



**Multi-Spectrum  
Digital Electro-Optical  
Flame Detectors**

# Fire Sentry SS2 Detectors



## Features

### Fire Sentry SS2-A and SS2-AN:

- Multi-Spectrum senses ultraviolet, visible and WideBand IR™
- Detects Hydrocarbon and non-Hydrocarbon based fires
- Wide field of view and solar blind
- Greatest sensitivity with false alarm immunity
- Microprocessor based algorithms: FirePic™ and Tri-Mode Plot™
- Wide temperature range of operation
- Explosion-proof housing
- Proven in Worldwide applications
- Compatible with approved fire alarm panels

### Fire Sentry SS2-AM and SS2-AML:

- Multi-Spectrum senses ultraviolet, visible and WideBand IR™
- Detects Hydrocarbon and non-Hydrocarbon based fires
- Wide field-of-view and solar blind
- Greatest sensitivity with false alarm immunity
- Microprocessor based algorithms: FirePic™ and Tri-Mode Plot™
- Wide temperature range of operation
- Explosion-proof housing
- Ultra-high speed response to explosive fires

## Applications

### Fire Sentry SS2-A and SS2-AN:

- Petrochemical facilities and refineries
- Co-generation plants
- Aircraft hangars
- Silane gas storage
- Gas turbines and power plants
- Gas compressor stations

### Fire Sentry SS2-AM and SS2-AML:

- Munitions production
- Explosives production
- Manufacture of other explosive materials
- Silane and Hydrogen gas storage
- Special applications

**The Fire Sentry SS2 represents the World's pre-eminent UV/IR technology for Electro-Optical Flame Detectors with thousands successfully operating in a multitude of installations Worldwide. These Multi-Spectrum detectors sense radiant energy in the ultraviolet (UV), visible and WideBand Infrared™ (IR) spectrum. The radiant energy from all types of flaming fires will alert the detectors to their presence.**

The Fire Sentry SS2-AM and Fire Sentry SS2-AML are the ultra-high speed digital Multi-Spectrum optical models of the Fire Sentry SS2 UV/IR flame detectors. These detectors feature ultra-high speed responses to explosive fires and are typically used in munitions production, explosives production and special applications.

The field of view for the Fire Sentry SS2 detectors is the widest in the industry with a 120° cone of vision. This means more hazardous areas can be covered by each detector. Greater sensitivity also increases the volume covered by each detector, up to four times more than some other detectors.

Using sophisticated microprocessor signal processing algorithms with complete spectrum information, virtual immunity to false alarms from arc welding, corona discharge and other common UV sources is achieved.

### Operation

The Fire Sentry SS2 detectors operate from standard 24 Volt DC power and interface to approved fire alarm panels or standard PLCs. When power is applied, a self-test is performed and the fault relay resets to show no faults. The front LED lights flash every ten seconds to indicate power is on.

The continuous spectral data stream of information from the sensor array is analysed by the microprocessor. On alarm, the detector activates the alarm relay and stores all the pre-fire spectral data in non-volatile memory for retrieval and evaluation. This FirePic™ data can be used to postulate the cause of the fire.

Fire Sentry SS2 can be connected to standard control panels and PLCs to initiate alarms and mitigation processes as required.



# Fire Sentry SS2 Specifications

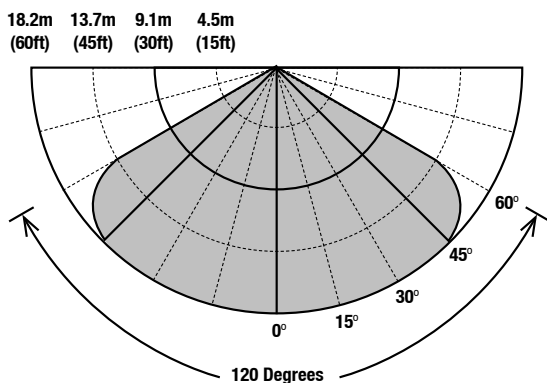


Fire Sentry SS2-A and SS2-AN General Specifications	
<b>Sensitivity</b>	18.2m (60 ft.) to a 0.1m <sup>2</sup> (1 sq ft) n-Heptane fire
<b>Response Time</b>	2-5 seconds to 0.1m <sup>2</sup> (1 sq. ft.) of n-Heptane fire at 18.2m (60 ft.)
<b>Field of View</b>	120 degrees cone of vision (60 degrees from on axis)
<b>Spectral Sensitivity</b>	Ultraviolet: 185 to 260 nanometers Wide Band Infrared: 0.7 to 3.5 micrometers Visible: 400 to 700 nanometers
<b>Input Power</b>	24 Vdc nominal (20.5 to 34 Vdc)
<b>Power Consumption</b>	56 mA normal operation 68 mA alarm condition
<b>Output Relays</b>	<b>Fire Alarm Relay:</b> NO and NC contacts Latching / Non-Latching, factory set Normally de-energised <b>Fault Relay:</b> NO and NC contacts Normally energised Relay contact ratings: 0.5A at 120 VAc, 1.0A at 24 Vdc
<b>Operating Temperature</b>	-40°C to 85°C (-40°F to 185°F)
<b>Humidity Range</b>	0 to 98% RH, non-condensing
<b>Vibration</b>	MIL.STD.810C
<b>Weight</b>	1.7kg (3.8 pounds) - Aluminum 3.4kg (7.6 pounds) - 316 Stainless Steel
<b>Housing</b>	Copper-free aluminum (less than 0.4%) powder coated NEMA4, NEMA4X-IP66, tamper resistant with integral dual M25 or 3/4" NPT conduit openings 316 Stainless steel housing available
<b>Electrical Certifications</b>	ATEX, IECEx II 2 GD Gas: Ex d IIC T4(Ta: -40°C to + 110 °C), T5 (Ta: -40°C to + 75°C), T6 (Ta: -40°C to +60°C) Gb Dust: Ex tb IIIC IP66 T 135°C Db
<b>Mounting</b>	Swivel bracket assembly (SM4-optional); 316 Stainless Steel
<b>Warranty</b>	Two years from factory shipping date

Fire Sentry SS2-AM and SS2-AML General Specifications	
<b>Sensitivity</b>	18.2m (60 ft.) to a 0.1m <sup>2</sup> (1 sq ft) n-Heptane fire
<b>Response Time</b>	3.9 milliseconds to explosive fire
<b>Field of View</b>	120 degrees cone of vision (60 degrees from on axis).
<b>Spectral Sensitivity</b>	Ultraviolet: 185 to 260 nanometers Wide Band Infrared: 0.7 to 3.5 micrometers Visible: 400 to 700 nanometers
<b>Input Power</b>	24 Vdc nominal (20.5 to 34 Vdc)
<b>Power Consumption</b>	56 mA normal operation 68 mA alarm condition
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## Maximum Sensitivity

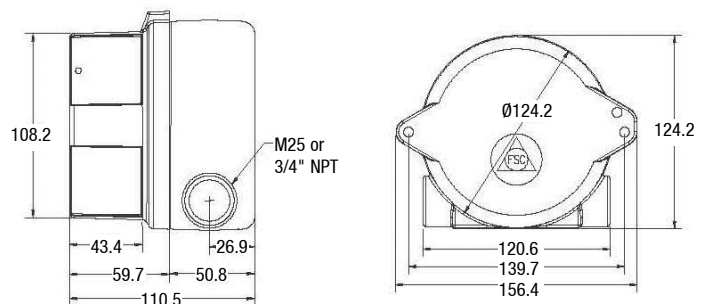
Field of View, Horizontal and Vertical Sensitivity to a 0.1m<sup>2</sup> (1 sq ft) n-Heptane fire



## General Dimensions

Side and Back Views

(All Dimensions in mm unless otherwise stated)



# Our Product Range



## Fixed Gas Monitoring

Honeywell Analytics offers a wide range of fixed gas detection solutions for a diverse array of industries and applications including: Commercial properties, industrial applications, semiconductor manufacturers, energy plants and petrochemical sites.

- » Detection of flammable, Oxygen and toxic gases (including exotics)
- » Innovative use of four core sensing technologies – paper tape, electrochemical cell, catalytic bead and infrared
- » Capability to detect down to Parts Per Billion (ppb) or Percent by Volume (%v/v)
- » Cost effective regulatory compliance solutions

## Portable Gas Monitoring

When it comes to personal protection from gas hazards, Honeywell Analytics has a wide range of reliable solutions ideally suited for use in confined or enclosed spaces.

These include:

- » Detection of flammable, Oxygen and toxic gases
- » Single gas personal monitors – worn by the individual
- » Multi-gas portable gas monitors – used for confined space entry and regulatory compliance
- » Multi-gas transportable monitors – used for temporary protection of area during site construction and maintenance activities

## Technical Services

At Honeywell Analytics, we believe in the value of great service and customer care. Our key commitment is providing complete and total customer satisfaction. Here are just a few of the services we can offer:

- » Full technical support
- » Expert team on hand to answer questions and queries
- » Fully equipped workshops to ensure quick turnaround on repairs
- » Comprehensive service engineer network
- » Training on product use and maintenance
- » Mobile calibration service
- » Customised programmes of preventative/corrective maintenance
- » Extended warranties on products

### Find out more

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

### Contact Honeywell Analytics:

#### Europe, Middle East, Africa, India

Life Safety Distribution AG  
Javastrasse 2  
8604 Hegnau  
Switzerland  
Tel: +41 (0)44 943 4300  
Fax: +41 (0)44 943 4398  
India Tel: +91 124 4752700  
[gasdetection@honeywell.com](mailto:gasdetection@honeywell.com)

#### Americas

Honeywell Analytics Inc.  
405 Barclay Blvd.  
Lincolnshire, IL 60069  
USA  
Tel: +1 847 955 8200  
Toll free: +1 800 538 0363  
Fax: +1 847 955 8210  
[detectgas@honeywell.com](mailto:detectgas@honeywell.com)

#### Asia Pacific

Honeywell Analytics Asia Pacific  
#701 Kolon Science Valley (1)  
43 Digital-Ro 34-Gil, Guro-Gu  
Seoul 152-729  
Korea  
Tel: +82 (0)2 6909 0300  
Fax: +82 (0)2 2025 0329  
[analytics.ap@honeywell.com](mailto:analytics.ap@honeywell.com)

### Technical Services

EMEA: [HAexpert@honeywell.com](mailto:HAexpert@honeywell.com)  
US: [ha.us.service@honeywell.com](mailto:ha.us.service@honeywell.com)  
AP: [ha.ap.service@honeywell.com](mailto:ha.ap.service@honeywell.com)

[www.honeywell.com](http://www.honeywell.com)

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We Save Lives

