

DHI-HY-IF43DA-EX

Point-type Infrared Flame Detector



System Overview

The point-type infrared flame detector uses a three-band low-noise infrared pyroelectric sensor and a high-speed microprocessor. Through the FFT processing algorithm and the optical path self-check algorithm, only radiation that meets the flame characteristics will be identified as a fire alarm. The detector 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 petrochemical tank areas/storage and transportation facilities, oil and gas pipelines, steam engine rooms, boiler rooms, coal bunkers, nuclear power plants, metallurgical plants, wineries, etc.; monitoring large areas with potential fire hazards, such as automobile manufacturing, painting room, rubber factory, pharmaceutical factory, highway tunnels, ship decks, storage warehouses, etc.

- High sensitivity: multi-band intelligent flame recognition algorithm, composite analysis of flame signals, alarm signal issued in as fast as 4 seconds, more sensitive, lower false alarm rate
- Large detection range: maximum detection distance greater than 60 m (@0.1m² n-heptane fire), field of view -- 110°
- Rich interfaces: RS-485, fire bus, 4-20mA current loop, 3 relay output, can be linked to NVR and camera

Technical Specification

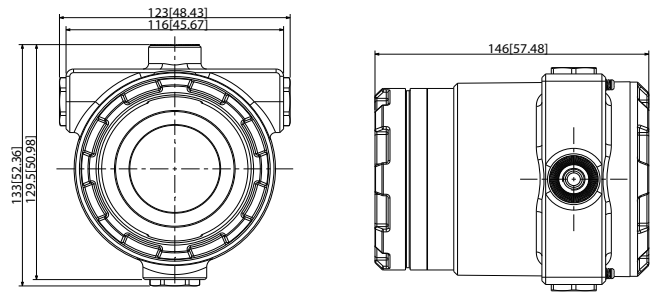
Function	
Collection Type	Flames
Sensor Type	Pyroelectric sensor: 3.8μm, 4.4μm, 5.3μm
Detection Range	N-heptane: 60 m@0.3 m x 0.3 m Gasoline: 55 m@0.3 m x 0.3 m Alcohol: 50 m@0.3 m x 0.3 m
Detection Sensitivity	Level 1-5 adjustable
Response Time	< 10 s (alarm delay: 0-30 s settable)
Angle of View	Horizontal: 110° Vertical: 110°
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-IF43DA-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

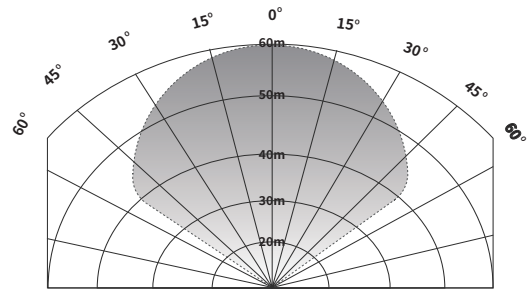
Dimensions (mm/inch)



Ordering Information

Type	Model	Description
Point Type IR Flame Detector	DHI-HY-IF43DA-EX	IR Flame Detector

Field of View



Installation

