SS2-AM & SS2-AML Ultra-High Speed Digital Multi-Spectrum™ Optical Fire Detector

SS2-AM

Features

- Multi-Spectrum senses ultraviolet, visible and Wide Band Infrared™
- Detects hydrocarbon and non-hydrocarbon based fires & explosions
- 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
- FS2000™ System compatible or stand alone operation
- Ultra-High speed response to explosive fires

Applications Include:

- Munitions Production
- Explosives Production
- Manufacture of other explosive materials
- Silane & Hydrogen Gas Storage
- Special Applications

The model SS2-AM and AML represents the world's pre-eminent UV/IR technology for Electro-Optical Flame Detectors with thousands successfully operating in a multitude of installations worldwide. This Multi-Spectrum Detector senses radiant energy in the ultraviolet (UV), visible, and Wide Band Infrared™ (WBIR) spectrum. The radiant energy from all types of flaming fires will alert the detector to their presence.

The field of view is the widest in the industry with a 120 degree cone of vision. This means more hazard area 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.

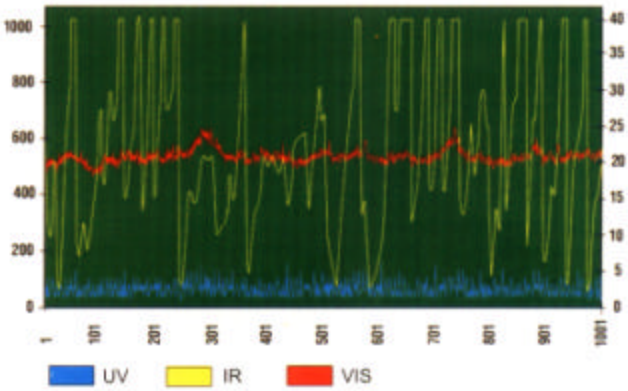
Operation

The SS2 operates from standard 24 Volt DC power and interfaces to approved fire alarm panels or card controllers. When power is applied, an internal self test is performed and the fault relay resets to show no faults. The detector is then in normal operation. The front LEDs blink every ten seconds to indicate power is on.

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

As part of the FS2000™ System, the the lens and complete optical path can be checked using COP-i™ Test Sources in the system. Connection into the FS2000™ System is by the four wire RS-485 FireBus™.

Tri-Mode Plot Shown on Computer Display



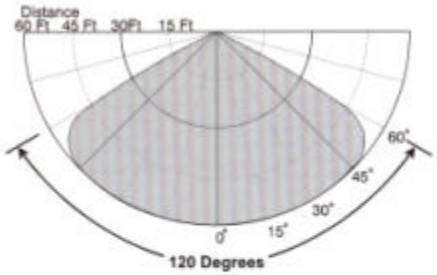
WORLD LEADER IN ELECTRO-OPTICAL FIRE DETECTION TECHNOLOGY

FIRE SENTRY™ CORPORATION

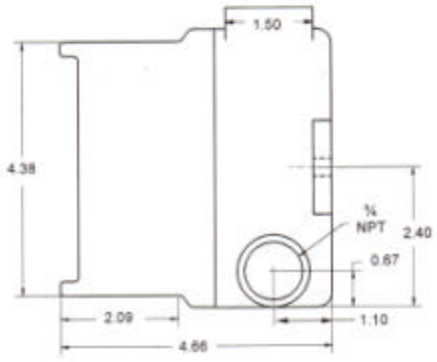
ISO 9001

CSFM

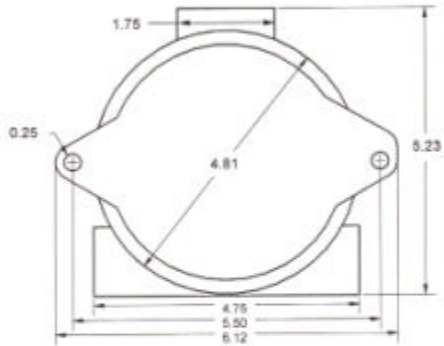
Maximum Sensitivity



Field of View, Horizontal and Vertical Sensitivity to 1 sq. ft. Gasoline Pan Fire



Model SS2 - Side View



Model SS2 - Back View

SPECIFICATIONS

Sensitivity	1 Sq. Ft. Gasoline fire at 60 feet within 5 seconds.
Response Speed	3.9 milliseconds to explosive Fire
Field-of-View	120 degrees cone of vision (60 degrees from on axis).
Spectral Sensitivity	Ultraviolet: 185 to 260 nanometers Wide Band Infrared: 0.7 to 3.5 micrometers Visible: 400 to 700 nanometers
Input Power	24 VDC nominal (20.4 to 34 VDC)
Power Consumption	56 mA normal operation, typical 68 mA alarm condition, typical
Relay Outputs	***Fire relay:*** NO & NC contacts Latching /Non-Latching, factory set ***Fault relay:*** NO & NC contacts Relay contact ratings: 0.5 A at 120 VAC, 1.0 A at 24 VDC
Operating Temperature	- 40 to + 185° F - 40 to + 85° C
Humidity Range	10 to 90% RH, non-condensing
Weight	approximately 3.8 pounds
Housing	Copper-free aluminum (less than 0.4%) polyester TGIC (Mil Spec) powder coated NEMA 3 & 4 weatherproof, tamper resistant with integral dual 3/4" NPT conduit openings Stainless steel housing available
Electrical Classification	Explosion-Proof Class I, Div. 1 & 2, Groups B, C, & D Class II, Div. 1 & 2, Groups E, F, & G Class III.
Mounting	Swivel bracket assembly
Warranty	Two years from factory shipping date Extended warranty available.

ORDERING INFORMATION

SS2-AM	High Speed Detector, non-latching
SS2-AML	High Speed Detector, latching
SM2	Heavy-duty Swivel Mount
FT2045	Explosion-proof Test Lamp
CM1-A	Wall-mount Controller

Dimensions are in inches
This specification is subject to change without notice.

NOTE: For unique applications, the Detector may be custom configured. Contact the factory for information.
For sodium azide fires, contact factory.

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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