

## Product Overview

VFD/SFH-MA-DG06 is an intelligent dual-spectrum video fire detector integrating **HD visible light** and **uncooled infrared thermal imaging**, with built-in dual-light fusion and real-time video output.

Driven by a high-performance AI processor and deep learning algorithms, it quickly identifies fire signatures in complex scenes, minimizes false alarms from light/motion interference, and supports on-site audible-visual alarms, alarm snapshots, fire controller connectivity and system linkage. It is specially designed for early fire warning in large and open spaces.

### Typical Applications:

Shopping malls, warehouses, coal yards, waiting rooms, cinemas, stadiums, ancient buildings, hangars, oil tanks, power/petrochemical/metallurgical facilities and other large/open spaces.



## Key Features

- Dual-spectrum (visible + thermal) imaging with real-time fusion
- AI-based multi-dimensional fire detection: **flame, smoke, temperature**
- Non-contact detection, fast response, low false alarm rate
- Resistant to air currents, smoke barriers, and air barriers
- Embedded high-performance AI processor, low power consumption
- Support customizable detection zones and sensitivity levels
- HD video encoding (H.264/H.265) & alarm snapshot
- On-site audible/visual alarm + relay output for system linkage
- Dual network: RJ45 (100m) & single-mode fiber (up to 25km)
- Wide voltage input: 12–32VDC & PoE
- IP66, -40°C to +70°C operating temperature, ESD Level 3 protection
- FM Approved to standard **FM 3232**

## Main Functions

**Flame Alarm:** AI image algorithm conducts multi-dimensional analysis of flame shape, flicker frequency and temperature features, realizing non-contact rapid identification with low false alarms.

**Smoke Alarm:** Built-in deep learning model captures early combustion smoke characteristics, triggering pre-warning ahead of open flame.

**Temperature Alarm:** Infrared real-time temperature monitoring, supporting spot/line/area over-temperature and rate-of-rise alarms.

**Fault Alarm:** Automatically detects lens occlusion, image abnormality and communication faults, uploading real-time fault prompts.

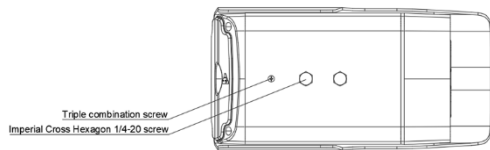
**Dual-Light Fusion:** Synchronous dual-spectrum video display, complementing visible and thermal imaging to boost detection accuracy.

**Web Configuration:** Built-in web GUI supports custom shielding zones, alarm sensitivity and linkage rules with simple operation.

## Technical Specifications

Item	Specification Details
<b>Thermal Imaging Sensor</b>	Uncooled VOx FPA; Resolution: 384×288; Temp Range: -20°C~+150°C; Lens: 6.3mm; Spectral Band: 8-14μm
<b>Visible Light Sensor</b>	2MP 1/2.8-inch CMOS; Resolution: 1080P (1920×1080); Lens: 6mm F1.8; FOV: 40°(H)×28°(V)
<b>Detection Performance</b>	Flame/Smoke Detection Distance: 5-40m; Fast early fire identification
<b>Electrical Parameters</b>	Power Supply: DC12-32V + PoE; Power Consumption: ≤5W
<b>Environmental &amp; Mechanical</b>	Operating Temp: -40°C~+70°C; Protection: IP66; Dimensions: 245×125×99mm; Weight: 1.9kg; Mount: 1/4-inch standard interface
<b>Communication &amp; Video</b>	Compression: H.264/H.265; Interface: RJ45 / Single-mode SC fiber; Protocols: RTSP, TCP/IP, DHCP
<b>Alarm &amp; I/O</b>	3-channel relay output (30V/2A); Built-in buzzer & status indicators

## Installation

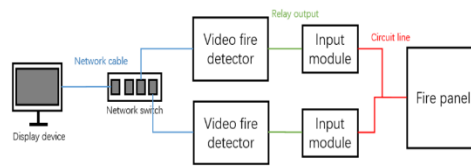


- 1) Choose a wall, install an appropriate bracket, ensuring no obstructions in the monitoring area.
- 2) Fix the detector to the bracket.
- 3) Connect the detector's fiber, power supply, and ground wire.
- 4) After powering on, adjust the detector angle according to the video is centered in the camera's view and perform ground coordinate calibration.
- 5) Tighten the screws to reliably secure the detection part.



Accessory Part	Application & Feature Description
<b>Duckbill Bracket</b>	Standard fixed bracket, suitable for wall mounting on flat vertical surfaces; stable structure, easy to install and adjust angle, compatible with 1/4-inch PTZ interface
<b>L-Type Bracket</b>	Right-angle design bracket, ideal for wall-ceiling corner installation and vertical wall mounting; enhances installation stability, adapts to narrow and corner spaces
<b>Universal Joint Bracket</b>	Multi-angle adjustable bracket, supports 360° rotation and pitch angle fine-tuning; suitable for complex installation environments, flexible aiming at detection areas

## System Wiring



## Standards

FM 3230: Video Image Fire Detectors for Automatic Fire Alarm Signaling

## Approvals and Listings

FM

## Compatibility

- System Compatibility:** Compatible with standard fire alarm controllers, supports relay linkage with fire alarm systems
- Protocol Compatibility:** Compliant with TCP/IP, RTSP and other standard network protocols, adaptive to H.264/H.265 encoding
- Hardware & Interface Compatibility:** Matches standard 1/4-inch mounting brackets, compatible with DC12-32V power and PoE switches
- Network Compatibility:** Supports RJ45 Ethernet and single-mode fiber (max 25km) transmission

## Ordering Information

Model	Ordering Code	Description	Listing	UOM	COO	MOQ	MPQ
VFD/SH-MA-DG06	VFD/SH-MA-DG06	VIDEO FIRE DETECTOR	FM	ea	China	1	1
VF-WMBD	VF-WMBD	WALL-MOUNTED: DUCKBILL BRACKET		ea	China	1	1
VF-CMLB	VF-CMLB	CEILING-MOUNTED: L-TYPE BRACKET		ea	China	1	1
VF-UJ	VF-UJ	BASE-MOUNTED: MEDIUM UNIVERSAL JOINT		ea	China	1	1