing controller with fire detection and alarm function



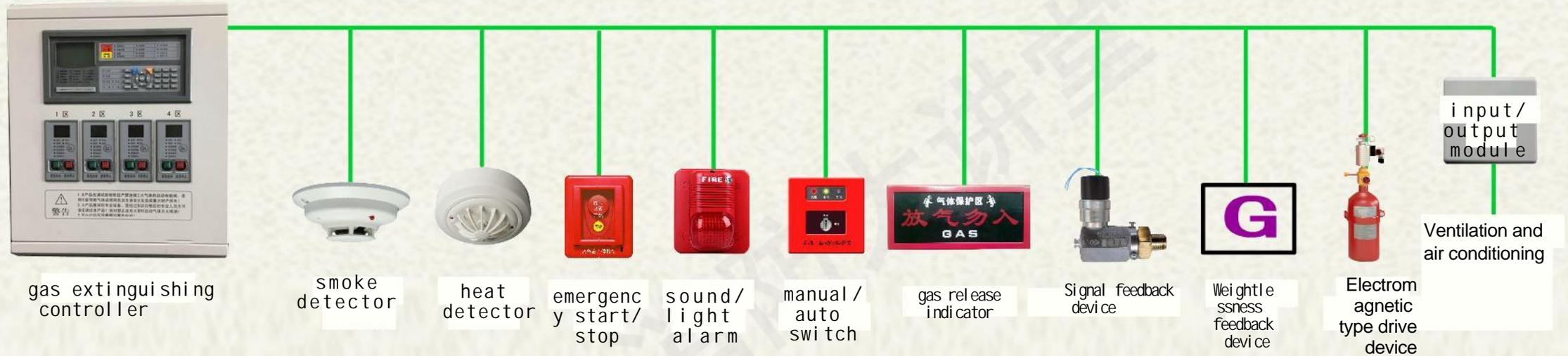
Gas extinguishing controller without fire detection and alarm function



The gas extinguishing system shall be controlled by a dedicated gas extinguishing controller

1. Gas fire extinguishing controller with fire detection and alarm function:

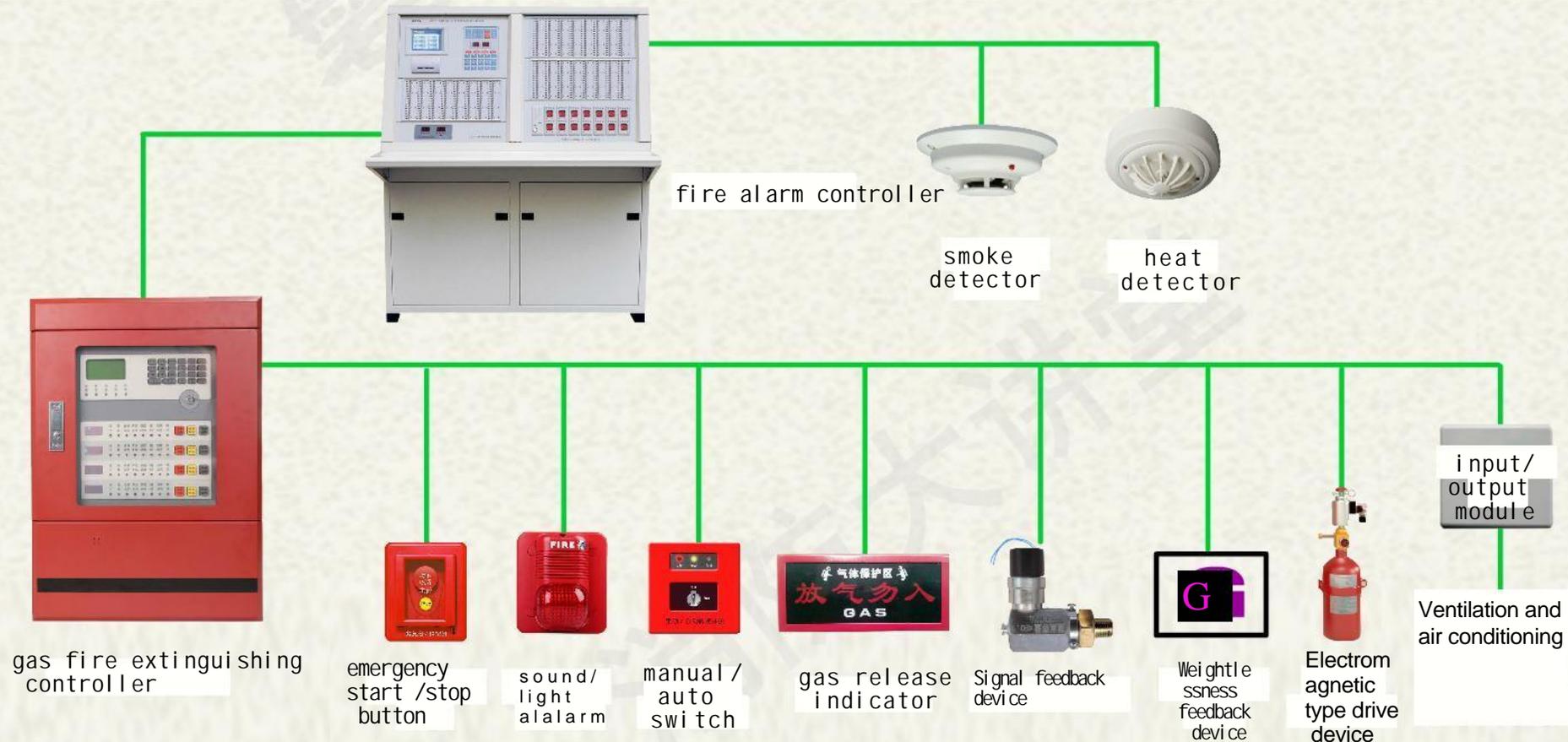
This controller can be connected with fire detector and various linkage control modules, with automatic fire alarm and gas fire control functions, can constitute an independent system. In case of fire, the gas fire extinguishing controller receives the fire alarm signal from the fire detector or the manual alarm button and sends out the linkage control command to realize the gas fire extinguishing control function.



The gas fire extinguishing controller with fire detection and alarm function can be connected to fire detectors and various linkage control modules

2. Gas fire extinguishing controller without fire detection and alarm function:

This controller has only a single gas fire control function and must be used in conjunction with the fire alarm controller. The fire detector is connected to the fire alarm controller. When a fire occurs, the fire alarm controller will receive the fire alarm signal from the fire detector or manual alarm button and issue instructions to the gas fire extinguishing controller. Then the gas fire extinguishing controller will linkage control related components to realize the gas fire extinguishing control function.



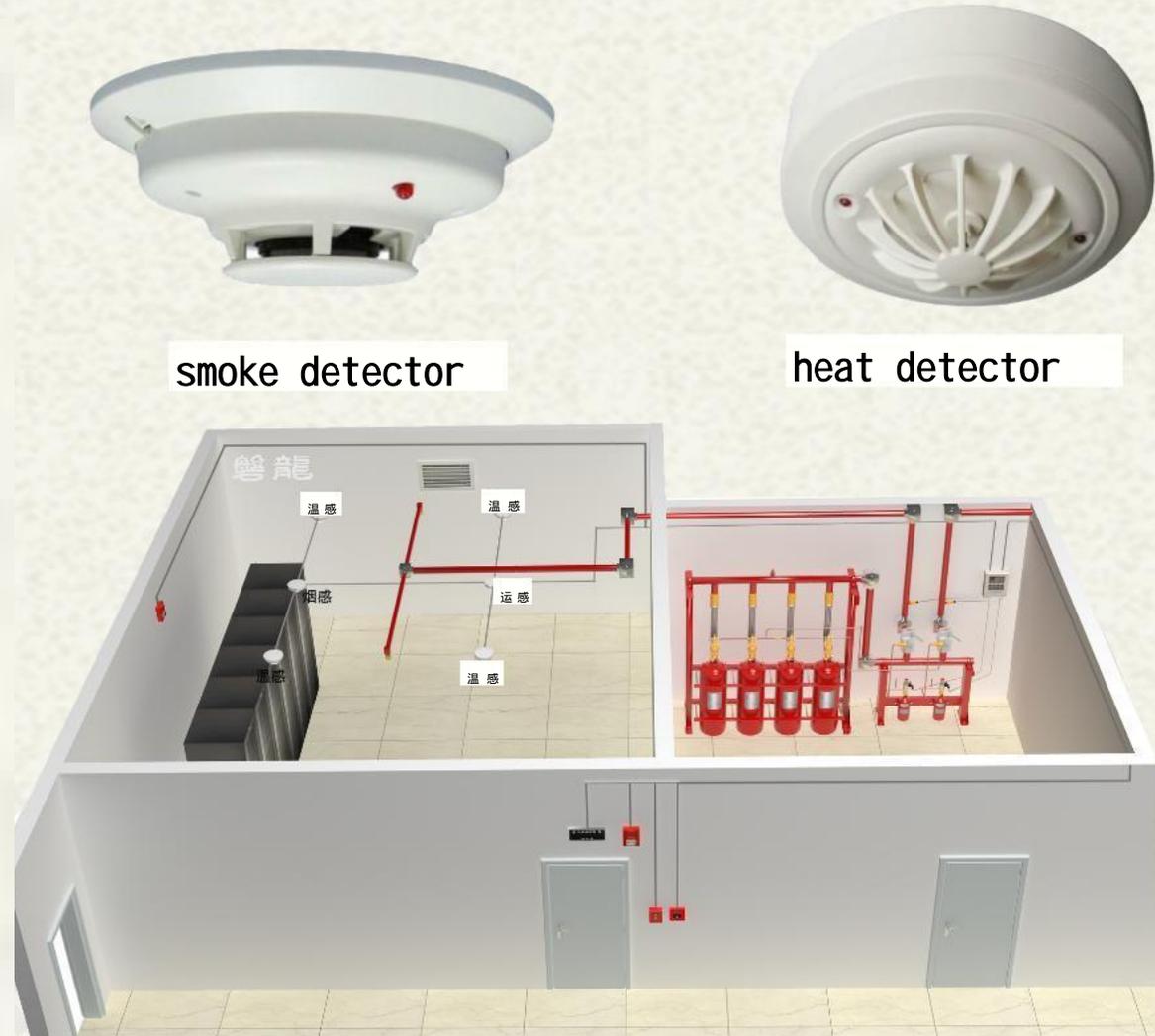
The gas fire extinguishing controller without fire detection and alarm function has only a single gas fire control function.

Selection of fire detectors

Fire detectors with high sensitivity should be selected in the protection area to alarm and extinguish fire as early as possible.

Two different types of fire detectors should be used in the protected area, usually smoke fire detectors and heat fire detectors. Special places can also use other types of fire detectors or manual alarm buttons. All kinds of detectors should be calculated according to the specification requirements of the protection area, cross layout.

For other types of fire detectors that only output switching signals, the alarm loop can be connected through the relay module.



Fire detectors with high sensitivity should be selected in the protection area to alarm and extinguish fire as early as possible.

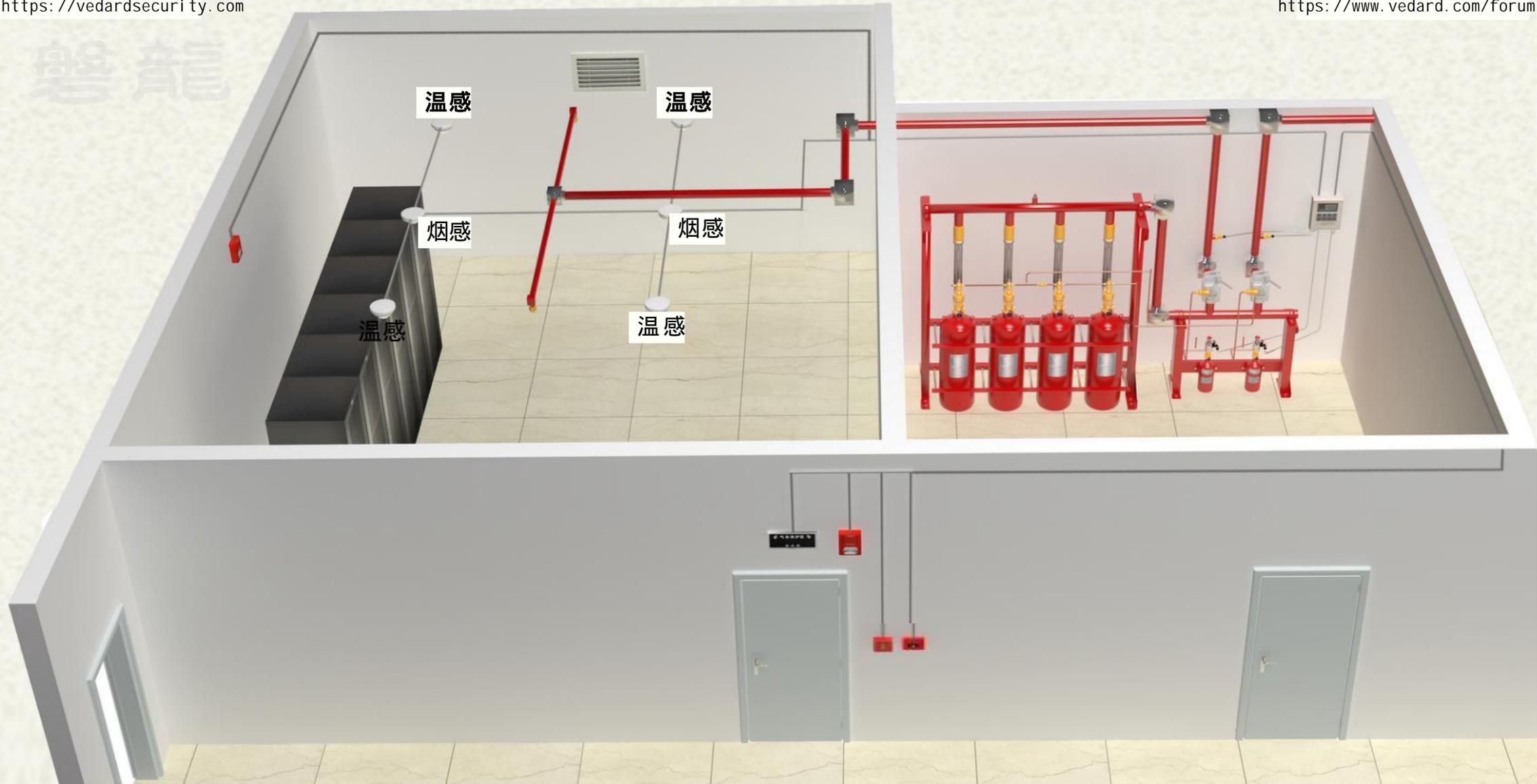
Fire detectors with high sensitivity should be selected in the protection area to alarm and extinguish fire as early as possible.

Two different types of fire detectors should be used in the protection area, usually smoke detector and heat detector. Other types of fire detectors or manual alarm buttons can also be used in special places. The protection area of all kinds of detectors should be calculated according to the specifications and arranged in a cross way. For other types of fire detectors that only output switching signals, the alarm loop can be connected through the relay module.

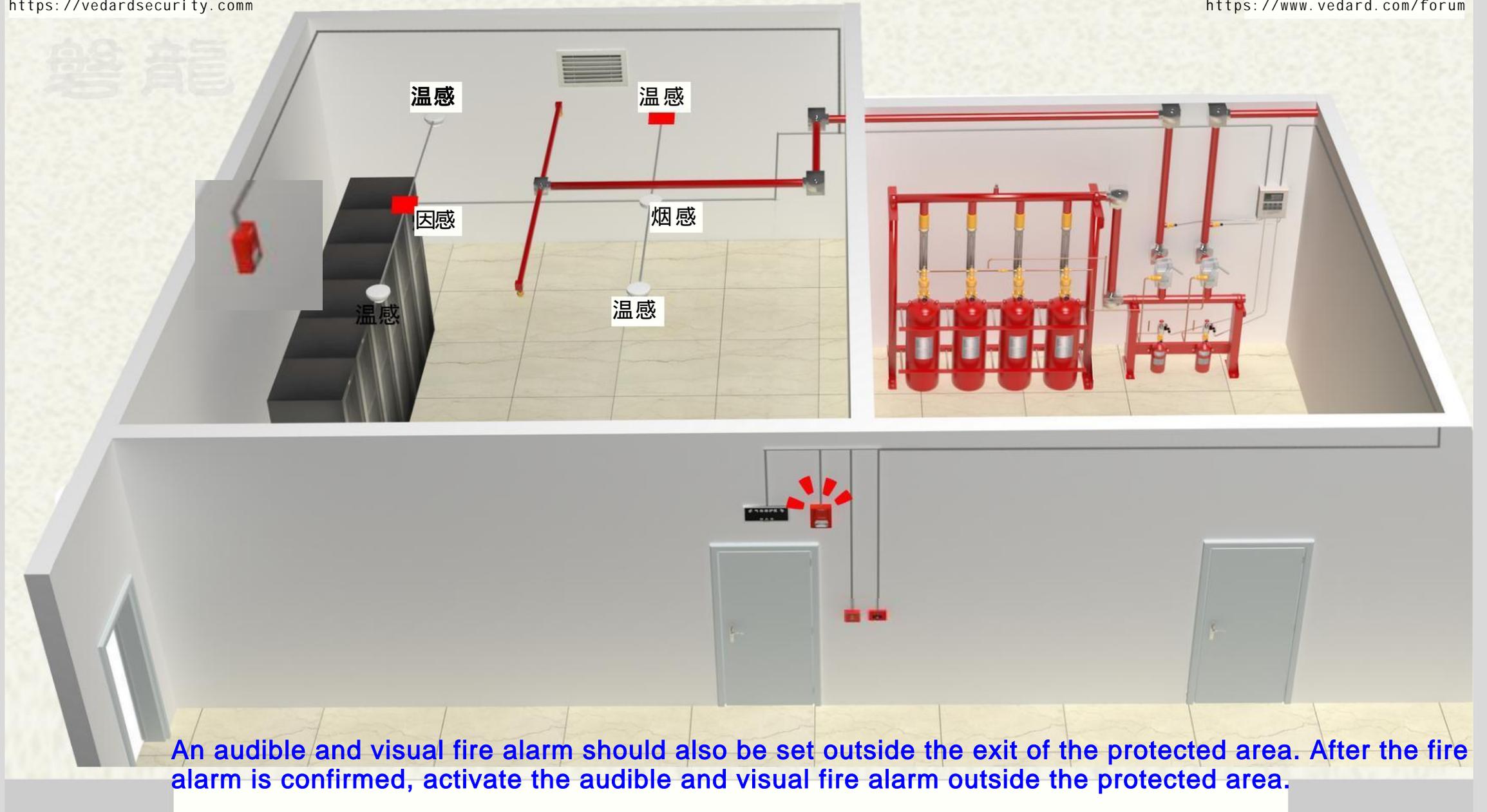


Special places can also use other types of fire detectors or manual alarm button, cross layout

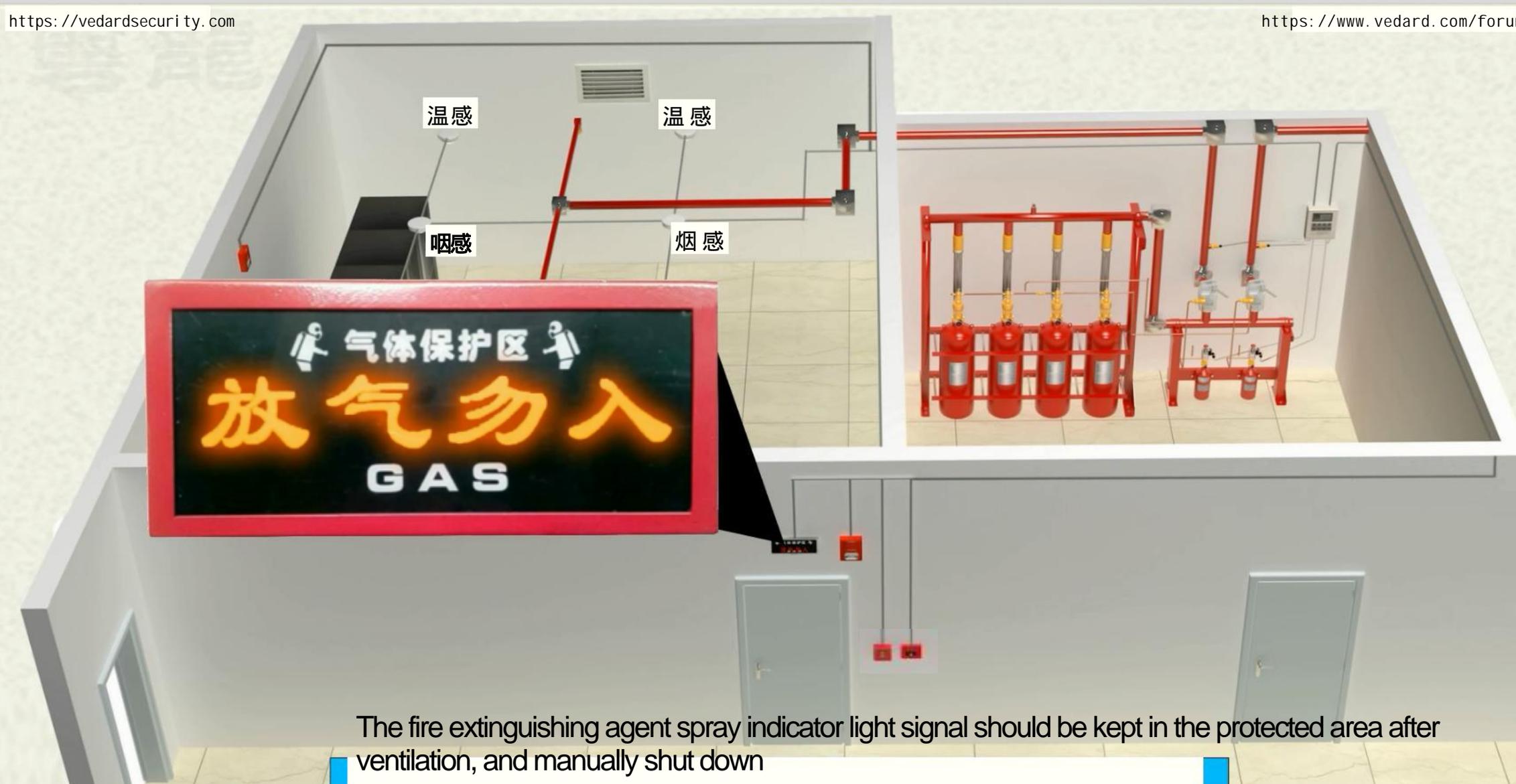
磐龍



An audible and visual fire alarm should be set inside the protected area. Upon receiving the first fire alarm signal, start the audible and visual fire alarm inside the protected area to warn personnel to evacuate.



An audible and visual fire alarm should also be set outside the exit of the protected area. After the fire alarm is confirmed, activate the audible and visual fire alarm outside the protected area.

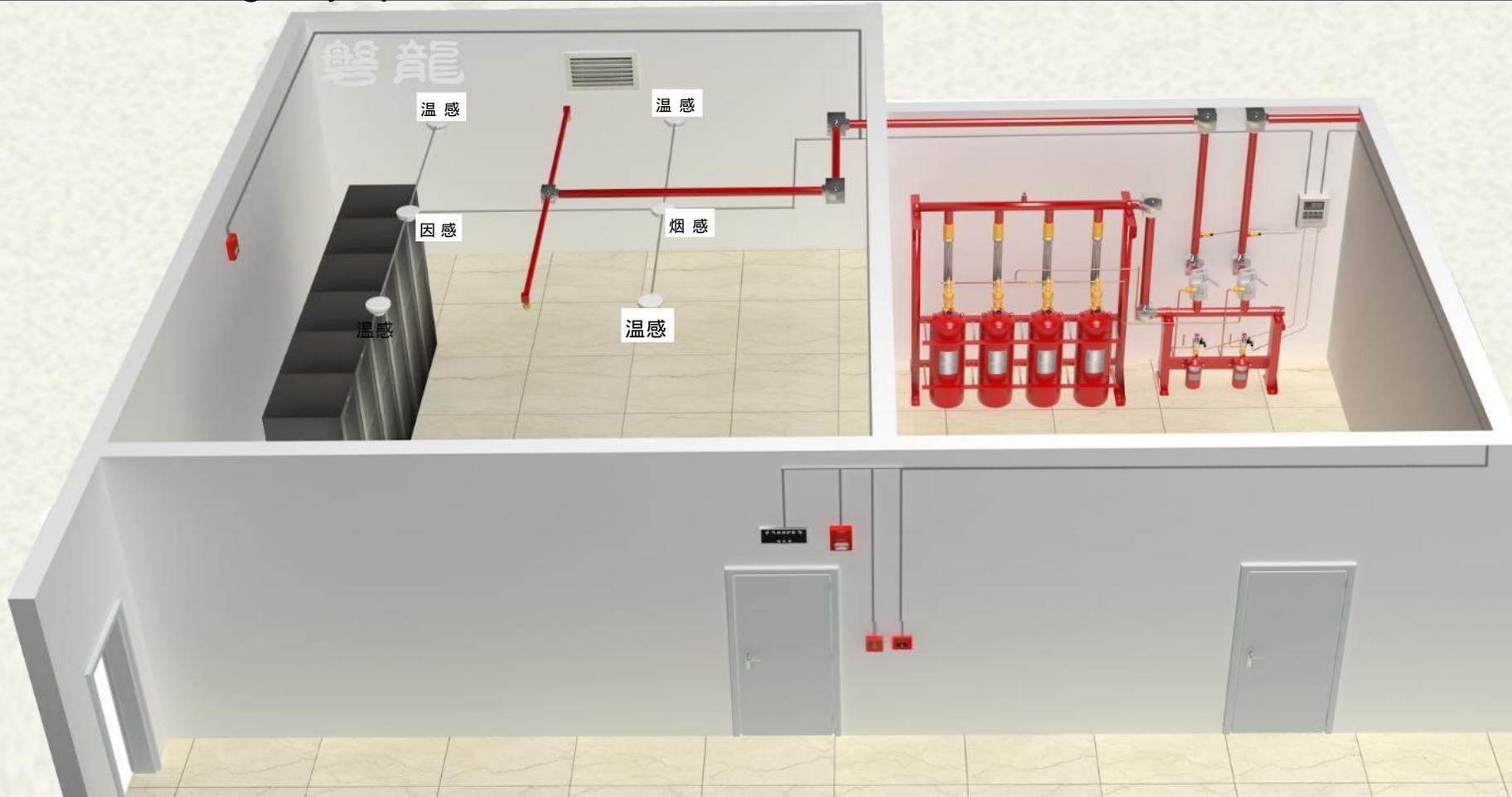


The fire extinguishing agent spray indicator light signal should be kept in the protected area after ventilation, and manually shut down

The upper part of the outlet of the protection zone shall be set with the exhaust indicator light. The gas extinguishing controller shall start the exhaust indicator light after receiving the feedback signal of the signal feedback device to warn personnel not to enter.

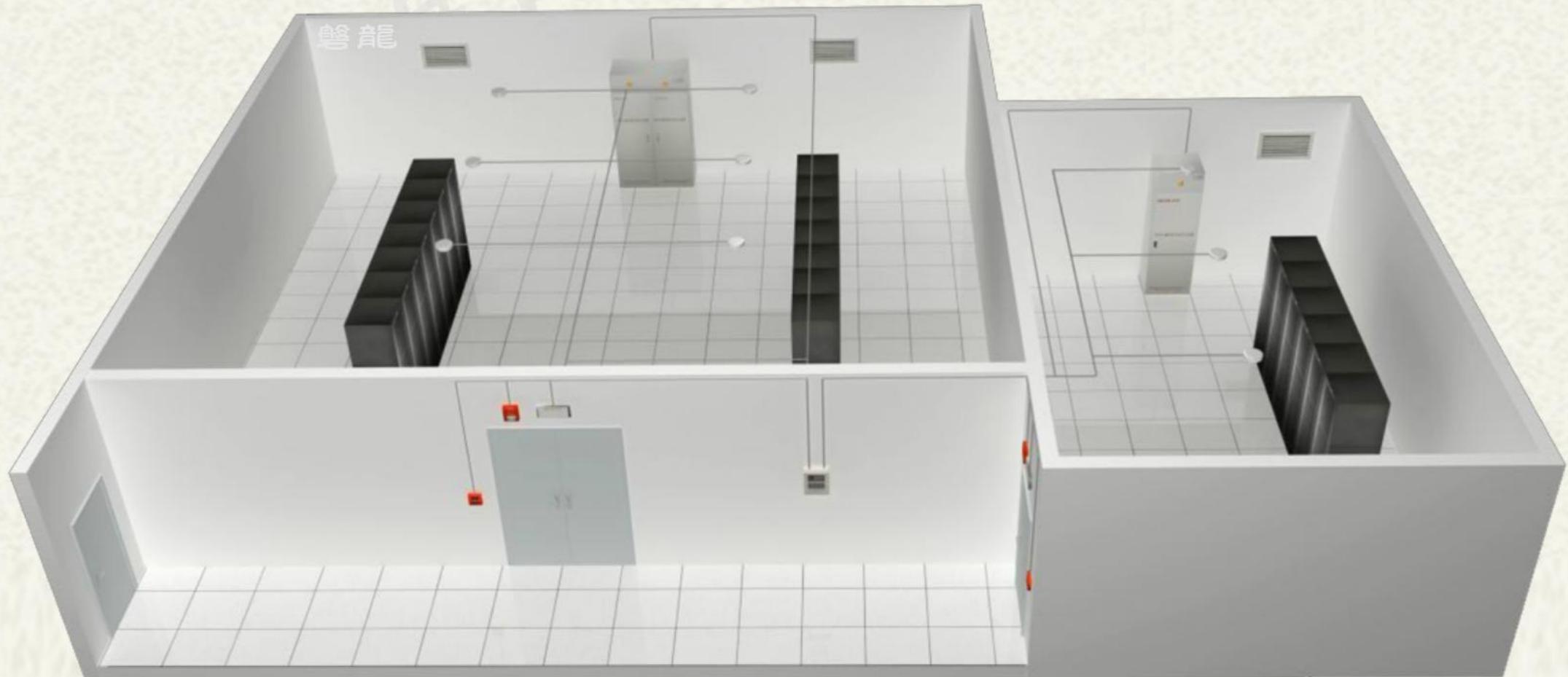
Start mode of gas fire extinguishing

The pipe network gas extinguishing system has three starting modes: automatic control, manual control and mechanical emergency operation.



The pipe network gas extinguishing system has three starting modes: automatic control, manual control and mechanical emergency operation.

The fire extinguishing device of the prefabricated gas fire extinguishing system is set in the protection zone, and personnel must be evacuated in case of fire. Therefore, the prefabricated gas fire extinguishing system (fire extinguishing system without pipe network) has only two starting modes: automatic control and manual control



The fire extinguishing device of the prefabricated gas fire extinguishing system is set in the protection zone. In case of fire, personnel must evacuate.

In the state of automatic control, there are generally two ways to control gas fire extinguishing:

A:

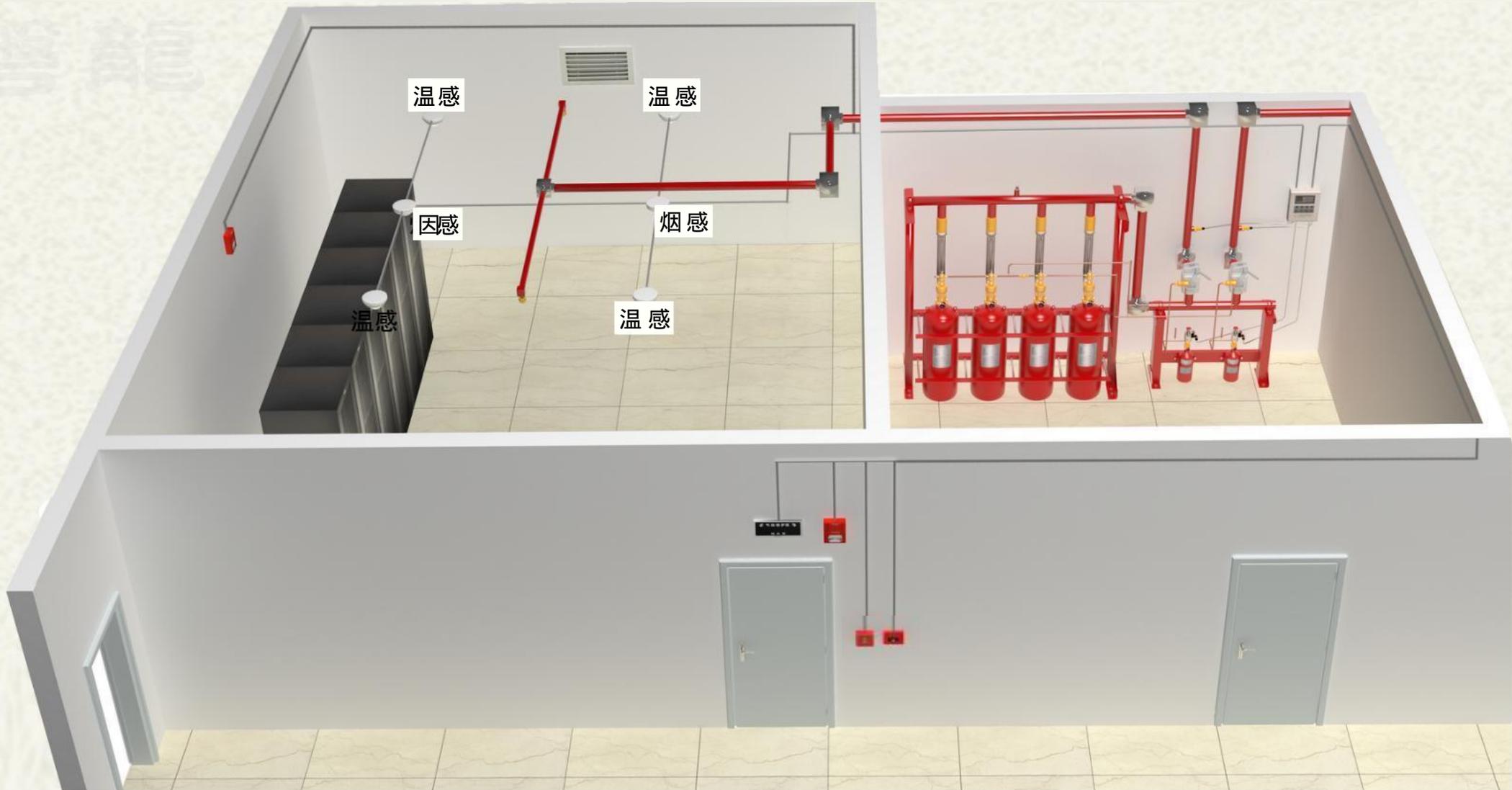
Smoke and heat compound alarm linkage

B:

two separate fire alarms linkage

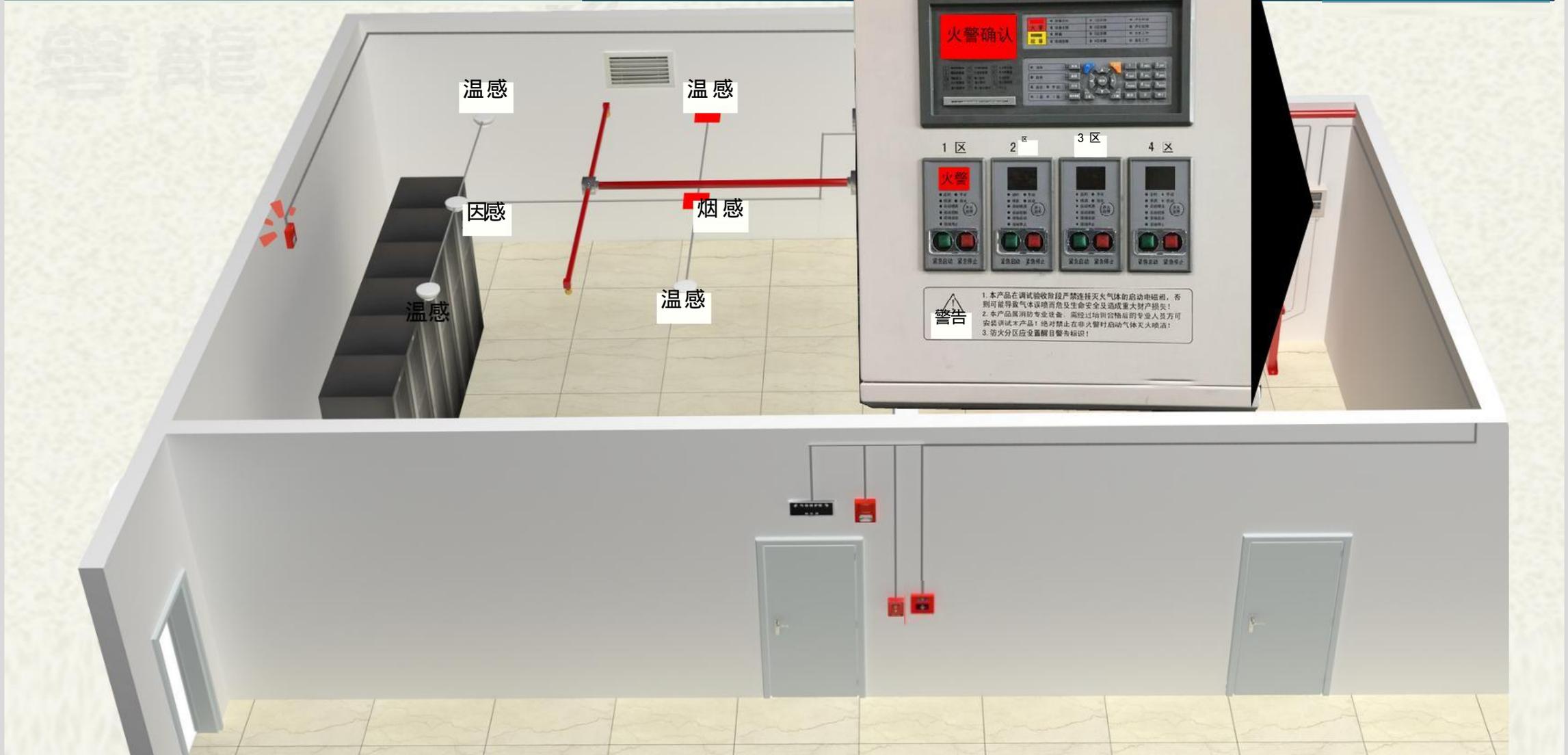


Method A: smoke and heat compound alarm linkage



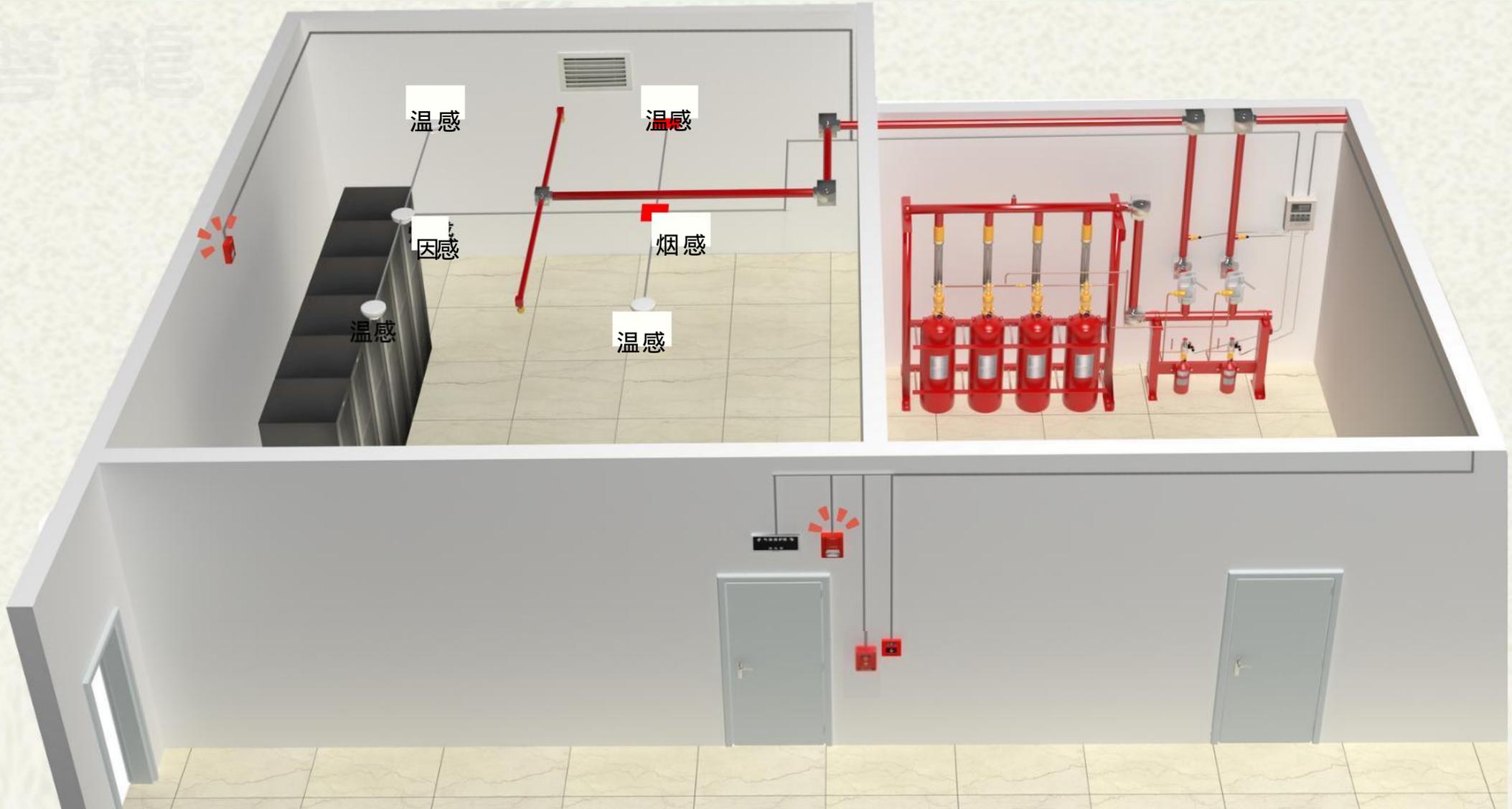
This is the most commonly used control method. In the gas fire protection area, smoke fire detectors and heat fire detectors are generally arranged.

Method A: smoke and heat compound alarm linkage

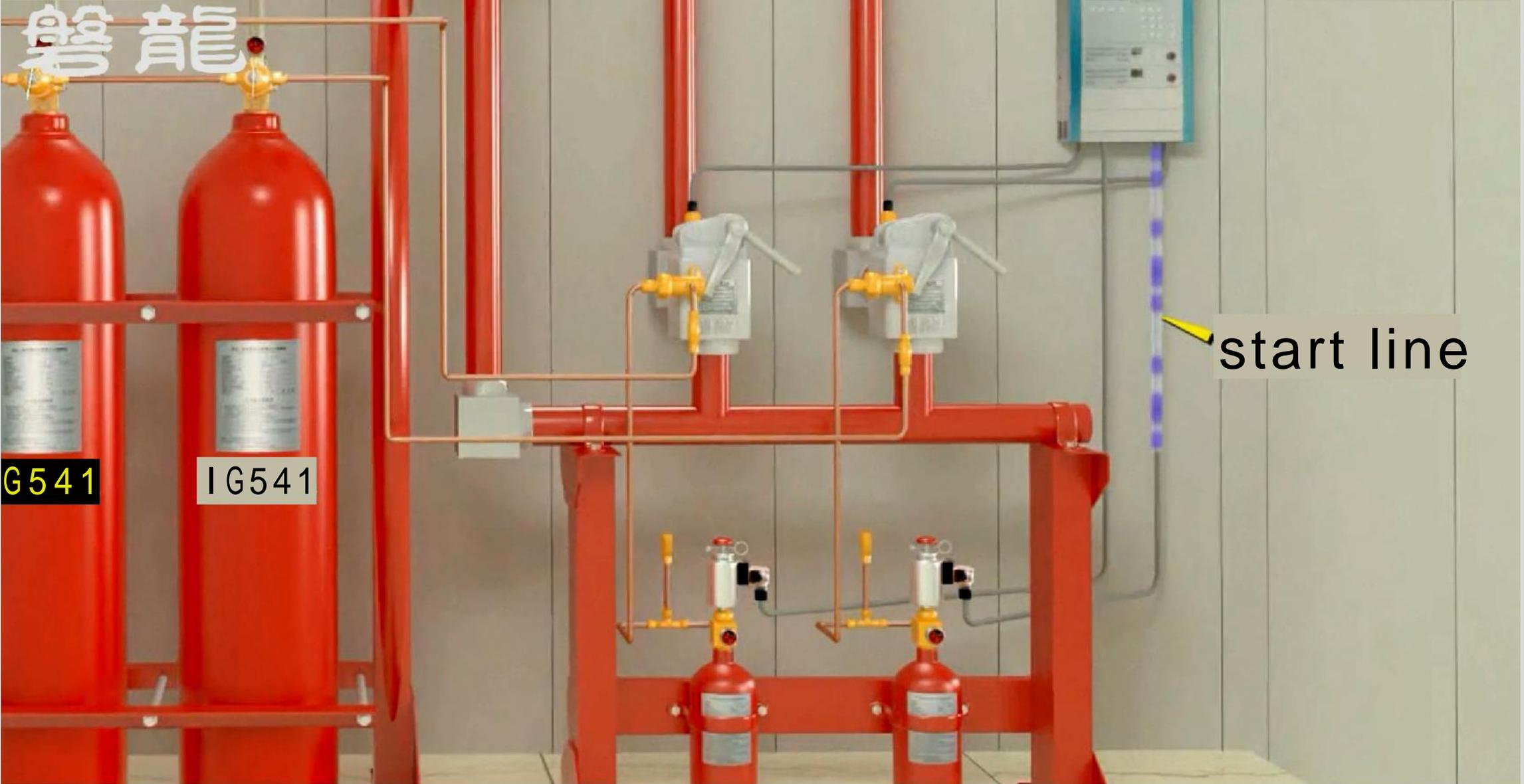


When one detector gives an alarm, the sound and light fire alarm in the protection area is activated. When a different type of fire detector gives an alarm, the fire information is confirmed.

Method A: smoke and heat compound alarm linkage



Start the fire sound and light alarm outside the protection zone, and send out the linkage control signal at the same time. After a delay of 0 to 30s, send out the fire extinguishing start command and start the fire extinguishing device.



G541

IG541

start line

Start the fire sound and light alarm outside the protection zone, and send out the linkage control signal at the same time. After a delay of 0 to 30s, send out the fire extinguishing start command and start the fire extinguishing device.

In some special places, other types of fire detectors may be required, and manual alarm buttons may also be arranged. At this time, different detectors can be classified and linked by referring to the above smoke heat compound.



紫外火灾探测器



红外火灾探测器



感温电缆



手动报警按钮

In some special places, other types of fire detectors may be required, and manual alarm buttons may also be deployed.

Method B: Linkage of two independent fire alarm signals

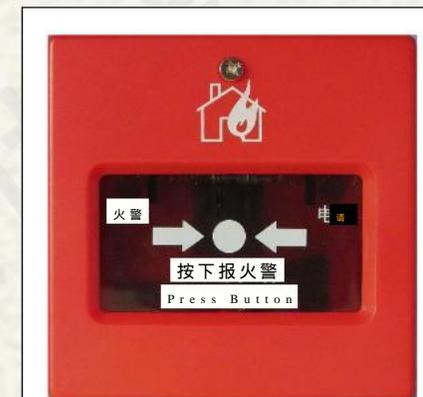
In some special cases, it may be confirmed by the alarm signals of two separate fire detectors, or by the alarm signals of one fire detector and one manual alarm button. When the first fire alarm signal is issued, start the fire audible and visual alarm in the protection area; when the other fire alarm signal is issued, confirm the fire alarm information, start the fire audible and visual alarm outside the protection area, and issue the linkage control signal at the same time. After a delay of 0 to 30s, the fire extinguishing start command will be issued to start the fire extinguishing device.



火灾探测器 (感烟)

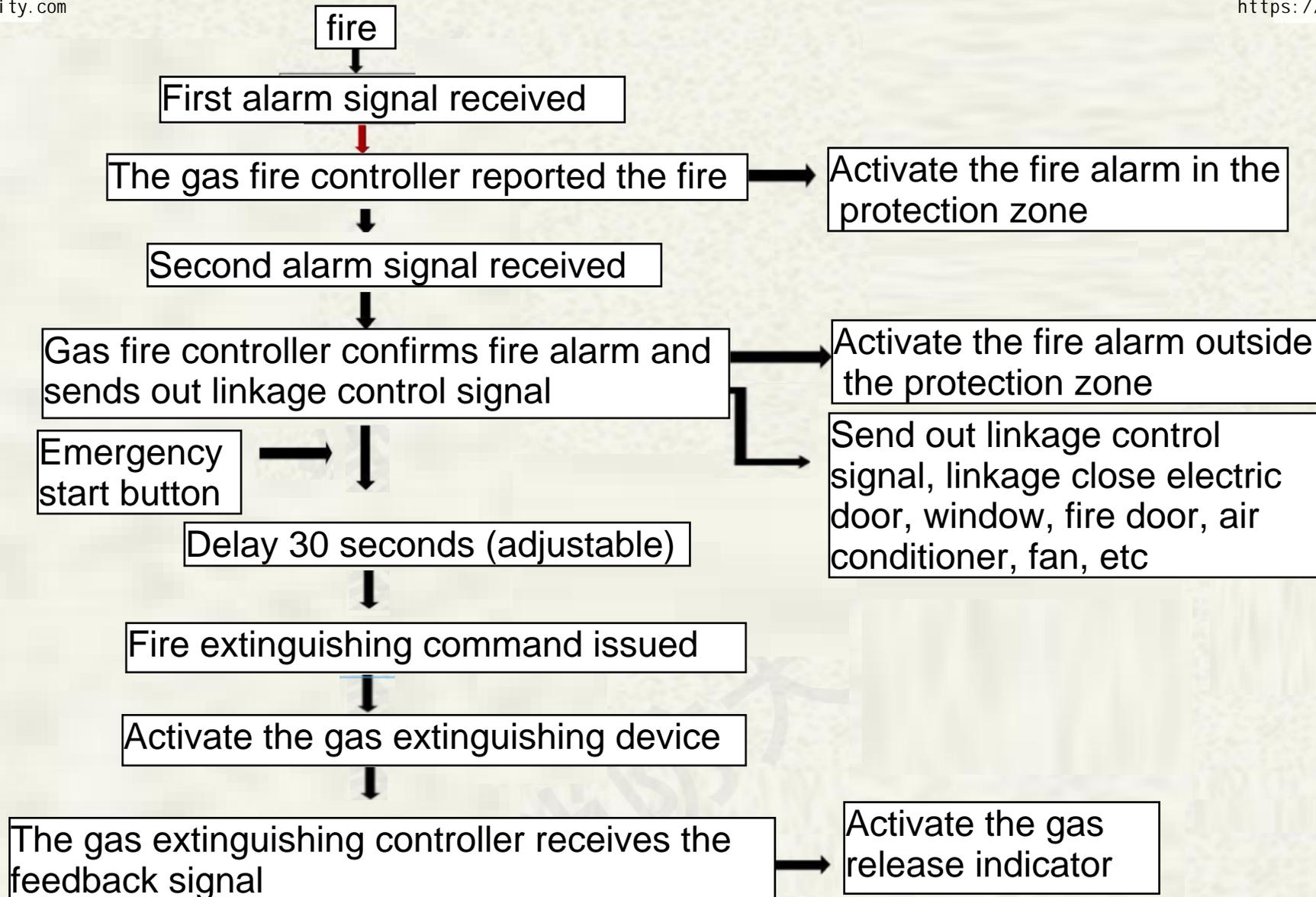


火灾探测器 (感温)



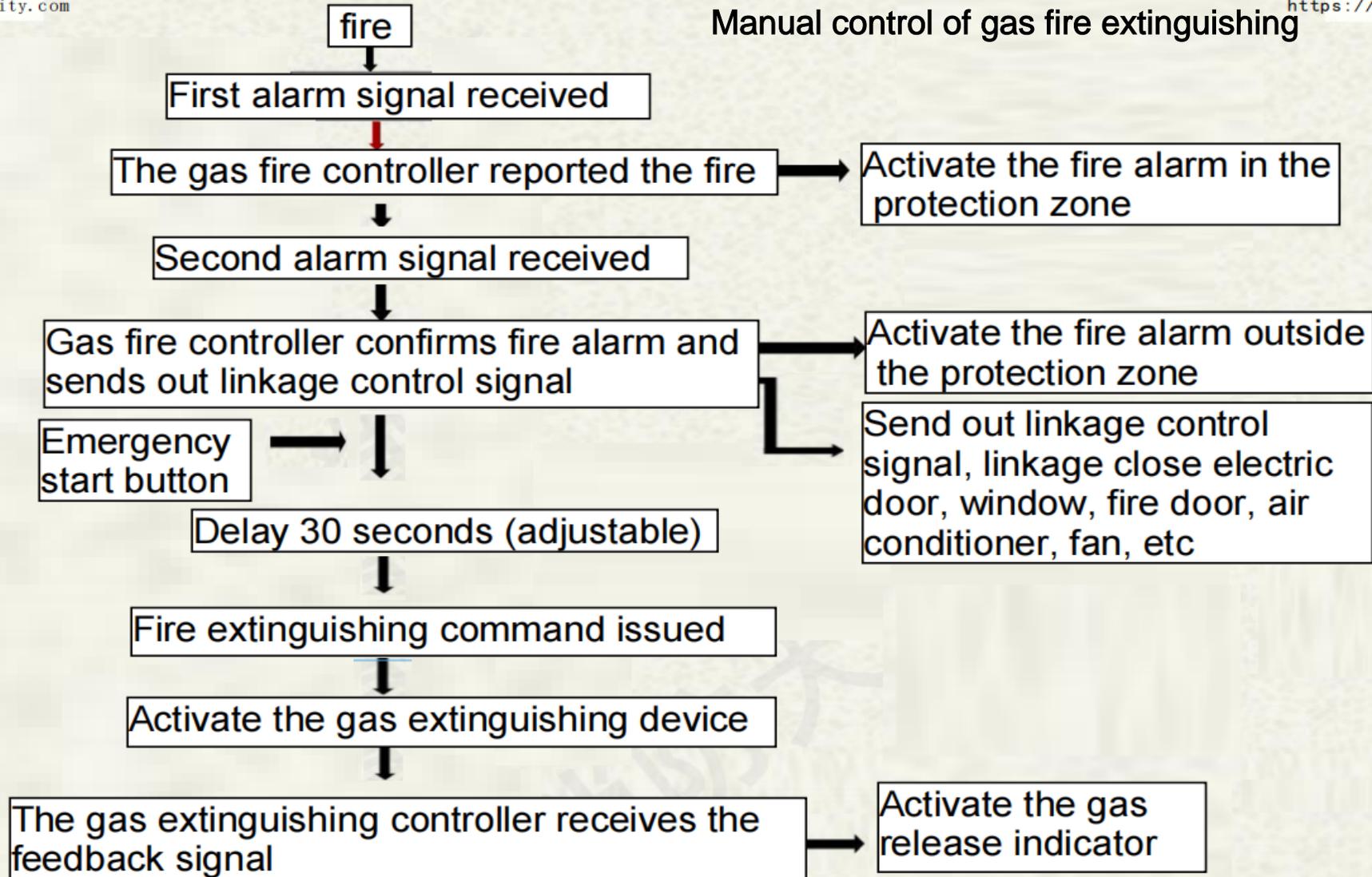
手动报警按钮

In some special cases, the alarm signal of two separate fire detectors may also confirm the fire alarm

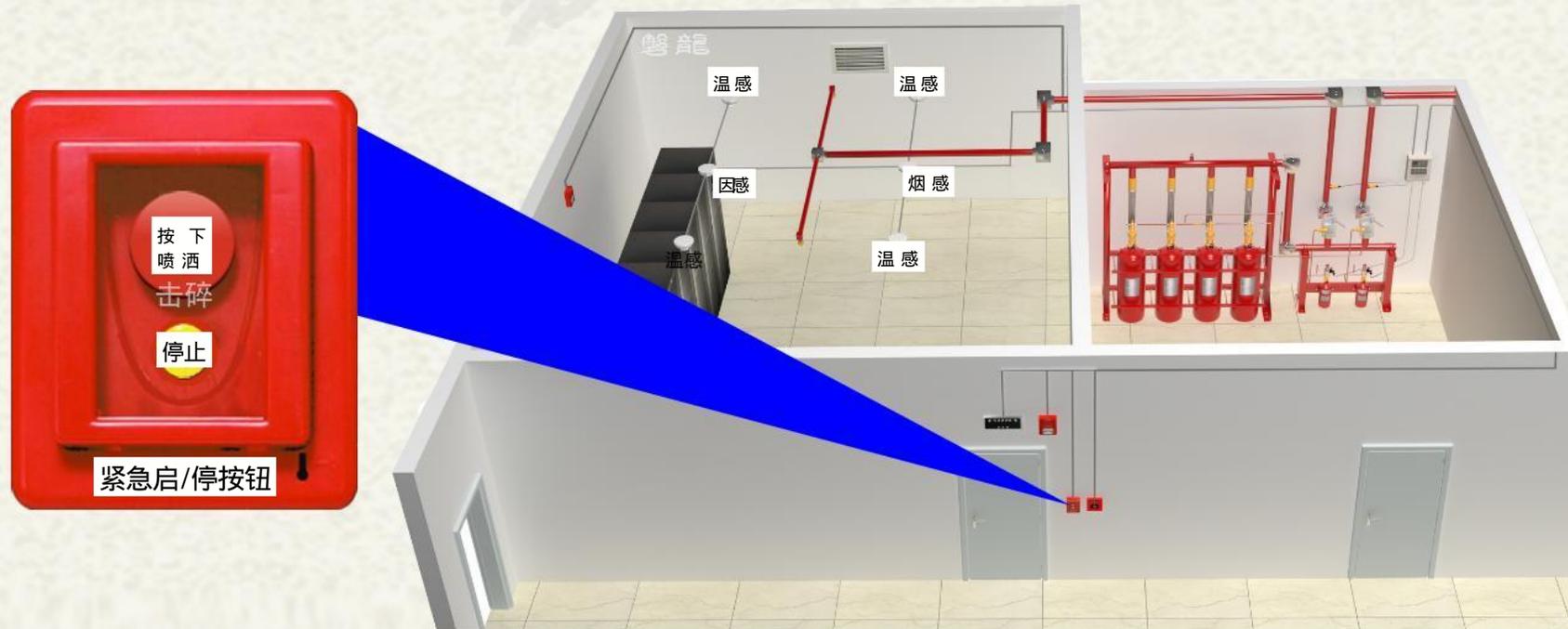


When the first fire alarm signal is issued, activate the fire audible and visual alarm in the protection area. When another fire alarm signal is issued, confirm the fire information.

Manual control of gas fire extinguishing



The manual control is controlled by the emergency start-stop button. The exit of the protection zone must be installed with the emergency start-stop button (the installation height is 1.5m from the ground). There is also an emergency start-stop button on the control panel of the gas extinguishing controller.



Manual control is controlled by the emergency start-stop button, which must be installed at the exit of the protection zone. There is also an emergency start-stop button on the control panel of the gas extinguishing controller.

Manual control is controlled by emergency start-stop button. Emergency start-stop button must be installed at the exit of the protection zone (installation height is 1.5m from the ground). Emergency start-stop button must also be installed on the control panel of the gas extinguishing controller.



Manual control is controlled by the emergency start-stop button, which must be installed at the exit of the protection zone. There is also an emergency start-stop button on the control panel of the gas extinguishing controller.

There is emergency start button and an emergency stop button.

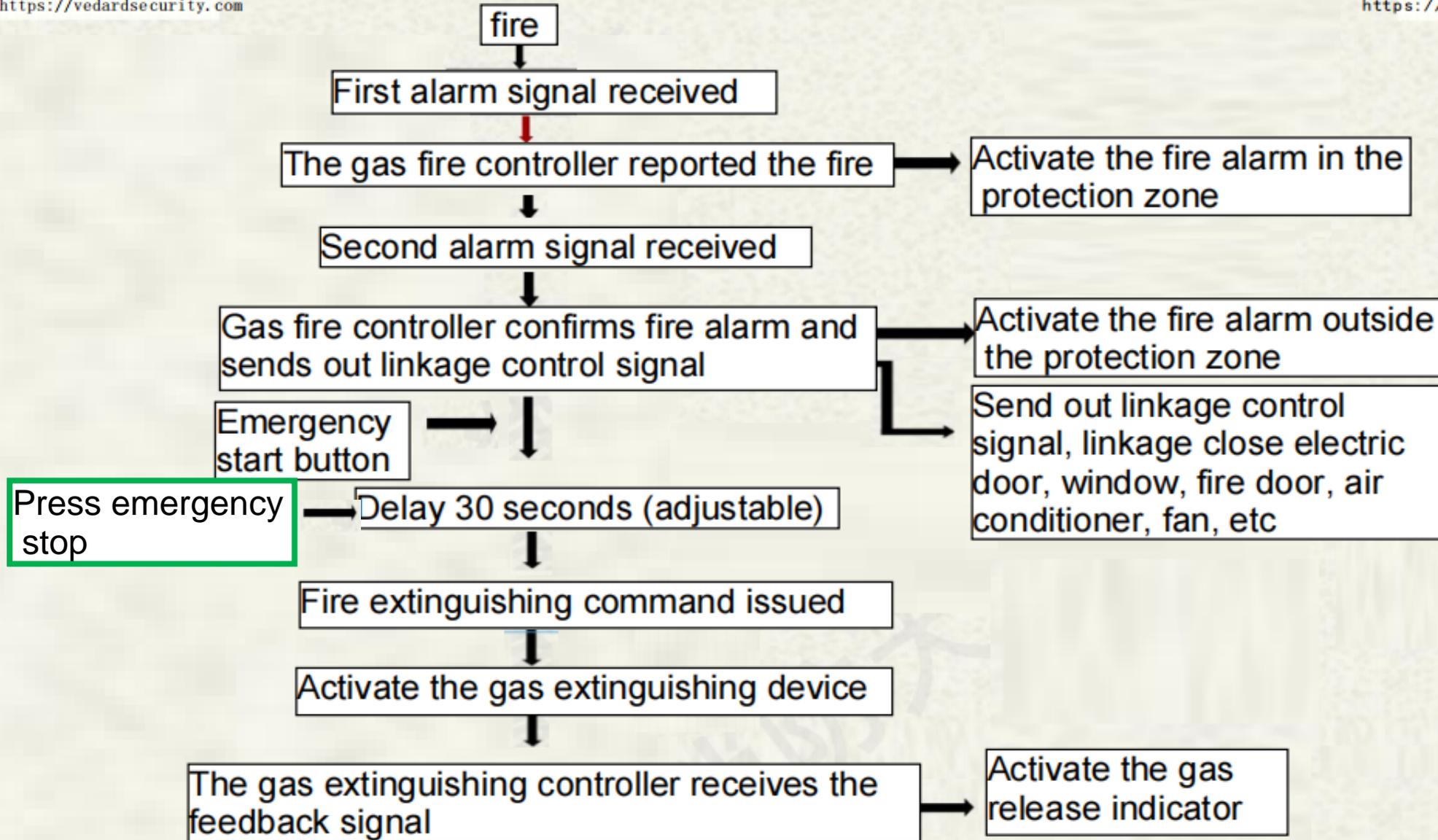


There is an emergency start button and an emergency stop button.

After pressing the emergency start button, the gas fire extinguishing controller will issue a linkage control signal. After a delay of 0 to 30s, the fire extinguishing start command will be issued to start the fire extinguishing device.



After pressing the emergency start button, the gas fire extinguishing controller will issue a linkage control signal. After a delay of 0 to 30s, the fire extinguishing start command will be issued to start the fire extinguishing device.



The emergency stop button has the highest priority. Press the emergency stop button to stop the fire extinguishing process (including the delay stage of 0 to 30 seconds). Also, please note that the fire extinguishing start command is irreversible and the emergency stop button is only effective before the fire extinguishing start command is issued.

The emergency stop button has the highest priority. Press the emergency stop button to stop the fire extinguishing process (including the delay stage of 0 to 30 seconds). Also, please note that the fire extinguishing start command is irreversible and the emergency stop button is only effective before the fire extinguishing start command is issued.

The linkage control signal of gas fire extinguishing shall include the following contents:

Turn off the air supply (exhaust) fan and air supply (exhaust) valve in the protected area;

Stop the ventilation and air conditioning system and close the electric fire valve located in the protected area.

The linkage control starts the opening closure device of the protection area, including closing the door and window of the protection area;

When the automatic control starting mode is adopted, a controllable delay injection of no more than 30s should be provided according to the need of safe evacuation of personnel from the protected area. For the protection area where no one is working, it can be set to spray without delay.

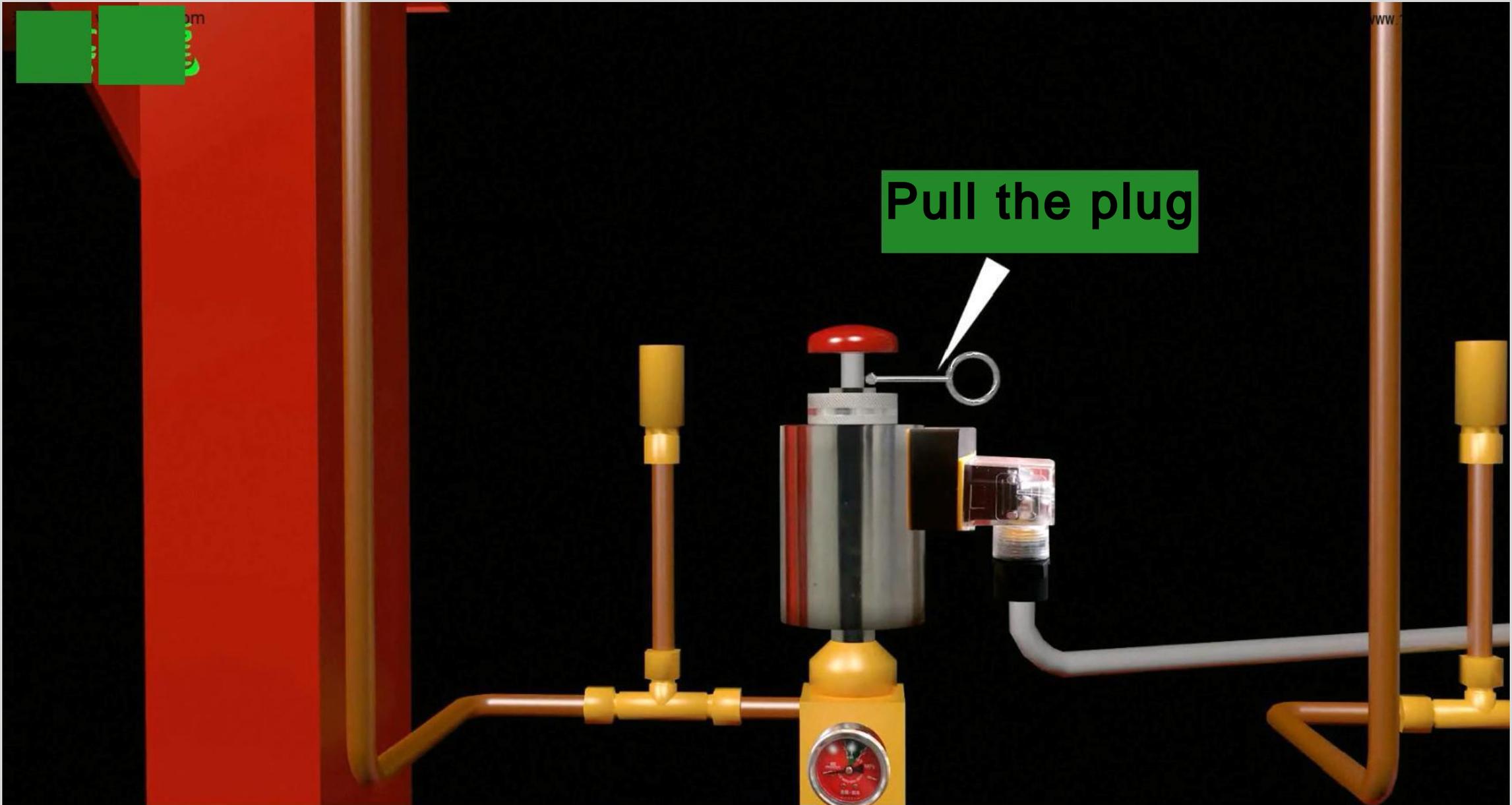
Mechanical emergency operation for gas fire extinguishing

Mechanical emergency operation refers to the manual operation of the electromagnetic drive device that drives the gas cylinder set to extinguish the fire.

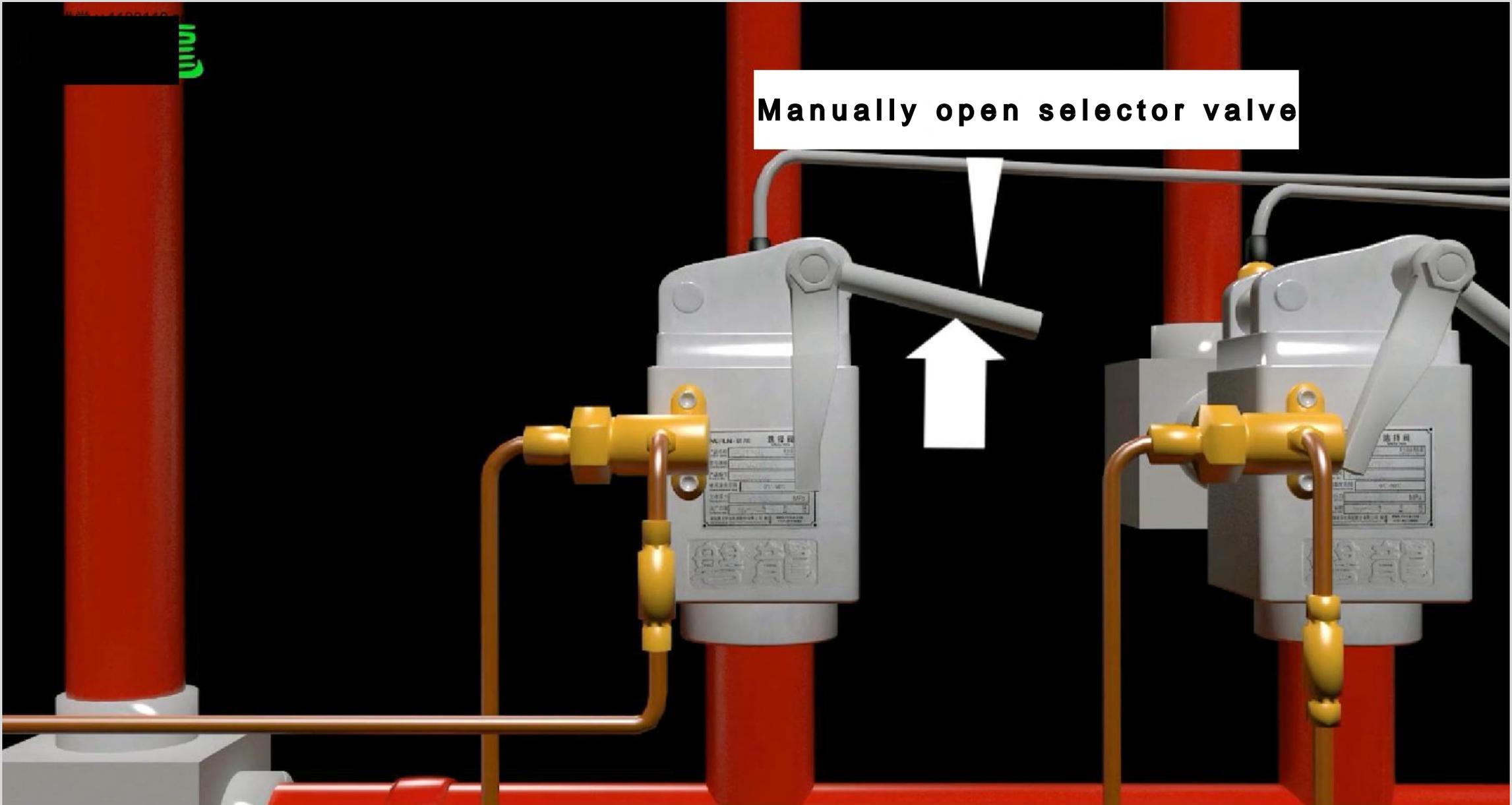
When the automatic and manual system fails and the personnel in the protection zone have been evacuated, you can pull the safety pin of the electromagnetic drive device of the drive gas cylinder group in the corresponding protection zone, and press the start button on the upper part of the electromagnetic drive device to start directly. In the absence of manual failure of the gas drive bottle set or electromagnetic drive device, you can also manually open the selection valve, and then manually open the container valve of the extinguishing agent bottle set to start the fire extinguishing.



Pull the plug



The safety pin of the electromagnetic drive device of the drive gas cylinder group in the corresponding protection zone can be pulled open



Manually open selector valve

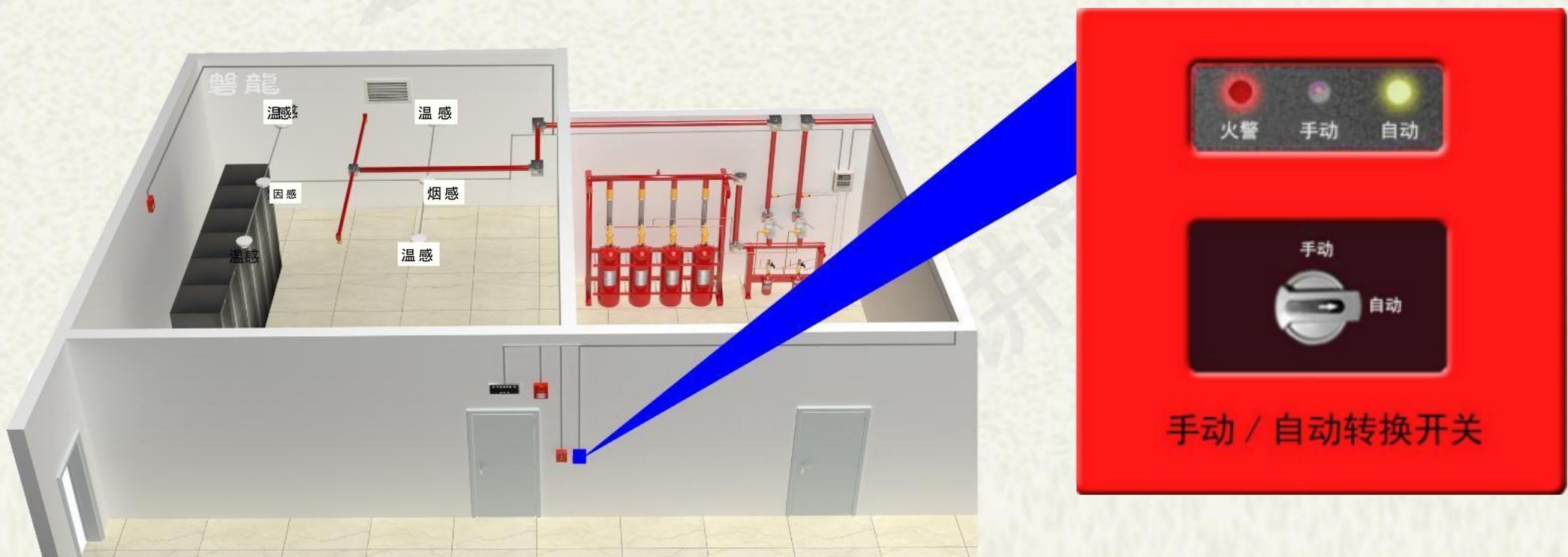
You can also manually open the selection valve, and then manually open the valve of the extinguishing agent bottle group container to start the fire extinguishing.

Conversion between manual control and automatic control

You can switch manual control and automatic control on the gas fire extinguishing control host



Some protection areas [fire extinguishing design concentration or actual use concentration is greater than the NOAEL concentration (NOAEL) protection areas and the use of thermal sol prefabricated fire extinguishing system], there should also be a manual and automatic control of the conversion device outside the protection area (installation height is 1.5m from the ground center).



In some protected areas, manual and automatic control conversion devices should also be provided outside the protected areas.



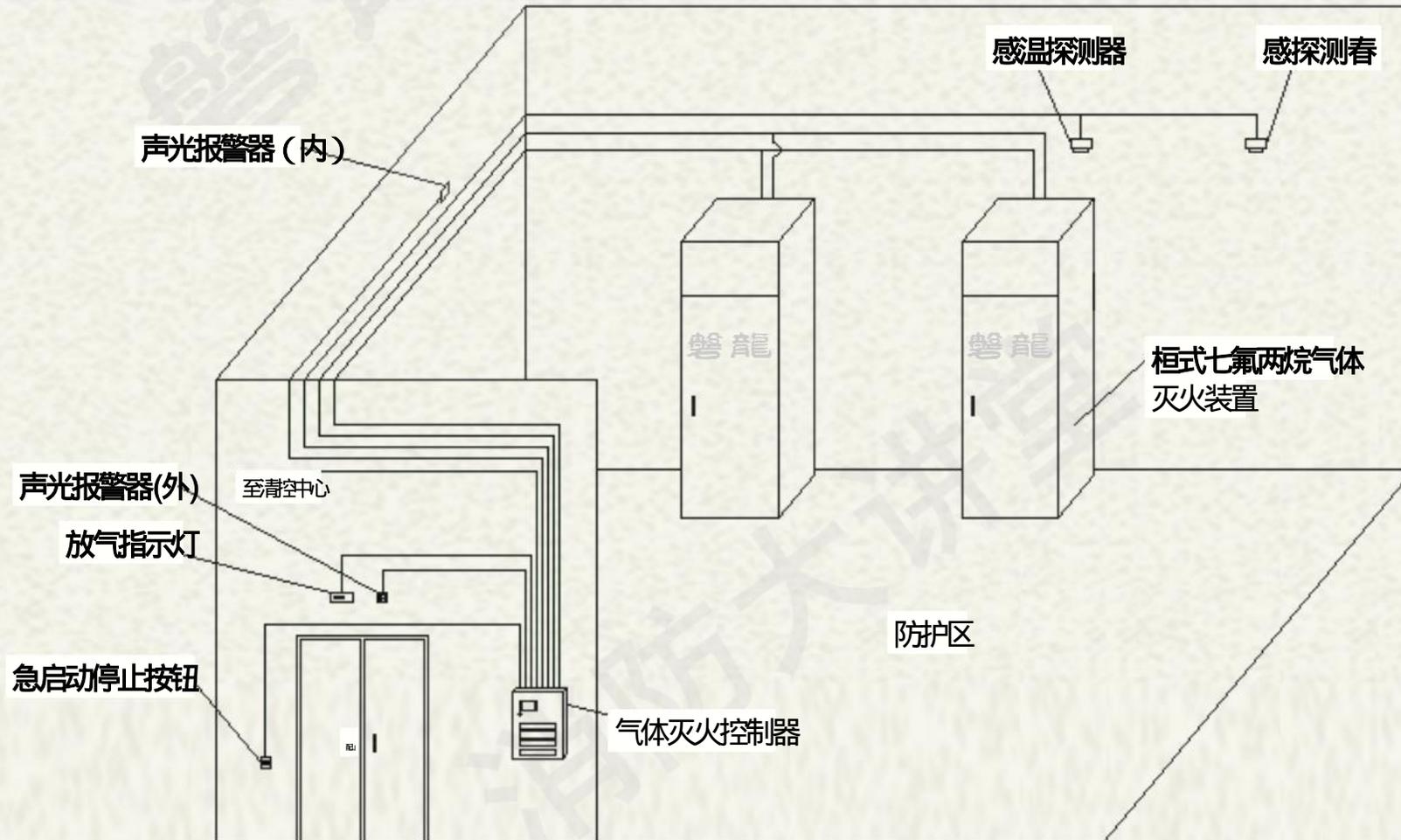
It should be able to revert to automatic control when personnel leave

For safety reasons, manual control is always recommended for manned protected areas



For safety reasons, manual control is always recommended for manned protected areas

If there is more than one prefabricated fire extinguishing device (fire extinguishing device without pipe network) in the same protection zone, it must be able to start at the same time, and the time difference of its action response should not be greater than 2 seconds.



If there is more than one prefabricated fire extinguishing device in the same protection zone, it must be able to start at the same time, and the time difference of its action response should not be greater than 2 seconds

Where there is a fire control room, the relevant information of the fire control system in each protection area shall be transmitted to the fire control room.

Information to be transmitted to the fire control room includes:
Fire information, fire fighting action, manual and automatic conversion and system equipment failure information.



The setting position of the gas extinguishing controller

The gas fire extinguishing controller can be set in the fire control room (suitable for the protection area is not far from the fire control room). For convenient operation, it can also be set up in the duty room of the floor in the protection zone.



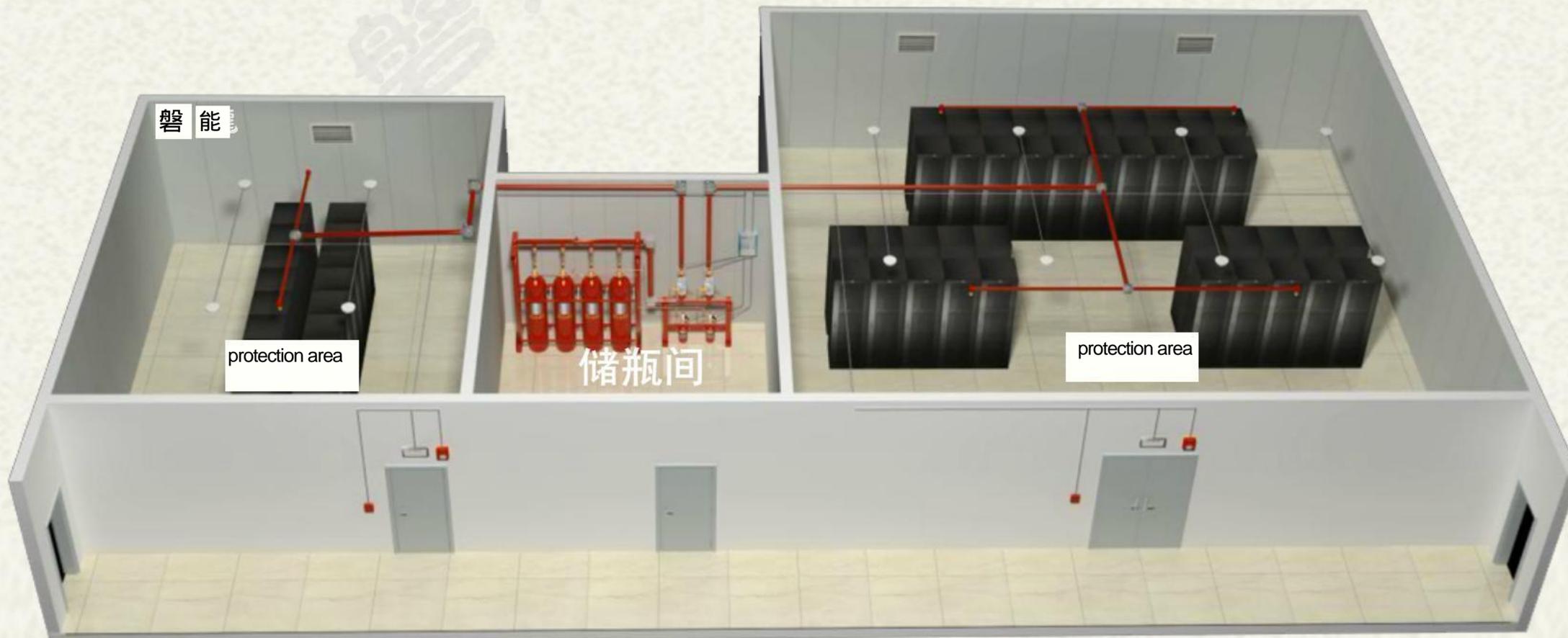
fire control room



Floor duty room

The gas extinguishing controller can be installed in the fire control room

For no duty room with pipe network fire extinguishing system, You can consider setting in the bottle storage room



For no duty room with pipe network fire extinguishing system, You can consider setting in the bottle storage room

For prefabricated fire extinguishing system without duty room,you can consider to set in an easy to operate position outside the protected area



For prefabricated fire extinguishing system without duty room,you can consider to set in an easy to operate position outside the protected area