DHI-HY-IFUV43DA-EX

Point-type Infrared and Ultraviolet Flame Detector

- High sensitivity and lower false alarm: IR and UV composite detection, multi-band intelligent flame recognition algorithm, higher sensitivity, greatly reducing false alarms caused by sunlight and high temperature radiation
- Large detection range: maximum detection distance is greater than 60 m (@0.1m² n-heptane fire), field of view -- 120°
- Strong targeting: Compared with point-type infrared flame detectors, it has higher sensitivity to flames emitted by burning substances such as hydrogen, metal magnesium and aluminum
- Rich interfaces: RS-485, fire bus, 4-20mA current loop, multi-channel relay output, can be linked to NVR, camera

System Overview

The point type IR/UV flame detector uses two low-noise infrared pyroelectric sensors, an UV sensor and a high-speed microprocessor. Through the FFT processing algorithm and optical path self-check algorithm, only radiation that meets the flame characteristics will be identified as a fire alarm. The UV sensor is particularly sensitive to metal combustion and hydrogen combustion, and has good anti-interference ability and a longer flame detection distance. Once a flame is detected, it will immediately alarm and report to the IoT platform through the fire alarm control panel, and at the same time link the relay to output a control signal.

Scene

This detector is suitable for the scene of rapid fire and easy to explode, such as chemical factory, pharmaceutical factory, printing factory, aerospace and aviation fuel area, automobile manufacturing, painting room, rubber factory, aircraft manufacturing, metallurgical factory, etc. Especially suitable for the scene that may be caused by the combustion of hydrogen, metal magnesium and aluminum, etc.

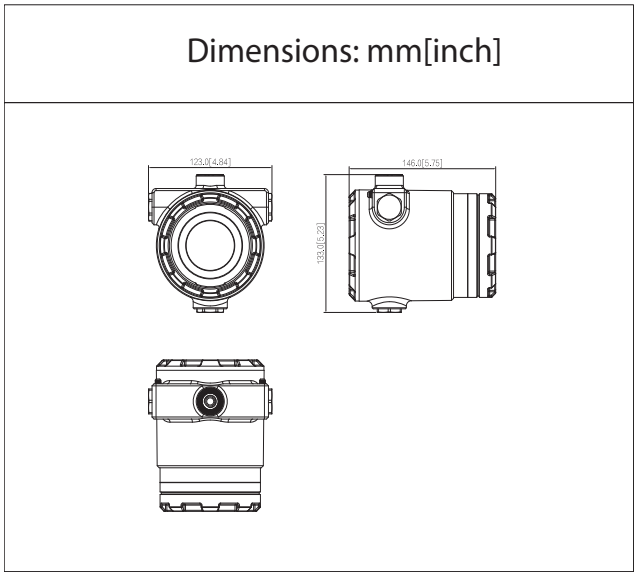
Technical Specification

Function	
Collection Type	Flames
Sensor Type	Pyroelectric sensor: 3.8μm, 4.4μm UV sensor: 185nm-260nm
Detection Range	N-heptane: 60 m@0.3 m x 0.3 m Gasoline: 55 m@0.3 m x 0.3 m Alcohol: 50 m@0.3 m x 0.3 m
Detection Sensitivity	Level 1-5 adjustable
Response Time	< 10 s (alarm delay: 0–30 s settable)
Angle of View	Horizontal: 120° Vertical: 120°
Indicator Light	Alarm: Red indicator remains lit Fault: Red indicator flashes Working: Green indicator flashes
Output Port	1 x RS-485 1 x fire bus 1 x 4–20 mA current-loop 3 x relay outputs: 1 x fire alarm, 1 x fault, 1 x auxiliary
Relay Output	Contacts rated 1A at 30 VDC
Power Supply	
Operating Voltage	24 VDC
Power Consumption	< 1W
Environment	
Operating Temperature	–25°C to +75°C (–13°F to +167°F)
Storage Temperature	–40°C to +80°C (–40°F to +176°F)
Operating Humidity	≤95% RH (non condensing)
Protection	IP66

Detector | DHI-HY-IFUV43DA-EX

Construction	
Dimensions	146 mm × 123 mm × 133 mm (5.75" × 4.84" × 5.24")
Weight	1.55 kg (3.42 lb) (without installation bracket)
Conduit Entry Size	M20
Color	Reddish black
Casing Material	Aluminum alloy (ADC12)
Explosion-proof Approvals	ATEX: II 2 G Ex db IIC T6 Gb II 2 D Ex tb IIIC T80°C Db IECEx: Ex db IIC T6 Gb Ex tb IIIC T80°C Db (-25°C≤ Ta≤ 75°C)
Certifications	CE, UKCA

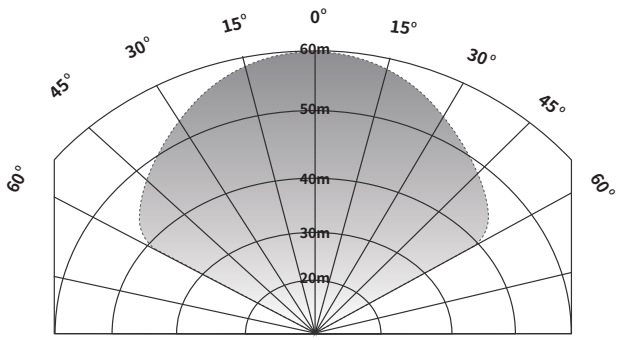
Dimensions (mm/inch)

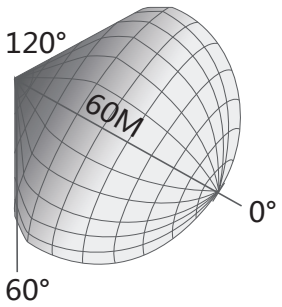


Ordering Information

Type	Model	Description
Point Type IR/UV Flame Detector	DHI-HY-IFUV43DA-EX	IR/UV Flame Detector

Field of View





Installation