

# ***Automatic gas fire extinguishing system Catalog***

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Claire

## System overview

\* The wireless automatic gas fire suppression system provides a real-time, intelligent, and scientific fire monitoring solution for power distribution systems. This system offers uninterrupted online fire monitoring, continuously tracking trends in temperature, humidity, smoke, and toxic gas levels within switchgear cabinets. It enables smoke warnings, temperature alerts, humidity alerts, toxic gas warnings, fire alarms, and rapid fire suppression, significantly enhancing the operational reliability of switchgear cabinets and delivering an environmentally friendly, safe, and efficient fire protection solution for users.

\* The wireless gas automatic fire suppression system consists of a gas automatic fire suppression alarm controller and wireless gas automatic fire suppression devices. It is an intelligent system designed to meet performance requirements for anomaly warnings, fire alarms, automatic fire suppression, process display, and fire record management. The system features temperature monitoring, smoke detection, early warning alerts, automatic fire suppression, wireless transmission, centralized management, and remote monitoring capabilities.

### \* Technical Parameters:

Monitored Data: Temperature, Humidity, Smoke, Toxic Gas;

Temperature Warning: 75°C (adjustable);

High-Temperature Alarm: 100°C (adjustable);

Humidity Alarm: 80% RH (adjustable);

Smoke Alarm Response: ≤5s;

Toxic Gas Alarm Response: ≤5s;

### \* Activation Methods:

Logical Activation (triggered when temperature exceeds 100°C along with smoke or toxic gas alarms);

Remote Activation (via controller or cloud platform);

Manual Override Activation (emergency start button, pressed and held for 3s);

Over-Temperature Activation (when any point along the heat-sensitive detection line installed in the protected space exceeds 170°C).

## ***Fire extinguishing principle***

S-Type Hot Aerosol Generating Agent is a solid chemical mixture composed of oxidizers, reducers, combustion rate controllers, and binders. Upon electrical (thermal) initiation, it undergoes an oxidation-reduction reaction to produce a large quantity of condensed fire-suppressing aerosol. The metal salt particles within the aerosol absorb substantial heat at high temperatures, thereby reducing flame temperature and inhibiting the combustion reaction. Simultaneously, under thermal influence, the vaporized metal ions and cations in the fire-suppressing aerosol gas engage in affinity reactions with active radicals present in the combustion process. This repeatedly and extensively consumes active radicals, reduces combustion free radicals, and efficiently absorbs free radicals within the flame, achieving chemical inhibition. The  $N_2$  and  $CO_2$  in the fire-suppressing aerosol lower the oxygen concentration in the combustion environment. Through the combined action of multiple physical and chemical fire suppression mechanisms, the extinguishing objective is accomplished. Moreover, the aerosol formed by solid particles enveloped within the fire-suppressing gas can remain suspended and disperse into every corner for extended periods, enabling highly efficient total flooding fire suppression.

## ***scope of application***

### **1、Electrical Fires:**

Electrical fires in locations such as high and low voltage distribution rooms, communication equipment rooms, communication base stations, generator rooms, cable interlayers, cable shafts, and cable trenches.

### **2、Solid Surface Fires:**

Surface fires involving combustible solid materials in areas where such materials are used or stored.

### **3、Liquid Fires:**

Fires involving liquids such as diesel fuel (excluding -35 grade diesel), heavy oil, transformer oil, and animal or vegetable oils.

## ***Not applicable scope***

1、Substances that can oxidize without air, such as nitrocellulose, gunpowder, etc.; active metals, such as potassium, sodium, magnesium, titanium, etc.; compounds capable of self-decomposition, such as certain peroxides, hydrazine, etc.; metal hydrides, such as potassium fluoride, sodium hydride, etc.; spontaneously combustible substances, such as phosphorus, etc.; strong oxidizing agents, such as nitrogen oxide, fluorine, etc.

2、Deep-seated fires involving combustible solid materials.

3、Fires in environments with explosion hazards, such as workshops containing explosive dust, etc.

4、Ultra-clean environments, such as pharmaceutical workshops, chip processing facilities, medical rooms, etc.

## 系统拓补图

System extension diagram

Application Layer

应用层



Host Visualization  
主机可视化



Web Management  
Web管理



Mobile App  
手机APP

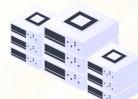


Data Layer

数据层



Cloud Storage  
云存储



Local Server  
本地服务器



Data Layer



Wired

Transmission Layer

传输层

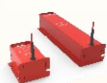


Intelligent Gas Automatic Fire Suppression System Host  
智能气体自动灭火系统主机



Perception Layer

感知层



Automatic Gas Fire Suppression Device  
自动气体灭火装置





## ***Intelligent wireless automatic gas fire extinguishing device***

Automatic gas fire extinguishing devices monitor signals related to electrical fire hazards—such as wire temperature, ambient space temperature, and smoke—through internal fire detection sensors. They enable online measurement, collection, analysis, and control of data. Equipped with RS485 and MODBUS communication interfaces, they can connect to computer monitoring systems. Optional 4G or Lora wireless communication interfaces are available to upload data wirelessly to the cloud platform, allowing users to view on-site data and perform remote control via computer or mobile app from any location.

### ***Product features***

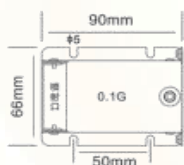
- ✓ Simultaneous online detection of wire temperature, ambient temperature, and smoke to prevent electrical fire hazards.
- ✓ Equipped with various communication interfaces such as RS485, 4G, and Lora.
- ✓ Wireless data upload to the cloud platform enables viewing of on-site data and remote control via computer or mobile app from any location.
- ✓ Functions include real-time data collection, historical curves, event recording, and trend analysis.
- ✓ Two-segment modular product design allows easy replacement of the extinguishing cartridge after use, enabling repeated use and reducing operational costs.



Model definition QRR-Industry Standard Name □G/S-Agent Content □- KEG1 Standalone Type KEG2 RS485 Type KEG3 LORA Type KEG4 4G Type				
Function configuration	QRR □ G/S-KEG1	QRR □ G/S-KEG2	QRR □ G/S-KEG3	QRR □ G/S-KEG4
Communication Method	/	RS485	LORA/433MHz	4G
Dimensions	0.1G/S:66*45*90mm 0.3G/S:66*45*255mm	0.1G/S:66*45*170mm 0.3G/S:66*45*335mm		
Operating Voltage	/	DC24V		
Agent Quantity	0.1G/S:100g±2g 0.3G/S:300g±2g			
Protected Space	0.1G/S:≤1m³ 0.3G/S:≤3m³			
Discharge Time	≤14s			
Discharge Delay Time	≤0.5s			
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75℃			
Surface Temperature of Enclosure	≤75℃			
Extinguishing Density	100g/m³~130g/m³			
Agent Service Life	6 Years			
Protected Area Requirements	Protected area should be relatively enclosed			
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation			
Operating Environment	-40~+85℃ < 95%RH			
Activation Method	Temperature-based activation: (when any point of thermal detection line exceeds 170℃)	Logical activation (temperature exceeds 100℃ and smoke detected simultaneously)		
		Remote activation (via host or cloud platform)		
		Manual forced start (emergency button, press and hold for 3 seconds)		
		Over-temperature activation (when any point of thermal detection line exceeds 170℃)		

**MR/QRR0.1G/S-KEG1**
**Standalone Type**

Automatic gas fire  
extinguishing devices

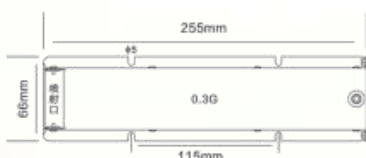


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

Activation Method	Over-temperature activation (when any point of thermal detection line exceeds 170°C)
Communication Method	/
Agent Quantity	100g±2g
Protected Space	≤1m <sup>3</sup>
Dimensions	66*45*90mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C < 95%RH

**MR/QRR0.3G/S-KEG1**
**Standalone Type**

Automatic gas fire  
extinguishing devices

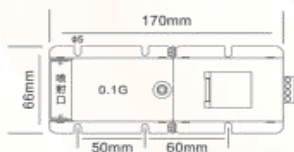


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

Activation Method	Over-temperature activation (when any point of thermal detection line exceeds 170°C)
Communication Method	/
Agent Quantity	300g±2g
Protected Space	≤3m <sup>3</sup>
Dimensions	66*45*255mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C < 95%RH

**MR/QRR0.1G/S-KEG2**

RS485 Type

 Automatic gas fire  
extinguishing devices


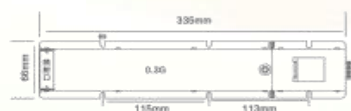
✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.

✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

Activation Method	Over-temperature Activation/Logical Activation/Remote Activation/Manual Forced Start
Communication Method	RS485
Agent Quantity	100g±2g
Protected Space	≤1m <sup>3</sup>
Dimensions	66*45*170mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C <95%RH

**MR/QRR0.3G/S-KEG2**

RS485 Type

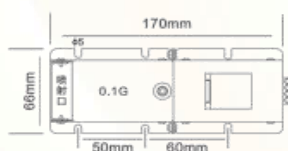
 Automatic gas fire  
extinguishing devices


✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.

✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

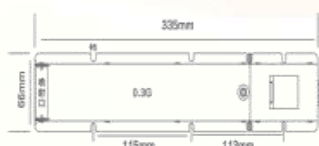
Activation Method	Over-temperature Activation/Logical Activation/Remote Activation/Manual Forced Start
Communication Method	RS485
Agent Quantity	300g±2g
Protected Space	≤3m <sup>3</sup>
Dimensions	66*45*335mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C <95%RH



**MR/QRR0.1G/S-KEG3**
**ROLA Type**
**Automatic gas fire  
extinguishing devices**


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

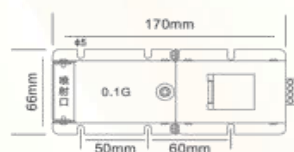
Activation Method	Over-temperature Activation/Logical Activation/Remote Activation/Manual Forced Start
Communication Method	LORA
Agent Quantity	100g±2g
Protected Space	≤1m <sup>3</sup>
Dimensions	66*45*170mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C <95%RH

**MR/QRR0.3G/S-KEG3**
**ROLA Type**
**Automatic gas fire  
extinguishing devices**


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

Activation Method	Over-temperature Activation/Logical Activation/Remote Activation/Manual Forced Start
Communication Method	LORA
Agent Quantity	300g±2g
Protected Space	≤3m <sup>3</sup>
Dimensions	66*45*335mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C <95%RH

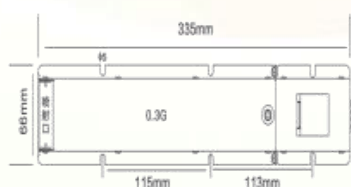
**MR/QRR0.1G/S-KEG4 4G Type**

 Automatic gas fire  
extinguishing devices


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

Activation Method	Over-temperature Activation/Logical Activation/Remote Activation/Manual Forced Start
Communication Method	4G
Agent Quantity	100g±2g
Protected Space	≤1m <sup>3</sup>
Dimensions	66*45*170mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C <95%RH

**MR/QRR0.3G/S-KEG4 4G Type**

 Automatic gas fire  
extinguishing devices


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: 3M adhesive, strong magnetic adsorption, screw fixation.

Activation Method	Over-temperature Activation/Logical Activation/Remote Activation/Manual Forced Start
Communication Method	4G
Agent Quantity	300g±2g
Protected Space	≤3m <sup>3</sup>
Dimensions	66*45*335mm
Discharge Time	≤14s
Discharge Delay Time	≤0.5s
Operating Voltage	/
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C
Surface Temperature of Enclosure	≤75°C
Extinguishing Density	100g/m <sup>3</sup> ~130g/m <sup>3</sup>
Agent Service Life	6 Years
Installation Method	3M adhesive, strong magnetic adsorption, screw fixation
Operating Environment	-40~+85°C <95%RH

## **Intelligent wireless automatic gas fire extinguishing device -Perfluorohexanone Series**

### ***Fire extinguishing principle***

The perfluorohexanone automatic fire suppression device is a colorless, odorless, non-conductive liquid with excellent fire suppression performance and environmental characteristics, recognized as one of the ideal alternatives to Halon fire suppressants. A comprehensive analysis of this fire suppression device will be provided in terms of its working principles, technical features, application scenarios, and development trends.

The perfluorohexanone gas-generating agent exhibits excellent insulation properties, with a leakage current of less than 10 mA under a voltage of 110 kV, eliminating concerns about electrical conduction risks. Utilizing a fire suppression design concentration of 4–6%, it can effectively extinguish Class A, B, C, and E fires within the protected area. Upon deployment, the device vaporizes and absorbs a significant amount of heat, achieving both fire suppression and effective temperature reduction. The fire suppressant remains in a liquid state at room temperature within the device, eliminating concerns about pressure vessel risks during transportation and installation, and eliminating the need for regular pressure inspections.

The fire suppression mechanism of perfluorohexanone is achieved through a dual action of physical and chemical processes:

- 1、Physical Cooling: The vaporization of perfluorohexanone absorbs a large amount of heat, rapidly reducing the temperature of the fire zone. Experiments show that its heat absorption capacity during vaporization is approximately 1.5 times that of water, enabling it to quickly interrupt the combustion chain reaction.
- 2、Chemical Inhibition: Fluorine atoms in the perfluorohexanone molecules can combine with free radicals generated during combustion, forming stable compounds and thereby blocking the chain reaction of combustion. This "chemical suffocation" effect makes it particularly effective for electrical fires and liquid fires (such as oil-based fires).
- 3、Oxygen Isolation: The inert gas formed after the vaporization of perfluorohexanone dilutes the oxygen concentration, reducing the local oxygen content to below 15% (most combustible materials require an oxygen concentration exceeding 16% to sustain combustion).



## *scope of application*


- 1、Power Equipment Protection: Perfluorohexanone fire suppression devices are widely used in scenarios such as power plants, substations, and distribution rooms, and are suitable for areas prone to short circuits, such as cable trenches, cable trays, high/low voltage switchgear cabinets, and cable shafts. Their non-conductive and residue-free properties protect precision electrical equipment and avoid secondary damage caused by traditional fire suppressants (such as water).
- 2、Industrial Production Safety: In flammable and explosive environments, such as petrochemical plants and mechanical manufacturing facilities, these devices effectively control fire spread by rapidly reducing temperatures (through physical heat absorption) and blocking combustion chain reactions (via chemical suppression), ensuring the safety of production lines and personnel.
- 3、New Energy Vehicles and Energy Storage Power Stations: For fires caused by thermal runaway in lithium batteries, perfluorohexanone devices can accurately detect and extinguish fires in battery compartments, motor compartments, or densely packed battery modules within energy storage units.
- 4、Rail Transit: In fire protection for train carriages and subway platforms, perfluorohexanone devices respond rapidly, reduce smoke concentration, prevent fire spread, and ensure the safety of passenger evacuation.
- 5、Marine and Aerospace Applications: In ship engine rooms and confined aircraft spaces, their residue-free properties prevent equipment corrosion, while their efficient fire suppression capabilities meet the demands of extreme environments.
- 6、Cultural Heritage Protection: In venues such as museums, archives, and ancient buildings, high requirements are placed on fire suppressants. The non-corrosive and easily volatile properties of perfluorohexanone protect paper artifacts, wooden structures, and metal components, avoiding secondary damage caused by traditional fire suppressants. For example, experiments show that Xuan paper immersed in perfluorohexanone retains its ink without damage.
- 7、Data Centers and Equipment Rooms: Server rooms require fire suppressants with excellent electrical insulation and residue-free characteristics. Perfluorohexanone can extinguish fires within seconds, minimizing downtime and ensuring data security.
- 8、Medical Equipment: In hospital precision instrument rooms and laboratories, the non-toxic and rapid evaporation properties of perfluorohexanone prevent adverse effects on sensitive equipment.



Automatic gas fire extinguishing devices monitor signals related to electrical fire hazards—such as wire temperature, ambient space temperature, and smoke—through internal fire detection sensors. They enable online measurement, collection, analysis, and control of data. Equipped with RS485 and MODBUS communication interfaces, they can connect to computer monitoring systems. Optional 4G or Lora wireless communication interfaces are available to upload data wirelessly to the cloud platform, allowing users to view on-site data and perform remote control via computer or mobile app from any location.

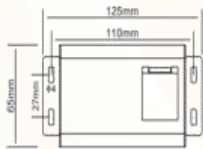
## Product features

- ✓ It consists of a wireless alarm control unit and a perfluorohexanone fire extinguishing device.
- ✓ Simultaneous online detection of wire temperature, ambient temperature, and smoke to prevent electrical fire hazards.
- ✓ Equipped with various communication interfaces such as RS485, 4G, and Lora.
- ✓ Functions include real-time data collection, historical curves, event recording, and trend analysis.
- ✓ The split-type product design

Model definition YF -Industry Standard Name □ Q -Agent Content KEG1 -Standalone Type					
	YF0.18Q/KEG1	YF0.3Q/KEG1	YF0.5Q/KEG1	YF1.0Q/KEG1	YF1.5Q/KEG1
Function configuration					
Agent Quantity	180g	300g	500g	1000g	1500g
Protected Space	≤0.3m³	≤0.6m³	≤1m³	≤2m³	≤3m³
Dimensions	145*80*20mm	145*125*20mm	63*63*362mm	63*63*362mm	63*63*442mm
Energy Storage Method	Non-stored Pressure Type				
Application Method	Total Flooding or Local Flooding				
Discharge Time	≤14s				
Discharge Delay Time	≤0.5s				
Nozzle Thermal Clearance	Temperature at 400mm from nozzle ≤75°C				
Surface Temperature of Enclosure	≤75°C				
Extinguishing Density	100g/m³~130g/m³				
Agent Service Life	6 Years				
Protected Area Requirements	Protected area should be relatively enclosed				
Installation Method	screw fixation				
Operating Environment	-40~+85°C < 95%RH				
Activation Method	Logical activation (temperature exceeds 100°C and smoke detected simultaneously)				
	Remote activation (via host or cloud platform)				
	Manual forced start (emergency button, press and hold for 3 seconds)				
	Over-temperature activation (when any point of thermal detection line exceeds 170°C)				

## Wireless Alarm Controller

## Wireless Alarm Controller

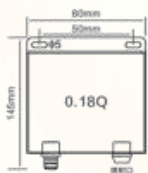


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: Screw Fixation

Activation Method	Logical Activation Remote Activation Manual Override Activation
Communication Method	KEG6-RS Wired RS4 KEG6-LR Wireless LORA KEG6-4G Wireless 4G
Housing Material	Aluminum Alloy
Dimensions	125*65*52mm
Installation Method	Screw Fixation

## YF0.18Q

## Automatic gas fire extinguishing devices

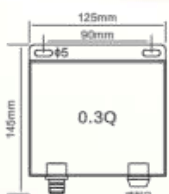


- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: Screw Fixation

Agent Quantity	180g±2g
Protected Space	≤0.3m³
Dimensions	145*80*20mm
Discharge Time	≤14s
Surface Temperature of Enclosure	≤75°C
Agent Service Life	6 Years
Installation Method	Screw Fixation

## YF0.3Q

## Automatic gas fire extinguishing devices



- ✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.
- ✓ Installation Method: Screw Fixation

Agent Quantity	300g±2g
Protected Space	≤0.6m³
Dimensions	145*125*20mm
Discharge Time	≤14s
Surface Temperature of Enclosure	≤75°C
Agent Service Life	6 Years
Installation Method	Screw Fixation

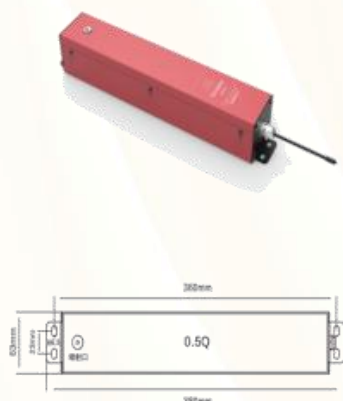
## YF0.5Q

Automatic gas fire  
extinguishing devices

✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.

✓ Installation Method: Screw Fixation

Agent Quantity	500g±2g
Protected Space	≤1m <sup>3</sup>
Dimensions	63*63*380mm
Discharge Time	≤14s
Surface Temperature of Enclosure	≤75°C
Agent Service Life	6 Years
Installation Method	Screw Fixation



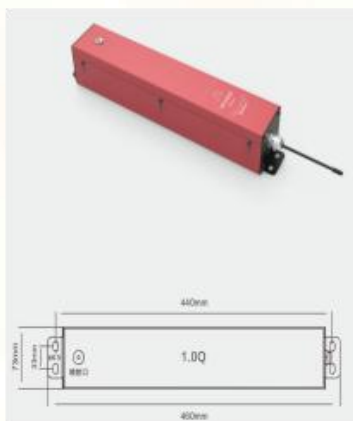
## YF1.0Q

Automatic gas fire  
extinguishing devices

✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.

✓ Installation Method: Screw Fixation

Agent Quantity	1000g±2g
Protected Space	≤2m <sup>3</sup>
Dimensions	73*73*460mm
Discharge Time	≤14s
Surface Temperature of Enclosure	≤75°C
Agent Service Life	6 Years
Installation Method	Screw Fixation



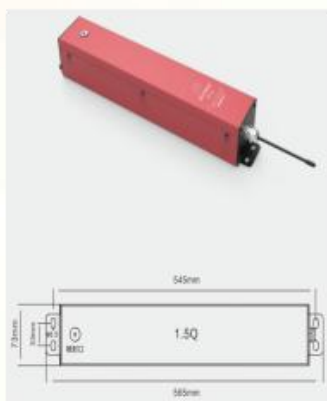
## YF1.5Q

Automatic gas fire  
extinguishing devices

✓ Installation Location: On the mid-section of the inner side panel of the power distribution or control cabinet.

✓ Installation Method: Screw Fixation

Agent Quantity	1500g±2g
Protected Space	≤3m <sup>3</sup>
Dimensions	73*73*565mm
Discharge Time	≤14s
Surface Temperature of Enclosure	≤75°C
Agent Service Life	6 Years
Installation Method	Screw Fixation





## Intelligent wireless automatic gas fire extinguishing host

The intelligent wireless automatic gas fire suppression host comprises a CPU main control unit, an alarm unit, a communication unit, and a display unit. By connecting to on-site wireless gas fire suppression devices, it accurately receives environmental data transmitted from the fire suppression devices. Through operational analysis, it determines whether the data exceeds the set thresholds and triggers audible and visual alarms if any parameter exceeds the limits.

The intelligent wireless automatic gas fire suppression host is equipped with a 10-inch LCD touchscreen for displaying real-time measured data on site. It supports functions such as historical data query, system time setting, and alarm parameter configuration. The user interface is designed to be simple and user-friendly. The unit adopts a wall-mounted installation method.

### Functional Features



- \* Digital processing technology for real-time monitoring and display of environmental status in each power distribution cabinet.
- \* RS485 communication technology for real-time and accurate transmission of operational parameters and control commands.
- \* LORA and 4G wireless communication technologies.
- \* High-risk early warning and alarm.
- \* Intelligent data analysis and smart parameter configuration.
- \* Remote activation of intelligent fire suppression devices.
- \* System self-check and network inspection functions.
- \* Audible and visual alarm functions.
- \* Storage and query functions for alarm and fault records.
- \* SMS notification: Supports up to 10 recipients simultaneously.

### Technical Specifications

Model: Intelligent Wireless Gas Automatic Fire Suppression System Host

Power Supply: AC220V

Display: 10-inch LCD Touchscreen

Monitoring Points: LORA Points: 80; RS485 Points: 240

Alert Method Audible and visual alarm, alarm sound  $\geq 70\text{dB}$

Storage Records  $\geq 10,000$  entries

Wired Communication Method: RS485

Wired Communication Distance:  $\leq 500\text{m}$

Wireless Communication Methods: LORA; 4G Gateway (optional)

Wireless Communication Distances: LORA  $\leq 200\text{m}$ ; 4G unlimited distance

Ambient Temperature:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$

Altitude:  $\leq 4500$  meters

Product Dimensions:  $350*400*130\text{mm}$

Installation Method: Wall-mounted

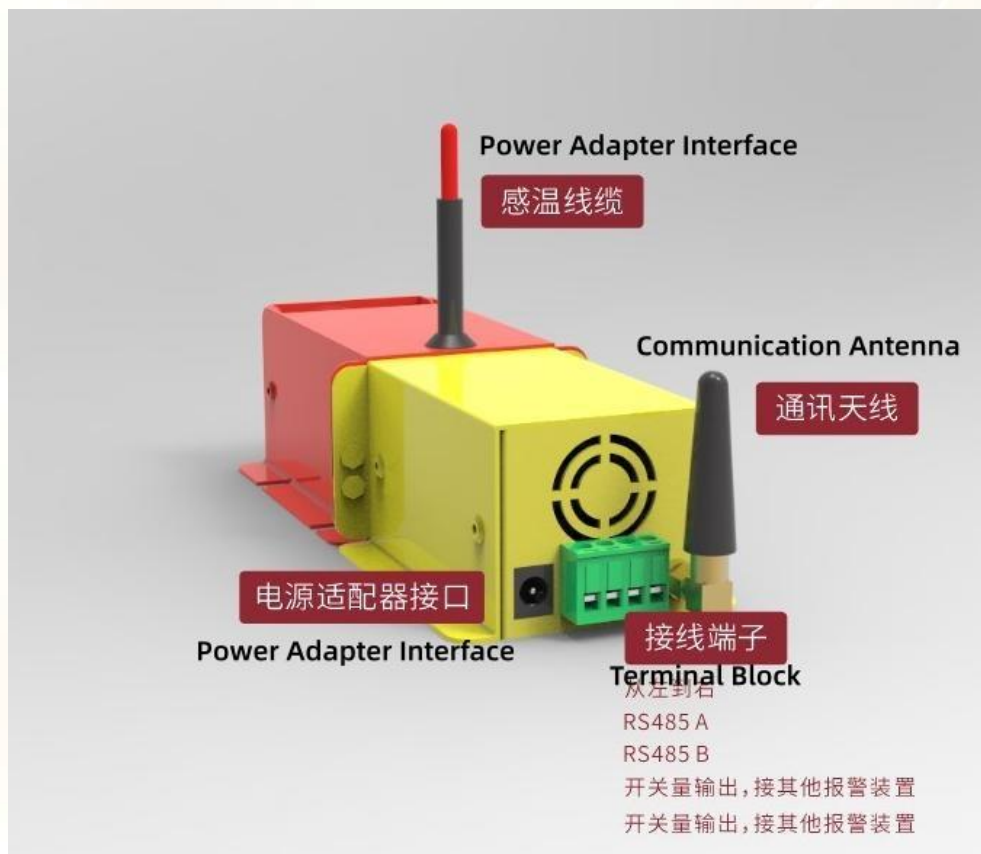


## Product installation and wiring instructions

- ✓ The installation distance between the control unit and the fire extinguishing device should preferably be kept within 200 meters.
- ✓ The control unit adopts a wall-mounted installation method.
- ✓ Depending on scenario requirements, the control unit should be connected to the configured 4G or LORA antenna.
- ✓ The control unit is powered by an external AC 220V power supply.

## Installation and wiring of aerosol fire extinguishing device

- ✓ The fire extinguishing device is typically installed on the mid-section of the inner side panel of the power distribution cabinet.
- ✓ The fire extinguishing device is installed using magnetic adsorption or screw fixation.
- ✓ The fire extinguishing device draws AC 220V power from within the cabinet via a power adapter (standard equipment).
- ✓ The thermal sensing cable provides full-length temperature measurement and is routed in a serpentine pattern within the power distribution cabinet (Figure 2). This allows for immediate triggering of the automatic fire extinguishing system when an open flame occurs at any point.



## Installation and wiring of perfluorohexane fire extinguishing device

- ✓ The fire extinguishing device and controller are typically installed on the mid-section of the inner side panel of the power distribution cabinet.
- ✓ The fire extinguishing device and controller are secured by screw fixation.
- ✓ The controller operates on AC 220V power drawn from the cabinet, while the electric initiator wire and feedback wire of the fire extinguishing device are connected to the corresponding terminals of the controller.
- ✓ The temperature-sensing cable enables full-length temperature monitoring. Routed in a serpentine pattern inside electrical distribution boxes/cabinets, it can trigger automatic fire suppression immediately when an open flame occurs at any location.
- ✓ The split-type product design allows users to easily replace the extinguishing cartridge after deployment, supporting multiple reuses and reducing operational costs.

