TELEDYNE GAS AND FLAME DETECTION
Everywhereyoulook™

Spyglass™ SG50-F Series

Flame Detectors

The Spyglass™ family of triple IR and UV-IR flame detectors provide top-tier optical flame detection with faster detection time and performance over long distances. Spyglass™ flame detectors also have industry leading false alarm immunity to several challenging environments while performing in adverse climates. All of the Spyglass™ family are available with the option to choose built in high definition video which allows users to make critical safety decisions from a distance.

Spyglass™ SG50-F Series

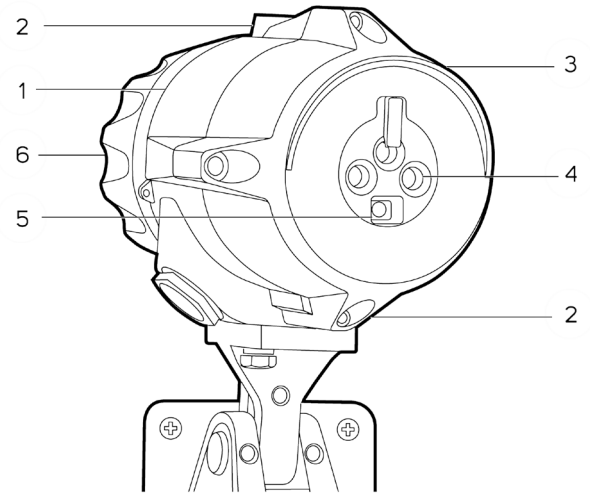
Flame Detectors

Spyglass™ SG50-F Series are designed to provide superior performance for a wide variety of fires in a rugged, durable housing.
The option of built-in video gives the ability to see and record fires without being on the scene.

Small size and affordable costs along with state of the art features make the Spyglass a desirable tool for anyone concerned about fires in their facilities.

Why Spyglass™ Flame Detectors

- Global approvals including FMus, FMc, ATEX, IECEx, and UKEX
- SIL2 Certified
- Long detection distances, low false alarms
- Ability to detect difficult fires including:
  - Alternate Energy Fuels
  - Munitions
  - Arcs/Sparks in windmills
  - Hot exhaust of engines such as helipads
  - NFPA33 standard
- Available with multiple outputs including:
  - 0 - 20mA
  - Modbus
  - HART
  - Fire, Fault, & Auxiliary relays



Mechanical Design

1. 316 Stainless Steel Housing with Electro-Polish finish
2. Easy retrofit to existing mounts
3. Precipitation lip
4. Individually machined Sensor Aperture for maximum signal accuracy reducing interference
5. Integrated HD Camera (only on -V models)
6. Integrated Terminal Connections separated and hermetically sealed from the main enclosure NEMA 4X/6P

Spyglass™ Flame Detectors with Integrated High-Definition video

High-Definition (HD) Camera allows clear imaging of fire at 100 ft. (30m) distance. Connecting to a video system allows remote verification of fire, allows the first responders to be aware of the exact situation before entering the hazardous area, and can be used for post-fire analysis of the cause of the fire. Video recording of 1 minute pre-event and up to 3 minutes post-event is captured by the detector.

Video units are available with either color or near-infrared video. Color is best for hydrocarbon fires and to give a realistic view. Some fires from fuels such as hydrogen and alcohol can be virtually invisible to the human eye, and also do not show up well on color video. Near-infrared video is best for these hard to see fires as it more clearly shows the extent of the flames.

High Definition Video

- Color or near-infrared
- Real-time Information
- Remote monitoring of un-manned locations
- Review fire causes and responses
- Remove uncertainty of releasing suppression systems

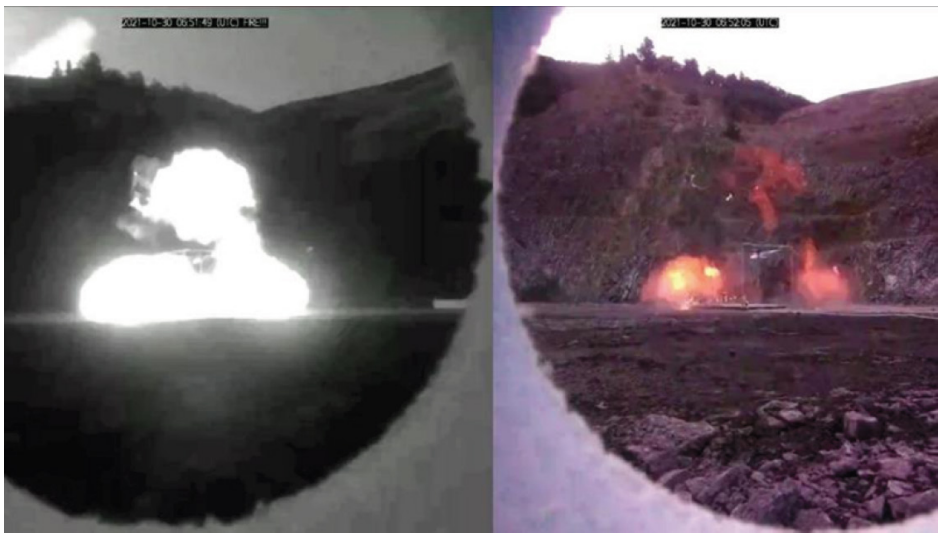


Image of the same hydrogen explosion taken from a near-infrared and a color video

Triple Infrared Technonolgy

- Long detection distance
- Sensitivity to small fires
- Immunity to false alarms

Spyglass™ IR3
Detecting hydrocarbon fires

Spyglass™ IR3-H_2
Detection of hydrogen flames, ammonia, silane ...

Ultraviolet and Infrared Technology

- Proven technology
- Metal fire detection
- Indoor installation

Spyglass™ UV-IR -F
Detecting hydrocarbon fires

Spyglass™ UV-IR
Detection of hydrogen flames, metal and inorganic flames

Xtend

The use of triple infrared technology combined with a specific algorithm enables Spyglass™ IR3 H_2 Xtend to simultaneously detect hydrogen flames and those from hydrocarbon fires. Hydrogen flame detection performance remains identical to that of the version of Spyglass™ IR3-H_2 dedicated exclusively to hydrogen.

Typical applications: electrolyser, hydrogen station, SMR, dense industrial areas with potential hydrogen flames.

Hot CO_2 Rejection

The CO_2 rejection option, available with IR3 HC technology, offers fast, reliable detection on a wide range of hydrocarbon fires where combustion exhaust gases may be present. As well as detecting actual fires, the detector analyzes and rejects any false signal from hot CO_2 exhaust.

Typical applications: aircraft hangars, civil or military, heliports, areas with heavy automotive activity (such as tunnels or loading bays).

Ultra Fast

The NFPA33-specific detector has been optimized for ultra-fast fire detection in high-speed production processes. The detector is designed to meet the NFPA33 standard, which requires the detector to trigger an alarm in the event of an event in less than 0.5 seconds. The range of performance-tested and approved detectors is available in UVIR, IR3 and IR3-H_2 configurations.

Typical applications: spray booths for the automotive industry, high-speed printing and coating, conveyors and fast-moving vehicles.

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Flame Detectors

Accessories

Flame Simulator

Flame simulators are available for the IR3, IR3-H_2, and UV-IR video and non-video flame detectors. These ATEX approved flame simulators mimic the radiation and flicker of an actual fire to test the flame detectors. All flame detectors also include a built-in-test (BIT) feature that allows self-testing by the detectors.

Air Shield Assembly

Optical flame detectors are often used in highly polluted or dirty areas, where maintenance personnel are forced to access the detector frequently to clean its optical window. The SP-F-AIRSHIELD-x air shield, has been specifically developed for Spyglass™ Flame Detector series of optical flame detectors, allowing the detector to be installed under tough environmental conditions, where they may be exposed to oil vapors, sand, dust, and other particulate matter.

Tilt Mount Assembly

Spyglass™ Flame Detector tilt mount adaptor enables wall or pole mounting of both Standard and HD Flame Detectors. Wall mount option gives >90° lateral movement and 75° Vertical movement for exceptional mounting flexibility.

Weather Cover Assembly

Weather shield provides additional environmental protection against rain, snow and sun. Mounts directly to the top of the detector. 316 stainless Steel construction for long life in all environments.

Pole Mount Assembly

The pole mount enables installing the detector with its mounting bracket. Stainless Steel construction for long life in all environments.

USB Adapter

USB/RS485 converter kit for connection of detector RS485 output to PC/Laptop for use with Communicator Software.

Approvals

Explosion proof

ATEX, IECEX, UKEX: II 2 G D

FMus & FMc
Class I, Div. 1, Groups B, C & D; T4

Please contact us for other certifications including INMETRO and PESO.

**not available on all options*

Performance

ANSI FM 3260 / EN54-10*

Functional safety

Certified to SIL2, per IEC 61508

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