



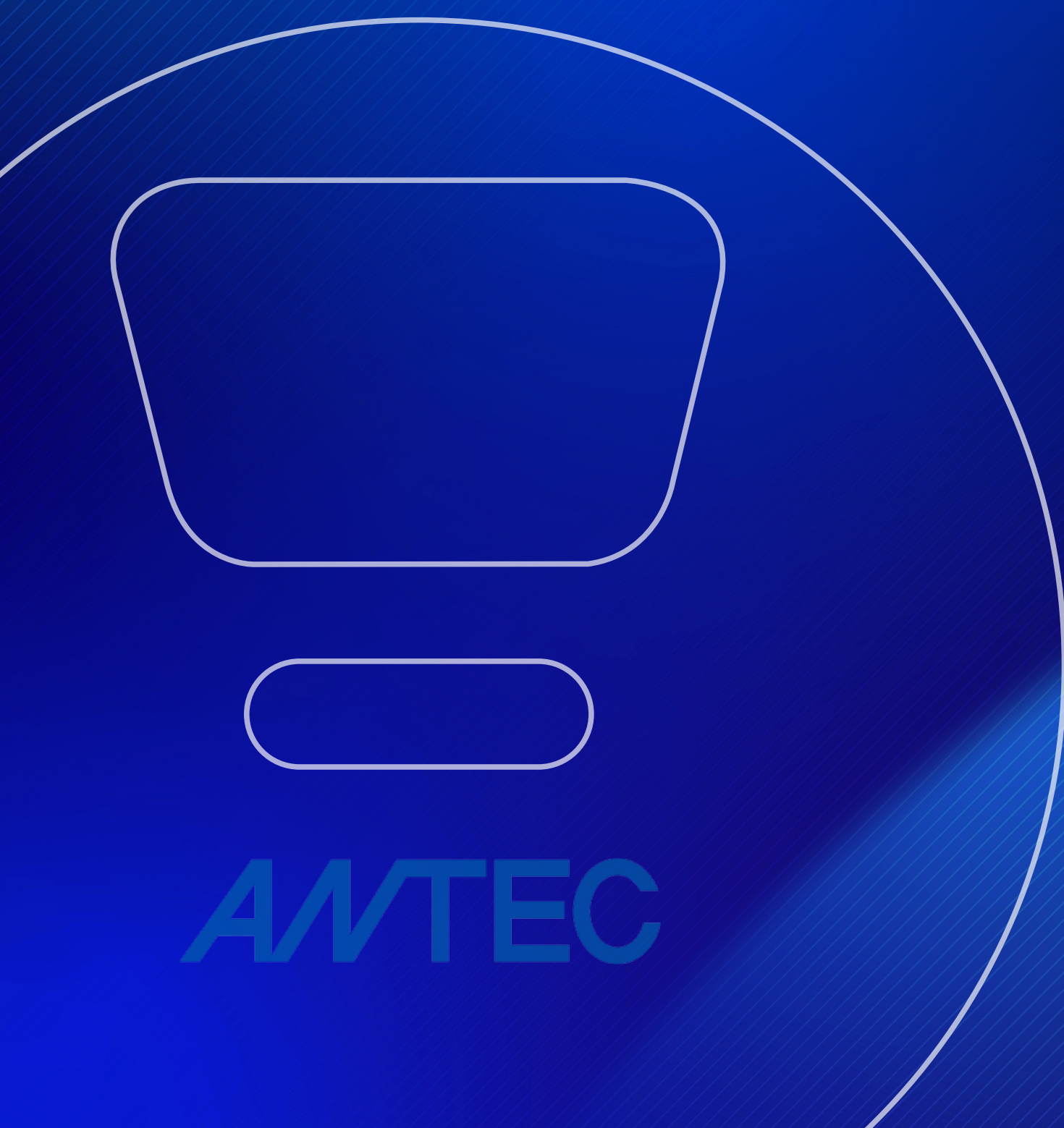
ANTEC

GENERAL PRODUCT CATALOG 2025

ATV FIRE PRO CO.,LTD

**WE BUILD CULTURE BY CONSIDERING FIRE AS AN ALLY AND PRESERVE
CULTURE BY SEEING FIRE AS AN ENEMY, FOCUSING ON THE WEALTH
AND PROSPERITY OF HUMANITY THROUGH ELECTRONIC TECHNOLOGY.**

**Our company focuses on the fluctuations of ultraviolet (UV) rays emitted by ‘sunlight’ and ‘flames’
in the natural environment and has developed a fire sensor capable of detecting only the UV rays
emitted by flames through advanced separation technology.**



AVTEC

Product List

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Diamond Semiconductor UV Sensors

Standard Type

Standard Flame Sensor

SKH047M

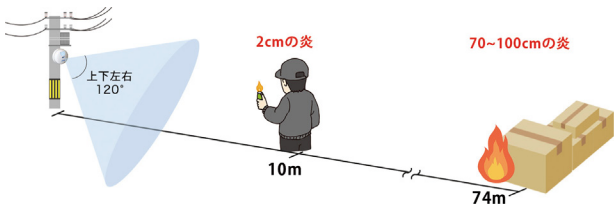
▼Product details



Product Specifications

Product Name	Standard Fire Sensor
Model Number	SKH047M
Input Voltage	DC 7~24V
Wiring	4 wires (2 power wires, 2 output wires)
Power Consumption	Standby mode: ≤ 20mA / Fire detection mode: ≤ 60mA (at 12V DC, room temperature)
Operating Temperature	-10°C to +60°C (No condensation)
Detection Method	Ultraviolet (UV) detection (Detection wavelength: 185nm~260nm)
Detection Distance	Detects a 2cm flame from a distance of 10m
Detection Angle	120° left/right, 120° up/down (±60° from the sensor front)
Detection Timer Function	Adjustable from 0.5s, 1s to 31s (Configured via DIP switch) Factory Default Setting: 4s
Fire Detection Output	Relay output (Normally Open Contact): AC 125V-0.5A / DC 24V-1A ※ Note: Can be customized with Normally Closed Contact (b-contact) or Open Collector Output upon request.
Alarm Output Hold Function	Alarm Output Hold Function ※ Note: Alarm output turns OFF 30 seconds after UV detection stops.
Monitoring Location	Indoor & Outdoor (Equivalent to IP64)
Operating Indicator (On-device LED)	LED turns blue when detecting fire
External Dimensions	φ72.8mm × 34.5mm (including spacer)
Weight	Approximately 75g (including standard cable)
Casing Material	Flame-retardant ABS (UL94 standard)

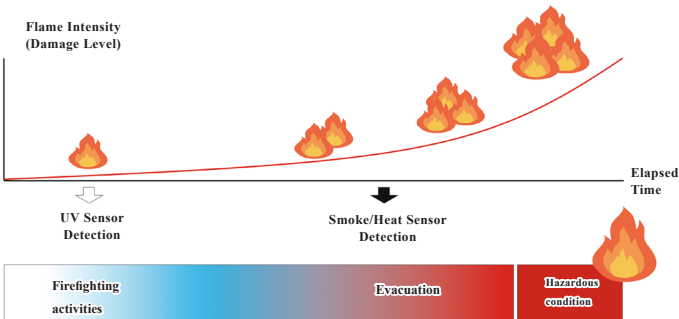
Overview



Our flame sensors instantly detect the ultraviolet (UV) rays emitted by lighters or matches ignited by arsonists.

While flame sensors from other manufacturers are affected by sunlight and unsuitable for outdoor use, our flame sensors utilize proprietary sunlight separation technology, making them suitable for outdoor applications.

Advantages of Ultraviolet (UV) Sensors



Features

- ✓ **Dustproof & Waterproof (IP64 Compliant)**
Suitable for outdoor installation.
- ✓ **High-Sensitivity & Fast Flame Detection Using UV Technology**
Detects a flame as small as a lighter flame (2cm high) from 10m away.
Detects a 1m-high flame from approximately 70m away.
Fastest detection time: 0.5 seconds.
- ✓ **Versatile Output Functions**
Supports both relay contact and open collector output as standard.
Can be connected to alarm buzzers, rotating lights, and voice synthesis units.
Compatible with third-party alarm systems.
- ✓ **World's Smallest Flame Sensor**
The smallest UV-based flame sensor in the world.
- ✓ **Detection Timer Function**
Helps prevent false alarms with adjustable timer settings.
Easily configurable via DIP switch on the back (Range: 0.5s, 1s to 31s, adjustable in 1-second increments).
※ Restart the power after changing the settings.
- ✓ **Standard Mounting Bracket Included**
Equipped with a mounting bracket for quick and easy installation.

Optional Accessories

Demo Unit



SKH047M Demo Unit

Operates on batteries, making it portable for examining the UV environment around an installation site.

- ※ Do not use for purposes other than environmental assessment or sensor performance verification.
- ※ Made to order.

Coated Circuit Board Model



SKH047M-C

Special coating applied to the circuit board to enable use in dusty or humid environments.

- ※ Made to order.
- ※ Not resistant to vibrations.

Mounting Brackets



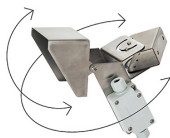
SKH047SP1 ((Adjustable Up/Down Angle)

Adjusts the vertical installation angle of the Standard Flame Sensor SKH047M.



SKH047SP2/ SKH047SP2T (Adjustable Up/Down Angle with Sunshade Hood)

Equipped with a sunshade hood.
Option to attach a repeater (SKH047SP2T).
※ Both SKH047SP2 and SKH047SP2T are made to order.



SKH047SP3/ SKH047SP3T (Adjustable Up/Down/Left/Right Angle with Sunshade Hood)

Equipped with a sunshade hood and allows both vertical and horizontal angle adjustments.
Option to attach a repeater (SKH047SP3T).
※ Both SKH047SP3 and SKH047SP3T are made to order.
※ The photo shows the SKH047SP3T model.

[FM Approved] Standard Flame Sensor

SKH047MF

▼ Product details



[Voltage Output Type] Standard Flame Sensor

SKH047MS



Product Specifications

Product Name	[FM Approved] Standard Flame Sensor		[Voltage Output Type] Standard Flame Sensor
Model Number	SKH047MF		SKH047MS
Input Voltage	DC 9~24V		DC 7~24V
Wiring	4 wires (2 power wires, 2 output wires)		4 wires (2 power wires, 1 output wire, 1 unused wire)
Power Consumption	Chế độ chờ: ≤35mA / Khi phát hiện: ≤60mA (ở 12V DC, nhiệt độ phòng)		
Operating Temperature	-10°C đến +60°C (không đọng sương)		
Detection Method	Phát hiện tia cực tím (UV) (Bước sóng: 185nm~260nm)		
Detection Distance	50m, 4 giây (33×33×5H)cm / Nước 21mm (2.3L), N-heptane 9mm (0.9L))		Phát hiện ngọn lửa 2cm ở khoảng cách 10m
Detection Angle	90° trái/phải, 30° trên/dưới (±45° trái/phải, ±15° trên/dưới từ mặt trước cảm biến)		120° trái/phải, 120° trên/dưới (±60° trái/phải, ±60° trên/dưới từ mặt trước cảm biến)
Detection Timer Function	Có thể điều chỉnh 0.5s, 1s đến 31s (cấu hình qua DIP switch - Cài đặt mặc định khi xuất xưởng: 4s ※ FM chỉ chứng nhận thời gian cài đặt 4 giây. Nếu thiết lập thời gian khác, sản phẩm sẽ không tuân thủ tiêu chuẩn FM.		
Flame Detection Output	Dây trắng: Đầu ra điện áp 5-0V (Khi phát hiện lửa: 0V)		
Software Alarm Output	Dây xanh: Đầu ra collector bù (Khi lỗi phần mềm xảy ra: Transistor OFF)	-	
Alarm Output Hold Function	Thời gian giữ đầu ra: Khoảng 30 giây ※ Đầu ra cảnh báo sẽ tắt sau khoảng 30 giây kể từ khi tia UV không còn được phát hiện.		
Monitoring Location	Trong nhà		Trong nhà & Ngoài trời (Tương đương IP64)
Operating Indicator (LED on device)	- Đèn LED xanh BẬT, LED đỏ TẮT Chế độ chờ - Đèn LED xanh TẮT, LED đỏ BẬT: Phát hiện lửa - Đèn LED xanh TẮT, LED đỏ TẮT: Lỗi phần mềm		- Đèn LED xanh BẬT, LED đỏ TẮT: Chế độ chờ - Đèn LED xanh TẮT, LED đỏ BẬT: Phát hiện lửa - Đèn LED xanh TẮT, LED đỏ TẮT: Phát hiện lỗi
External Dimensions	φ72.8mm × 34.5mm (including spacer)		
Weight	Approximately 75g (including standard cable)		
Casing Material	Flame-retardant ABS (UL94 standard)		

Overview

Based on the Standard Flame Sensor SKH047M, we developed the FM Approvals-certified product SKH047MF. Obtaining FM certification for a flame sensor—considered rare in the industry—ensures even higher product quality and safety. Furthermore, this is the first flame sensor in the world to receive certification both as a non-explosion-proof type and as a standalone ultraviolet (UV) detection sensor.

※ Information as of October 2024.

What is FM Certification?

FM Certification is a product standard managed by Factory Mutual Insurance Company (FM), an insurance company based in the United States that provides coverage worldwide.

FM evaluates product reliability through independent testing of both hardware and software. Products that meet FM's stringent criteria are certified for their superior safety and performance.

Certified products cover a wide range of fire protection equipment, from sprinklers, fire alarms, to fire-resistant walls, and are highly trusted by regulatory authorities and insurance companies worldwide.

Features

✓ Proprietary Technology for UV Separation

A unique technology that separates ultraviolet (UV) rays from sunlight and flames, reducing false alarms.

✓ High Sensitivity & Fast Flame Detection Using UV Detection

Capable of detecting flames from n-heptane in a 33cm square fire tray at 50m distance within 4 seconds.

✓ Equipped with a Power Indicator Lamp

In normal operation, a blue LED lights up as a power indicator. When a flame is detected, the LED turns red, notifying the user.

✓ World's Smallest Flame Sensor

As a UV-based flame sensor, it has the smallest size in the world.

✓ Voltage Output

Uses voltage output (Normal: 5V, Detection: 0V), allowing not only flame detection signals but also sensor status monitoring.

✓ Detection Timer Function

Helps prevent false alarms by configuring a detection timer. Settings can be easily adjusted using a DIP switch on the back (Range: 0.5s, 1s to 31s, adjustable in 1s increments).. ※ After changing settings, please restart the power.

Repeater

SKH004T

[Waterproof Type]

Easily connects the sensor cable with an external cable. Equipped with a 4-pole screw-type terminal block.



Light Shielding Device

SKH047BK

Narrows the viewing angle of the Standard Flame Sensor SKH047M. Made of bakelite resin, allowing the viewing angle to be adjusted by cutting the tube.

Equipped with double-sided tape on the back, enabling attachment without modifying the sensor.



Voice Player

SKH047VPT

A device that provides audio alerts for sensor activation.

Supports contact input and can be connected to SKH047M.



Attenuation Filter



Weak → Strong

Can be attached to the light-receiving part of the Standard Flame Sensor SKH047M to reduce the received light intensity. Available in 9 different attenuation levels.

※ Made to order.

Ultraviolet Emitter

UV3 *New product

Used to test the operation of flame sensors in areas where open flames are prohibited (e.g., factories and offices).

Compatible with all models of our flame sensors and can be used at a distance of approximately 7m from the sensor.

Uses 4 AAA batteries, making battery replacement easy.

Lưu ý:

This product is not for measuring the sensitivity of flame sensors.

Avoid direct eye exposure to UV light.



For Heavy Machinery

Flame sensor for Heavy Machinery

SKH086M

▼ Product details

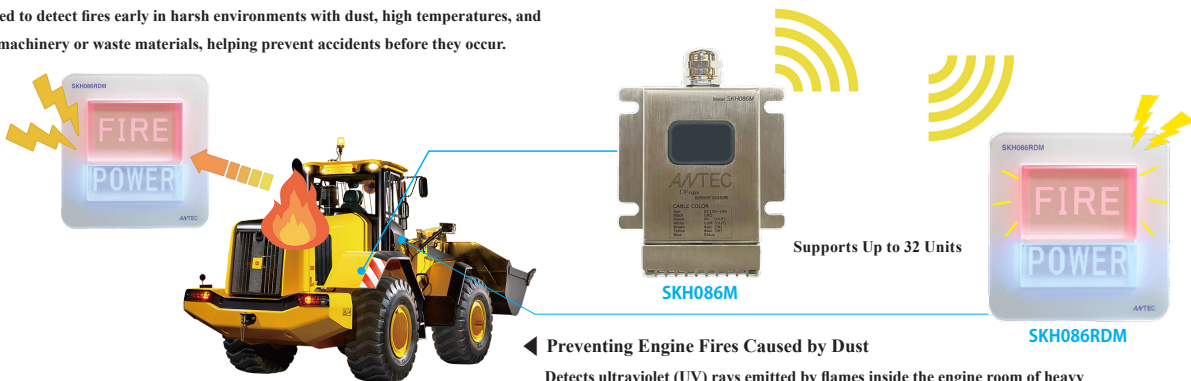


Product Specifications

Product Name	Heavy Machinery Flame Sensor
Model	SKH086M
Input Voltage	DC 12–24V (Built-in reverse connection protection circuit)
Wiring	7 wires (2 power wires, 2 output wires, 2 detection timer setting wires, 1 wireless setup wire)
Power Consumption	Standby: ≤20mA / Detection: ≤50mA (at 12V DC, room temperature)
Operating Temperature	-10°C to 100°C (Maximum rating: 115°C)
Detection Method	Ultraviolet (UV) detection (Detection wavelength: 185nm–260nm)
Detection Distance	Detects a 2cm flame at 5m distance
Detection Angle	90° left/right, 30° up/down (±45° left/right, ±15° up/down from sensor front)
Detection Timer Function	Selectable: 0.5s, 4s, 8s, 12s (Configurable via wiring)
Flame Detection Output	Wireless output (Requires SKH086RDM for reception) / Open collector output
Flame Detection Output	Output hold time: approximately 30s ※The alarm output turns OFF about 30 seconds after UV detection stops.
Monitoring Location	Indoor & Outdoor (Fully waterproof, can be installed on vibrating structures)
External Dimensions	W53mm × D85mm × H32mm (excluding mounting plate and protrusions)
Weight	Approximately 420g (including standard cable)
Casing Material	SUS304 stainless steel (Antenna transmission part: Bakelite)
Compatible Devices	Wireless Display Unit SKH086RDM

Overview

Designed to detect fires early in harsh environments with dust, high temperatures, and heavy machinery or waste materials, helping prevent accidents before they occur.



Preventing Engine Fires Caused by Dust

Detects ultraviolet (UV) rays emitted by flames inside the engine room of heavy machinery.

Alerts the operator with an alarm to take immediate action.

Features

- ✓ **Proprietary UV Separation Technology**
Uses a unique technology to separate ultraviolet (UV) rays from sunlight and flames, allowing outdoor use without false alarms caused by sunlight.
- ✓ **High-Sensitivity & Fast Flame Detection Using UV Technology**
Detects a small flame (about 2cm high, like a lighter flame) from 5m away.
Detects a 1m-high flame from up to 50m away.
Fastest detection time: 0.5 seconds.
- ✓ **Suitable for Harsh Environments**
Equipped with vibration resistance, heat resistance, dustproof, and fully waterproof capabilities, making it suitable for various extreme conditions.
- ✓ **Built-in Reverse Polarity Protection Circuit**
Ensures the sensor operates correctly even if the power polarity is reversed.
- ✓ **Simple Wiring & Signal Output**
Operates by simply connecting two power wires.
Supports both wired (open-collector) and wireless output.
To use wireless output, a wireless display unit (SKH086RDM) is required.
※ SKH086M and SKH086RDM are pre-paired before shipment.

Related Products

Wireless Display Unit

SKH086RDM



Product Specifications

Product Name	Wireless Display Unit
Model	SKH086RDM
Input Voltage	DC 12–24V
Wiring	1 wire (Cigarette plug)
Power Consumption	Maximum 80mA (at 24V DC, room temperature)
Operating Temperature	-10°C to +60°C (No condensation)
Monitoring Location	Installed in heavy machinery cockpits
Operating Indicator (LED on device)	Blue LED ON, Red LED OFF: Standby Mode Blue LED ON, Red LED Blinking: Flame Detected (Receiving signal from SKH086M)
External Dimensions	W110mm × D110mm × H33mm (excluding mounting base)
Weight	Approximately 560g (including cable and mounting base)
Casing Material	Panel: Polycarbonate / Mounting Base: SUS304 Stainless Steel
Compatible Devices	Heavy Machinery Flame Sensor SKH086M

※ A wired version is also available as an option.

For Conveyor Belts

Flame Sensor for Belt Conveyors

SKH086EEP

▼ Product details



Product Specifications

Product Name	Flame Sensor for Belt Conveyors
Model	SKH086EEP
Input Voltage	DC 12–24V (Built-in reverse connection protection circuit)
Wiring	6 wires (2 power wires, 2 output wires, 2 detection timer setting wires)
Power Consumption	Standby: ≤20mA / Detection: ≤50mA (at 12V DC, room temperature)
Operating Temperature	-10°C to 100°C (Maximum rating: 115°C)
Detection Method	Ultraviolet (UV) detection (Detection wavelength: 185nm–260nm)
Detection Distance	Detects a 2cm flame at 5m distance
Detection Angle	90° left/right, 30° up/down (±45° left/right, ±15° up/down from sensor front)
Detection Timer Function	Selectable: 0.5s, 4s, 8s, 12s (Configurable via wiring)
Flame Detection Output	Open collector output
Alarm Output Hold Function	Output hold time: approximately 30s ※ The alarm output turns OFF about 30 seconds after UV detection stops.
Monitoring Location	Indoor & Outdoor (Fully waterproof, can be installed on vibrating structures) / Direct installation inside belt conveyors
External Dimensions	W53mm × D95mm × H27mm (excluding mounting bolts and protrusions)
Weight	Approximately 380g (including standard cable)
Casing Material	SUS304 stainless steel

Overview

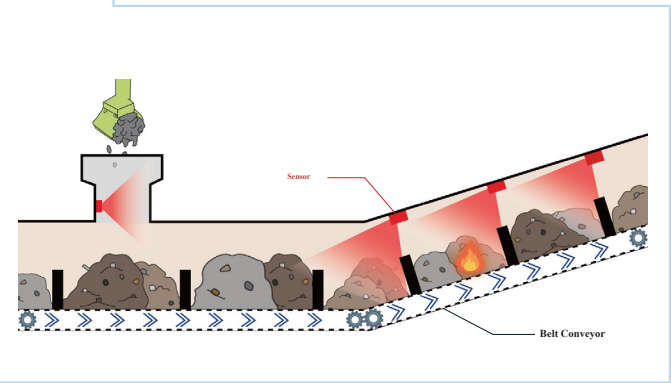
In recent years, a major issue at waste treatment facilities has been fires caused by lithium-ion batteries that are mixed into household waste.

Improperly sorted lithium-ion batteries can experience strong impacts during waste collection or recycling, leading to thermal runaway, intense ignition, and sparks. As a result, fires at waste treatment facilities have become a persistent problem.

To address this issue, we have applied our expertise in vibration-resistant, heat-resistant, dustproof, and fully waterproof technologies—developed for heavy machinery flame sensors—to create a flame sensor for belt conveyors.

By installing this sensor directly inside belt conveyors or pits, it can detect fires caused by industrial waste. Its simple, compact design allows it to monitor high-risk areas that are difficult to equip with conventional sensors.

Illustration



Features

- ✓ **Proprietary UV Separation Technology**
Uses unique technology to separate ultraviolet (UV) rays from sunlight and flames, allowing outdoor use without false alarms caused by sunlight.
- ✓ **High-Sensitivity & Fast Flame Detection with UV Technology**
Detects a small flame (approximately 2cm high, like a lighter flame) from 5m away.
Detects a 1m-high flame from approximately 35m away.
Fastest detection time: 0.5 seconds.
- ✓ **Suitable for Harsh Environments**
Equipped with vibration resistance, heat resistance, dustproof, and fully waterproof capabilities, making it suitable for various environments.
- ✓ **Adjustable Mounting Angle**
Bolts on both sides of the housing allow for flexible angle adjustment, making installation possible even inside narrow spaces of belt conveyors.
- ✓ **Built-in Reverse Polarity Protection Circuit**
Equipped with a reverse polarity protection circuit, ensuring operation even if the power polarity is connected incorrectly.
- ✓ **Simple Wiring & Signal Output**
Operates by simply connecting two power wires.
Signal output is provided via wired open-collector output.

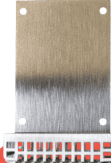
Head Cover

Standard Head Cover



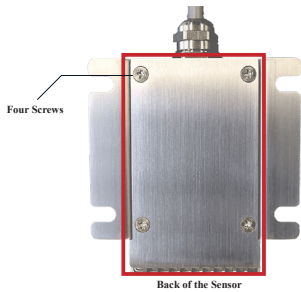
The front end of the head cover is designed in a cylindrical shape, allowing a narrower field of view.
Recommended for cases where precise flame monitoring is needed or to reduce the influence of external UV light.

Wide-Angle Type



Compared to the standard head cover, this version has more grid openings, expanding the field of view.
Suitable for detecting flames across a wider area.
※ Field of View: 100° up/down and left/right (±50° from the sensor front).

How to Attach/Replace the Head Cover



The head cover can be removed by unscrewing the four screws on the back of the sensor.
It can be replaced with a different head cover that suits the intended application.
Custom head covers can be manufactured upon request.

For Power Distribution & Control Panels

Flame Sensor for Power Distribution & Control Panels

SKH089

▼ Product details



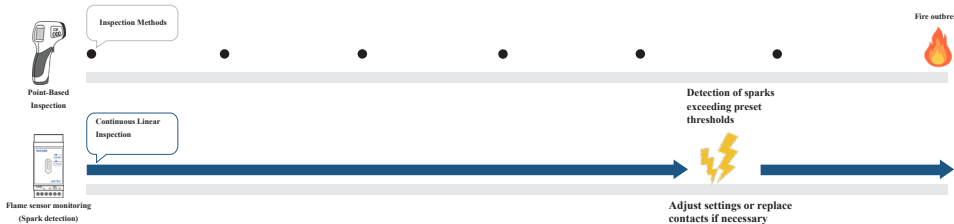
Product Specifications

Product Name	Flame Sensor for Power Distribution & Control Panels
Model	SKH089
Input Voltage	DC 12–30V
Wiring	5-pole screw terminal block (2 poles for power, 3 poles for output)
Power Consumption	Standby: ≤25mA / Detection: ≤90mA (at 12V DC, room temperature)
Operating Temperature	-10°C to +60°C (No condensation)
Detection Method	Ultraviolet (UV) detection (Detection wavelength: 185nm–260nm)
Detection Distance	Detects a 2cm flame at 10m distance
Detection Angle	Detects UV reflections inside power distribution & control panels
Detection Timer Function	Adjustable 0.5s, 1s to 31s (configurable via DIP switch) Factory default setting: 4s
Flame Detection Output	1c relay contact output (AC 125V 0.5A / DC 24V 1A)
Alarm Output Hold Function	Output hold time: approximately 30s ※ The alarm output turns OFF about 30 seconds after UV detection stops.
Monitoring Location	Inside power distribution/control panel enclosures (Fixed using DIN rail)
Operating Indicator (LED on device)	Blue LED ON, Red LED OFF: Standby Mode Blue LED ON, Red LED ON: Flame Detected
External Dimensions	W35mm × D90mm × H58mm
Weight	Approximately 80g
Chất liệu vỏ	Panel: Polycarbonate / Enclosure: PPO Resin (UL94V-0)

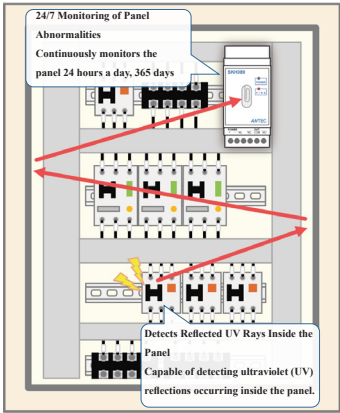
Overview

The main causes of explosions in factories usually stem from electrical sparks and overcurrent in high-current switching devices installed in electrical cabinets and control cabinets.

The earlier the fire is detected, the more the damage to the company's assets can be minimized. Therefore, we have developed a specialized fire sensor, specifically designed for electrical cabinets and control cabinets.



By using this monitoring method, it is possible to detect early signs of fire hazards before a fire actually



Features

✓ Easy Installation

Can be directly mounted on DIN rails, which are widely used in power distribution and control panels.

✓ Compact & Lightweight

Small body with dimensions W35mm × H90mm × D58mm, integrating high performance.
*Lightweight at only 80g.

✓ Relay Output with C Contact

Equipped with convenient relay contact output.
Can be directly connected to equipment or I/O ports of PLCs for automation control.

✓ Wide Power Supply Range

Supports DC 12V–30V.
When used with the SKH089PW sensor output mixer with power supply, it can operate within AC 100V–220V.

✓ Detection Timer Function

Adjustable detection timer to match the operating environment.
Selectable range: 0.5s, 1s to 31s (adjustable in 1-second increments).
DIP switch on the back allows easy timer configuration changes.
※ After changing the setting, the power must be restarted for the new settings to take effect.



Related Products



Sensor Output Mixer with Power Supply

SKH089PW

A sensor output mixer with a built-in power supply developed to detect ignition from multiple sources at an early stage.
Combines the Nittan Optical Smoke Detector (0KB-3) with our SKH089 Flame Sensor for Power Distribution & Control Panels.



Nittan Optical Smoke Detector

0KB-3

Designed for installation in power distribution and control panels.
Significantly improved sensitivity compared to conventional detectors.
Quickly detects smoke caused by cable melting or terminal contact failures during the early stages of a fire. ※ Requires SKH089PW for operation.

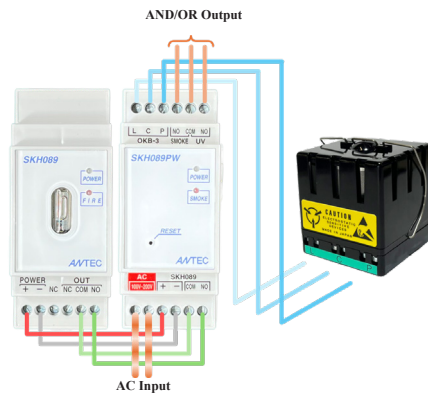
Coated Circuit Board Model



SKH089-C

Special coating applied to the circuit board for use in dusty or humid environments.
※ Made to order.
※ Not resistant to vibrations.

Wiring Example



By supplying AC power (100–220V, 50/60Hz) to SKH089PW, it can power the SKH089 Flame Sensor and up to three 0KB-3 Optical Smoke Detectors.
Sensor outputs can be configured as either AND or OR logic.

Flame Sensor with Automatic Fire Suppression for Power Distribution & Control Panels

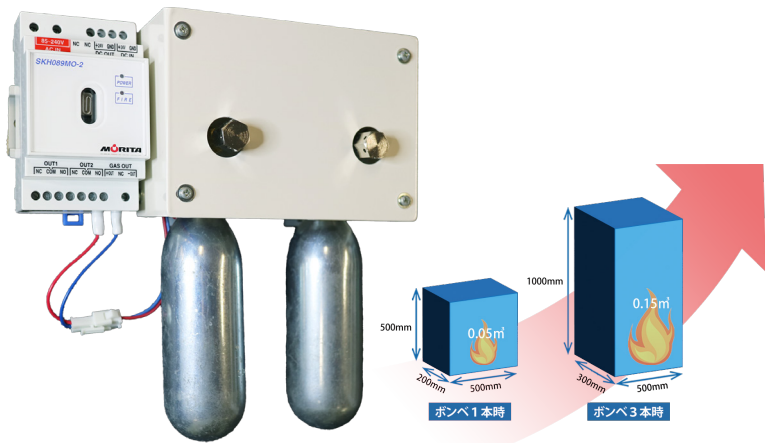
SKH089MO-1 (DC Model)
SKH089MO-2 (AC/DC Model)



Product Specifications

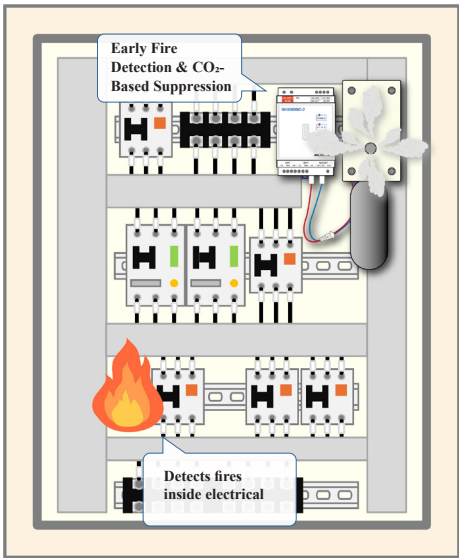
Product Name	Flame Sensor with Automatic Fire Suppression for Power Distribution & Control Panels
Model	SKH089MO-1 / MO-2
Input Voltage	DC 24V (SKH089MO-1) / DC 24V or AC 85–240V (SKH089MO-2)
Wiring	14-pole screw terminal block
Power Consumption	Standby: ≤25mA / Detection: ≤90mA
Operating Temperature	-10°C to +60°C (No condensation)
Detection Method	Ultraviolet (UV) detection (Detection wavelength: 185nm–260nm)
Detection Distance	Detects a 2cm flame at 10m distance
Detection Angle	Detects UV reflections inside power distribution & control panels
Detection Timer Function	Adjustable 0.5s, 1s to 31s (configurable via DIP switch) Factory default setting: 4s
Flame Detection Output	2c relay contact output (AC 250V 5A (resistive load) / DC 24V 5A (resistive load)) / Fire Suppression Activation Output
Alarm Output Hold Function	Output hold time: approximately 30s ※ The alarm output turns OFF about 30 seconds after UV detection stops.
Monitoring Location	Inside power distribution/control panel enclosures (Fixed using DIN rail)
Operating Indicator (LED on device)	Blue LED ON, Red LED OFF: Standby Mode Blue LED ON, Red LED ON: Flame Detected
External Dimensions	W125mm × D90mm × H190mm (for 1-cylinder setup)
Weight	Approximately 1,100g (for 1-cylinder setup)
Casing Material	Flame Sensor: Flame-retardant ABS (UL94) / Activation Device: Steel
Fire Suppression Agent	Carbon Dioxide (CO ₂)
Cylinder Size	C60
CO ₂ Capacity	60g
Protection Volume (Based on Fire Code Standards)	0.05m ³ per cylinder
CO ₂ Concentration 35% Standard (With 1% Safety Margin)	0.086m ³ per cylinder
Maximum Linked Cylinders	Up to 3 cylinders can be linked and activated simultaneously

Overview



Selectable Number of CO₂ Cylinders Based on Panel Size

The system supports up to three fire suppression cylinders, making it adaptable to larger power distribution and control panels.
Both the flame sensor and suppression unit use DIN rail mounting, allowing for smooth and easy replacement.



▲ Suppresses fire quickly with CO₂ gas, minimizing further damage.

Features

✓ Early Detection of Fires Caused by Electromagnetic Contactors

A major cause of factory electrical fires is sparks from electromagnetic contactors (magnetic relays) inside power distribution and control panels.
This system detects flames caused by these sparks at an early stage, preventing fire spread.

✓ Automatic CO₂ Gas Discharge for Rapid Fire Suppression

Immediately discharges CO₂ gas upon fire detection, ensuring fast suppression and preventing fire spread.
CO₂ gas is used as a suppression agent to avoid damage to panel equipment, making recovery quick and easy.
dàng hơn.

✓ Easy DIN Rail Installation

Both the sensor and suppression unit can be easily attached to a DIN rail with a single touch.

✓ Wide Input Voltage Range

Equipped with a switching power supply, allowing operation within AC 85–240V.
Also supports DC 24V external power.
※ AC power is only available for SKH089MO-2.

✓ High-Capacity 2c Relay for Safety Control

The 2c relay contact output allows integration with various systems.
The high-capacity relay can directly shut off power lines, helping to prevent fire escalation.

✓ Configurable Flame Detection Time

Selectable range: 0.5s, 1s to 31s (adjustable in 1-second increments via DIP switch).
※ Power must be restarted for the new settings to take effect.



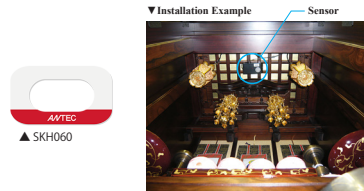
Applied Development Products

Sensor Output Mixer with Built-in Power Supply SKH049



- Conventional fire alarms detect heat or smoke generated by burning materials, meaning they must be installed on the ceiling or near it.
- In contrast, UV-based flame sensors directly detect ultraviolet (UV) rays emitted from flames, eliminating the need for ceiling installation.
- Taking advantage of this feature, we have developed a plug-in flame sensor that can be installed anywhere within the flame's visible range.
- When a flame is detected, the built-in buzzer sounds an alarm.
- The front panel design (currently designed by Kazumasa Uchio) can be customized to suit customer preferences. Company logos can also be added for branding and promotional purposes.

Flame Sensor for Buddhist Altars SKH059AC



- Simply attach the sensor body to the beam inside the Buddhist altar ceiling and plug in the AC adapter to complete the setup.
- Discreet installation ensures aesthetic appeal is maintained.
- Equipped with an ON/OFF switch for easy operation.
- Does not react to candles or incense but will sound an alarm if flames spread to other objects.

Integrated Arson Detection Sensor SKH072



- A fully integrated arson detection sensor designed primarily for outdoor use.
- Detects fires in industrial waste, paper waste, wood scraps, and discarded tires, which are prone to ignition.
- High sensitivity allows it to detect flames instantly when an arsonist lights a lighter or similar ignition source.

Speaker Flame Sensor SKH073



▼ Ceiling Installation



- The flame sensor is integrated into a ceiling-embedded speaker, making it discreet and unnoticeable.
- When detecting flames, the speaker announces a warning message prohibiting fire usage.
- Ideal for public restrooms, department store restrooms, and bedding sections, where flammable items may be present.
- Can also function as a regular speaker.
- Existing speakers can be modified to integrate this sensor upon request.

Arson & Fire Monitoring Sensor: Arrester SKH076



- Built-in voice synthesis unit enables external speakers to announce two types of warning messages when a flame is detected.

- Can activate alarm buzzers, rotating lights, and other connected devices.

Downlight-Type Flame Sensor (Ceiling-Mounted) SKH084

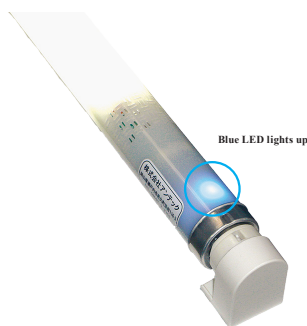


- SKH084 is a simplified version of SKH087, focusing solely on flame detection.
- Like SKH087, it has an adjustable detection angle but does not have an alarm function.

- Designed to look like a downlight, ensuring aesthetic integration with ceilings.
- When a flame is detected, the front panel flashes red, making it easy to confirm activation at a glance.

- Operates with the same specifications as SKH047M.

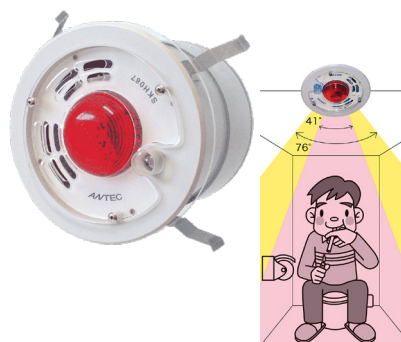
LED Fluorescent Light with Built-in Flame Sensor SKH085



Blue LED lights up

- Blue LED lights up when detecting flames.
- Built-in UV-based flame detection sensor enables fast fire detection.
- Wireless communication eliminates the need for wiring work, making installation easy.
- When a fire is detected:
- Blue LED lights up.
- Wireless transmitter sends a signal to a dedicated receiver.
- Recommended installation: 1 flame sensor per 20-30 LED lights to provide both ECO efficiency and fire prevention in offices and commercial facilities.

Flashlight-Integrated Anti-Tamper Flame Sensor (Ceiling-Mounted) SKH087



- When detecting flames:
- Flashes a built-in strobe light.
- Plays a synthesized voice message prohibiting fire usage.
- Designed for installation in multiple restroom stalls.
- Features adjustable detection angles to ensure accurate flame detection in individual stalls.
- To easily identify which sensor is activated, the front panel flashes red upon detection.

Flame Sensor for Open Terrace Umbrellas SKH092



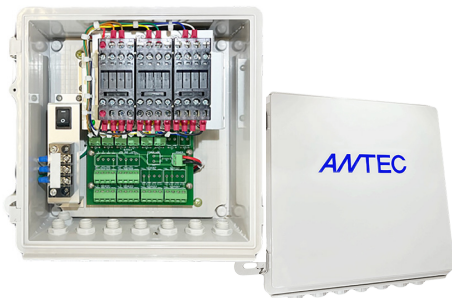
- When detecting flames:
- Flashes a built-in strobe light.
- Plays a synthesized voice message prohibiting fire usage.
- Designed for installation in multiple restroom stalls.
- Features adjustable detection angles to ensure accurate flame detection in each stall.
- Front panel flashes red to indicate which sensor was triggered.

Aggregation System

6-Channel Sensor Aggregator

SKH1070L

▼ Product details



Product Specifications

Product Name	6-Channel Sensor Aggregator
Model	SKH1070L
Input Voltage	AC 85–265V (50/60Hz)
Output Voltage	DC 24V (For sensor power supply)
Maximum Number of Connected Sensors	6 units
Operating Temperature Range	-10°C to +60°C (No condensation)
Input Specification	Screw terminal block
Output Specification	-
Alarm Display Method	-
Alarm Output	-
External Dimensions	W220 × D100 × H220 (excluding protrusions and mounting base)
Weight	Approximately 2.5kg
Casing Material	ABS resin
Compatible Devices	Various flame sensors
Wireless Standard	-

Features

✓ Manages Up to 6 Sensors

Can monitor alert signals from up to six sensors.
Equipped with a self-hold function, which maintains the sensor alert status until the device is restarted.

✓ Power Supply to Sensors from the Main Unit

The built-in switching power supply (SW power) in SKH1070L provides power to up to six sensors. Simply connect the aggregator and sensors via wiring for immediate operation.

✓ Compact Design for Flexible Installation

Housed in a waterproof casing with dimensions W220 × D100 × H220 (excluding protrusions and mounting base).

8-Channel Sensor Aggregator

SKH1070

▼ Product details



Product Specifications

Product Name	8-Channel Sensor Aggregator
Model	SKH1070
Input Voltage	AC 85–265V (50/60Hz)
Output Voltage	DC 12V (for sensor power) / DC 24V (for external devices)
Maximum Number of Connected Sensors	8 units
Operating Temperature Range	-10°C to +60°C (No condensation)
Input Specification	Screw terminal block
Output Specification	Screw terminal block
Alarm Display Method	LED indicators on the main unit (individual for each sensor)
Alarm Output	Relay a-contact output (with self-hold function) *Supports OR output for sensors, includes a self-hold reset switch
External Dimensions	W190 × D310 × H160 (excluding protrusions and mounting base)
Weight	Approx. 2.8kg
Casing Material	ABS resin
Compatible Devices	N/A

Features

✓ Manages Up to 8 Sensors

- Can monitor alert signals from up to 8 sensors.
- Equipped with a self-hold function, maintaining sensor alert status until the reset switch is pressed.
- LED panel display ensures high visibility.

✓ Power Supply to Sensors from the Main Unit

- The built-in switching power supply (SW power) in SKH1070 provides power to up to 8 sensors.
- Simply connect the aggregator and sensors via wiring for immediate operation.

✓ External Output Function

- Equipped with a relay for external output, supporting sensor OR output.
- Includes a DC 24V power supply for driving external devices, allowing direct wiring for seamless integration.

Communication Devices

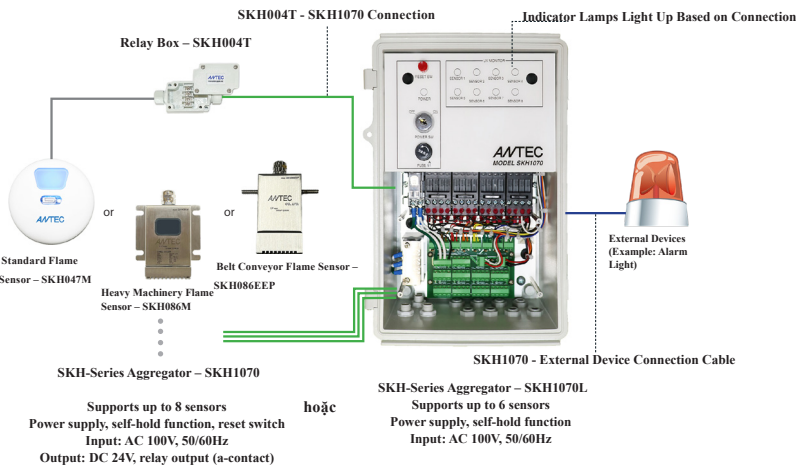
Wireless Transmitter (1km Type) / Wireless Receiver (1km Type) – SKH386T / SKH389R

SKH386T/SKH389R



A long-range wireless transmitter that both powers SKH-series flame sensors and transmits flame detection alerts wirelessly.
Normally supports only one sensor, but can be modified to support up to 8 sensors (modification available only at the time of order).
※ This device cannot be purchased separately; it must be configured as part of a system including sensors, receivers, and display units. Please consult a distributor for system setup.
※ Product appearance and specifications are subject to change without notice.

System Configuration Example



96-Channel Sensor Aggregator

SKH1080

▼ Product details



Product Specifications

Product Name	96-Channel Sensor Aggregator
Model	SKH1080
Input Voltage	AC 85~265V (50/60Hz)
Output Voltage	DC 24V (for sensor power)
Maximum Number of Connected Sensors	96 units (88 units if using output ports)
Operating Temperature Range	-10°C to +60°C (No condensation)
Input Specification	Push-in terminal block
Output Specification	Push-in terminal block
Alarm Display Method	LED indicators on the main unit / Dedicated software (Flame Search v96)
Alarm Output	Open-collector 8-channel (optional)
External Dimensions	W400 × D600 × H185 (excluding protrusions and mounting base)
Weight	Approx. 9.5kg
Casing Material	ABS resin
Compatible Devices	8-Channel Relay Box – SKH1080CB / Dedicated Software – Flame Search v96
Wireless Compatibility	None

Features

✓ Real-Time Bulk Monitoring

Enables real-time centralized monitoring of up to 96 sensors on a computer.

✓ Direct Power Supply from Aggregator to Sensors

The SKH1080 aggregator supplies power directly to each sensor, eliminating the need for an external power source.

Only wiring is required for installation and operation.

✓ External Output Function

Supports up to 8 output ports.

Outputs can be freely configured based on sensor input status.

※ If using output ports, the maximum number of connected sensors is limited to 88 units.

Related Products

8-Channel Sensor Relay Box

SKH1080CB



- A relay box that connects sensors to the 96-channel aggregator SKH1080.
- Once connected, it provides power to the sensors and enables signal output.
- Consolidates multiple sensor wires into a single 12-core cable, simplifying wiring.
- Waterproof design for both the wiring cap and relay box.

Product Specifications

Product Name	8-Channel Sensor Relay Box
Model	SKH1080CB
Input Voltage	DC 24V (Powered by SKH1080)
Output Voltage	DC 24V (For sensor power supply)
Maximum Number of Connected Sensors	8 units
Operating Temperature Range	-10°C to +60°C (No condensation)
Input Specification	Screw terminal block
Output Specification	Screw terminal block
Alarm Display Method	None
Alarm Output	None
External Dimensions	W175 × D125 × H75 (excluding protrusions and mounting base)
Weight	Approx. 560g
Casing Material	ABS resin
Compatible Devices	Various flame sensors / 96-Channel Sensor Aggregator – SKH1080
Wireless Compatibility	None

Sensor Monitoring System

Flame Search v96



The system allows you to visually check sensor operation status using on-screen symbols.

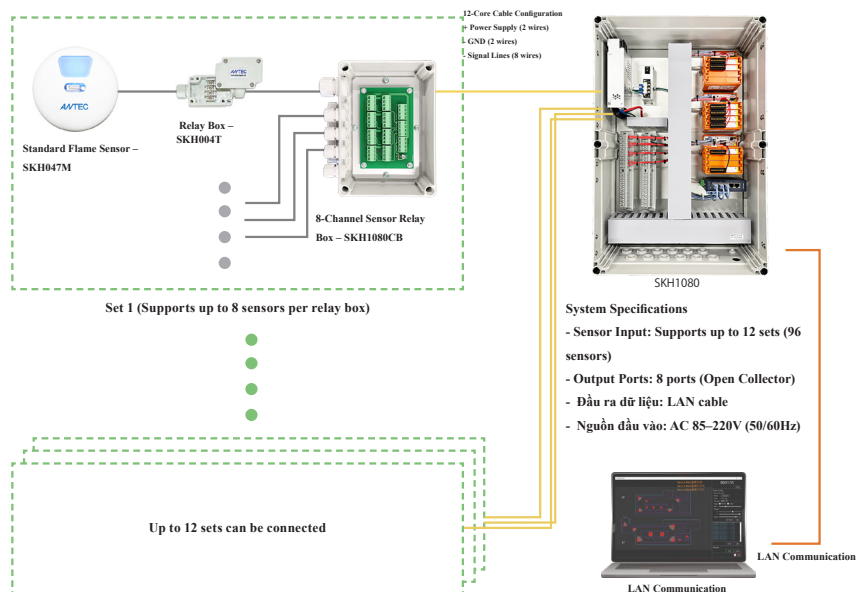
Users can freely adjust the placement, size, and shape of the symbols.

Equipped with:

- Timer countdown that starts simultaneously with sensor alerts.
- Log system to monitor the status of all sensors.

Log data can be sent to the company via email for centralized management.

System Configuration Example





Company Overview

Corporate Philosophy	Our company embraces fire as an ally to build culture, treats fire as an enemy to protect culture, and observes the prosperity and enriched lives of humanity through electronic technology.	
Company Name	Antec Co., Ltd.	
Head Office Location	116-3 Mameda, Oku-cho, Setouchi City, Okayama Prefecture, 701-4254, Japan	Kanto Development Center: YOKOHAMA NIKKO BLDG. 2F, 1-7-1 Ota-cho, Naka-ku, Yokohama City, Kanagawa Prefecture, 231-0011, Japan
Contact Information	TEL (0869) 22-2155 FAX (0869) 22-3141	
	Email: info@antec-shop.net	
	Official Website: https://www.antec-japan.net/	Trung tâm phát triển Kanto: TEL (045)-228-7141 FAX (045)-228-7142
Capital	15 million yen	
Representative Director	Kenji Sueishi	
Founded	September 1991 (as Antec) - May 1997 (as Antec Co., Ltd.)	
Business Activities	Manufacturing & sales of UV-applied devices (flame detection sensors)	
Research Partners	National Institute for Materials Science (NIMS), Super Diamond Group (Yasuo Koide)	
Banking	Chugoku Bank/ Tomato Bank / Bizen Hinase Shinkin Bank / Okayama Shinkin Bank	

Company History

9/1991: Signed a technical agreement with KENWOOD and started business under the trade name "Antec."	Launched SKH087, a speaker and flash-light integrated flame detection sensor. SKH047 was exhibited at the Shanghai Expo (UN/DEVNET Pavilion).
2/1992: Began developing kiln firing support devices, focusing on Bizen ware.	2011 February: Launched SKH087, an anti-vandalism sensor for public restrooms (for NEXCO West Japan).
1/1993: Ra mắt AN1000, thiết bị hỗ trợ nung gốm.	Launched SKH086, a heavy machinery fire detection sensor (for CAT Japan).
1994 January: Launched AN500, a kiln firing support device.	May: Upgraded AN350 and launched AN3500, a special temperature gauge.
May: Launched DTMF401, a wireless data transfer system.	December: The specialized temperature gauge AN350 appeared in the serialized manga "Haruka no Sue" in Weekly Manga TIMES.
1995 February: Launched AN500S, an upgraded kiln firing support device.	
July: Developed a flame detection system and launched AN501, a fuel auto-shutdown device.	5/2012: Launched SKH096, a dedicated controller for heavy machinery fire detection sensors. Launched SKH084, a downlight-type flame detection sensor.
1996 January: Developed AN511 as an improved version of AN501 and launched it.	Developed SKH085, an LED fluorescent lamp-integrated flame detection sensor.
July: Developed and launched AN518, a safety device for multi-burner systems.	2016 November: Nakakogyo launched "Smart Guide", an induction handrail jointly developed with Panasonic.
September: Developed and launched SIT010, a safety device for NTT's communication cable construction work.	December: Developed and launched SKH186T2/SKH186R/SKH186D, a wireless communication system.
November: Developed and launched AN2100, a fuel auto-adjustment device.	Launched SKH086EEP, a flame detection sensor for waste processing centers.
5/1997: Incorporated Antec Co., Ltd.	2017 April: Opened Tokyo Development Office (Shinjuku, Sumitomo Real Estate Nishi-Shinjuku Building, 22F).
1/1998: Developed and launched AN350, a kiln firing support device.	August: Developed and launched SKH286T/SKH286R, a long-range wireless communication system.
1999 April: Developed and launched AN900, a safety device for electric kilns.	October: Launched SKH092, a terrace and parasol-specific flame detection sensor.
August: Began OEM supply of SFK020, an automatic firing device for electric kilns.	December: Launched SKH047MSD, a specialized flame detection sensor for semiconductor manufacturing equipment.
6/2000: Received an award from the Telecommunication Construction Association of Japan for the development of a compact voltage converter.	2018 January: Upgraded SKH047 and launched SKH047M.
2003 June: Developed and launched the SKH045/046 arson detection system.	April: Launched SKH089, a dedicated flame detection sensor for distribution/control panels, and SKH089PW, an expansion output mixer for smoke detectors
July: Developed and launched SOK032, an automatic firing device for electric kilns.	June: Renovated the Okayama headquarters.
November: Developed and launched SKH047/048, an arson detection sensor.	7/2020: Relocated the Tokyo Development Office to Setagaya.
December: Developed and launched AN5500/AN5100, a kiln firing support device.	4/2021: Developed and launched SKH047VPT, an MP3 playback device.
8/2004: Launched SKH053B, a dedicated power supply unit for SKH047/048 sensors.	2022 March: Added coating models to SKH047M and SKH089.
10/2005: Began joint research with the National Institute for Materials Science (NIMS).	November: Relocated the Tokyo Development Office to Yokohama and renamed it Kanto Development Center.
2006 January: Launched SKH049, a fire detection sensor in plug form.	2023 May: Renewed the official website.
Developed ZBZ065/ZBZ066, a fire prevention device using diamond semiconductor ultraviolet sensors, and presented it at NIMS in Tsukuba City.	Upgraded and launched SKH086M, a heavy machinery flame sensor.
Developed ZBZ065/ZBZ066, a fire prevention device using diamond semiconductor ultraviolet sensors, and presented it at NIMS in Tsukuba City.	Developed SKH1080, a 96-channel sensor aggregator.
December: Increased capital to 15 million yen.	
2007 July: Launched SKH072, an all-in-one arson detection sensor.	2024 January: SKH047M was included in the "DX Solution Package" by Aioi Nissay Dowa Insurance.
Launched SKH073, a speaker-type fire detection sensor.	April: Established ANTEC Vietnam (ATV FIRE COMPANY LIMITED).
October: Launched AN3300, a three-unit special temperature gauge for ceramics.	July: Launched SKH089MO-1/MO-2, an automatic fire extinguishing sensor for distribution/control panels.
December: Selected for the Kinki Regional Small and Medium Enterprise Infrastructure Development Organization's Marketing Coordination Project.	October: SKH089MO-1/MO-2 was included in "DX Solution Package" by Aioi Nissay Dowa Insurance.
1/2008: Exhibited at the International Relief & Trade Procurement Conference (UNDP/DEVNET) in Geneva, Switzerland.	SKH047MF obtained FM Approvals certification.
2009 Tháng 3: Launched SKH076, a sensor for signage applications.	
Tháng 10: Launched SKH076, a sensor for signage applications.	1/2025: Launched UV3, an ultraviolet projector.
5/2010: Launched SKH084, a downlight-type flame detection sensor.	



ATV FIRE PRO YouTube Channel

We've launched the ATV FIRE PRO YouTube channel!

Here, we share product introduction videos, testing videos, installation examples, and many other useful contents.

[<= Visit the ATV FIRE PRO YouTube channel here](#)



Diamond Semiconductor UV Sensor

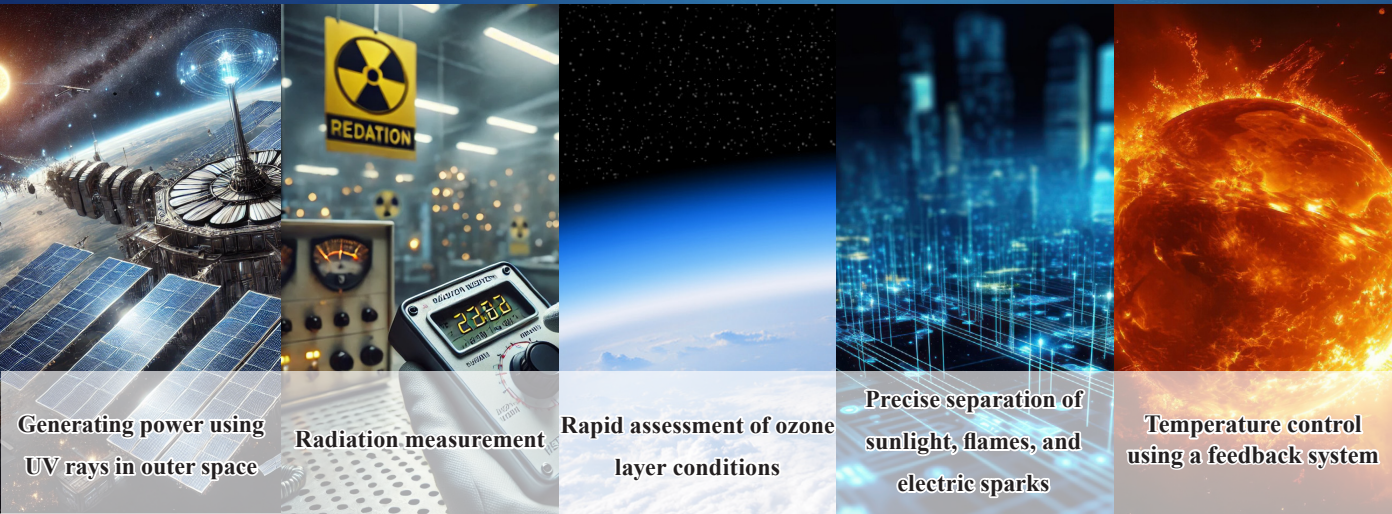
This is the next-generation UV detection sensor co-developed with the National Institute for Materials Science (NIMS) in Japan.

UV-C ultraviolet rays have a wavelength close to X-rays and carry very high energy. When used in environments with continuous UV exposure, most materials degrade, requiring periodic replacement of sensors. However, diamond is resistant to degradation in such environments and offers the following advantages:

- 1/ Compared to traditional UV tube methods, this sensor can output data in analog format, enabling measurement of flame size by volume.
*Helps measure the size of flames by volume.
- 2/ It can withstand high temperatures up to 550°C
- 3/ As a semiconductor, the sensor has superior impact resistance.
- 4/ Developed using plasma discharge, it is not dependent on natural resources



Applications



Head Office / 701-4254
116-3 Mameida, Oku-cho, Setouchi-shi,
Okayama, Japan

Kanto Development / 231-0011
YOKOHAMA NIKKO BLDG. 2F, 1-7-1 Ota-machi, Naka-ku,
Yokohama-shi, Kanagawa, Japan

Cover Illustration

“Kyōei”
(Resonant Recitation)

The ideal of human activity is coexistence and mutual prosperity. Even in places unseen, nature is connected. These thoughts resonate with each other, creating an image of harmonious recitation.

▼ Past Catalog Covers



Kazumasa Uchio

Born in 1959 in Tamano City, Okayama Prefecture. Since the age of 21, he has worked as a freelance illustrator, showcasing his talent in advertisements, games, and films (such as Final Fantasy). He is currently creating a moving picture book, Kitan Shirube, as his life's work.