

UV-IR / UV-IR-HD

FLAME DETECTORS



IEP TECHNOLOGIES
HOERBIGER Safety Solutions

PRODUCT INFORMATION SHEET

Description

The FlameSpec UV-IR and UV-IR-HD flame detectors provide ultra-fast response, high performance and reliable detection of a large variety of fires including hydrocarbon fires (visible and non-visible), hydrogen and methane/hydrogen mixed fires. These flame detectors are designed to respond in milliseconds to the ultraviolet and infrared light emitted from a flame source. When used in conjunction with an IEP Technologies control unit, UV/IR Flame Detectors provide the signal required to activate a deflagration protection system. The primary application for these detectors is for the protection of occupied areas having flammable gas or vapor hazards.

These detectors address fast-burning as well as slow-growing fire using improved UV-IR technology operating in all weather and light conditions.

The UV-IR-HD detector provides a high-definition (HD) color video output of the monitored area with clear imaging of fire events. Video and data of events are quickly stored to non-volatile memory. The recordings, which capture one minute before the event and continue for up to four minutes, can be used for post-incident investigation. In addition to videos, alarms, faults and other relevant events are logged to non-volatile memory.

Features

- High immunity to False Alarm
- Hydrocarbon and non-hydrocarbon flame detection
- Ultra-fast detection within 5 milliseconds
- HD or composite video output with automatic recording of fire events
- Data/Event logger: Alarms, faults & videos
- Built-in-Test (BIT) – Automatic and manual self-test of window cleanliness and overall detector operation
- Window heater to avoid condensation and icing
- Stainless steel tilt mount

Flame Detectors



UV-IR



UV-IR-HD

Application

UV-IR detectors are typically used in hydrocarbon charging and pump rooms, where the ignition of a localized vapor cloud can result in a deflagration. The UV-IR detector senses the incipient deflagration within milliseconds, sending a signal to an associated control panel to activate a suppression system.

Specifications

Parameter	Value
Built in Test (BIT)	Automatic or Manual
Operating Voltage	UV-IR: Standby 120 mA, Max 180 mA (with Heaters) UV-IR-HD: Standby 180 mA, Max 300 mA (with Heaters) Conduit Options: ¾" NPT(F) or M25 x 1.5
Size mm (in)	UV-IR: 140x90x90 (5.51x3.54x3.54) UV-IR-HD: 200x130x130 (7.87x5.12x5.12)
Weight w/ bracket kg (lbs)	UV-IR: 4.5 (9.9) UV-IR-HD: 6.8 (15.2)
Operating Temp °C (°F)	-55 to 85 (-67 to 185)
Humidity	Up to 99% RH, non condensing
Ingress Protection	IP66, NEMA 4X
Hazloc	ATEX: II 2 G D Ex db IIC T5 Gb or Ex db eb IIC T5 Gb and Ex tb IIIC T95°C Db -55°C<Ta<75°C Ex db IIC T4 Gb or Ex db eb IIC T4 Gb and Ex tb IIIC T105°C Db -55°C<Ta<85°C Ex db IIC T5 Gb -50°C≤Ta≤75°C Ex db IIC T4 Gb -50°C≤Ta≤85°C Class I, Div. 1, Groups B, C & D; T4 Class I, Zone 1, AEx/Ex db IIC T4 Gb T4 -50°C≤Ta≤85°C T5 -50°C≤Ta≤75°C 1Ex d IIC T5 Gb or 1Ex de IIC T5 Gb and Ex tb IIIC T95°C Db -55°C≤Ta≤75°C 1Ex d IIC T4 Gb or 1Ex de IIC T4 Gb and Ex tb IIIC T105°C Db -55°C≤Ta≤85°C Complies to SIL2, per IEC 61508
UV-IR-HD Video Functionality	Video: HD, Color Recording: 1-minute pre-event, 3 minutes post-event System integration Protocol: ONVIF (Open Network Video Interface Forum) Profile S

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