



Description

The AlarmEye video image fire detection system represents a new generation of camera technology that can be used to detect both smoke and flame in either normal illuminated or unlit conditions using sophisticated infra-red imaging technology.

The AlarmEye, with its front-end video image detector can detect both flame and smoke at an early stage using image analysis.

With its large area coverage, visual confirmation and simultaneous detection of both smoke and flame, the unit is unaffected by environmental conditions such as stratification, humidity, air conditioning, contamination and dust.

As well as providing state of the art fire detection, the unit can be tailored to provide specific intergrated solutions such as recognition and management and can also act as CCTV for security purposes.

Features

- UL Approved
- Multi function applications
- Distributed intelligence
- Multiple sub zones per detector
- Can be used over LAN, internet, wireless
- Explosion proof version for hazardous areas

Typical Applications

- Transportation
- Petrochemical and exploration
- Power generation
- Brewing and production
- Aerospace i.e. hangers and airports
- Warehouse and storage

Description

Video Image Detection Mode	Colour, Black & White and Infrared Image																																				
Fire Detection Range (At highest sensitivity, with 8mm lens and 1ft 2 (0.1m2) pan standard fire. Other focus length lens detection range = D * 8mm/focus length)	<table border="1"> <thead> <tr> <th>fuel</th> <th>ft/m</th> <th>fuel</th> <th>ft/m</th> <th>fuel</th> <th>ft/m</th> </tr> </thead> <tbody> <tr> <td>N-heptane</td> <td>330/100</td> <td>Kerosene</td> <td>230/70</td> <td>Methane*</td> <td>140/45</td> </tr> <tr> <td>Gasoline</td> <td>330/100</td> <td>95% Alcohol</td> <td>165/50</td> <td>LPG*</td> <td>140/45</td> </tr> <tr> <td>Diesel</td> <td>265/80</td> <td>Methanol</td> <td>165/50</td> <td>Polyethylene</td> <td>60/20</td> </tr> <tr> <td>JP5 Jet Fuel</td> <td>265/80</td> <td>IPA</td> <td>178/60</td> <td>Copier Paper</td> <td>100/35</td> </tr> <tr> <td>*20" (0.5m) height</td> <td></td> <td>8" (0.2m) width fire flame</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	fuel	ft/m	fuel	ft/m	fuel	ft/m	N-heptane	330/100	Kerosene	230/70	Methane*	140/45	Gasoline	330/100	95% Alcohol	165/50	LPG*	140/45	Diesel	265/80	Methanol	165/50	Polyethylene	60/20	JP5 Jet Fuel	265/80	IPA	178/60	Copier Paper	100/35	*20" (0.5m) height		8" (0.2m) width fire flame			
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Fire detection response time (tested with standard fire)	Flame Detection 5~30s, Smoke Detection 15~240s, Event Detection 0.2~30s																																				
Adjustable delay detection time	5~15 seconds																																				
Effective detection range (for 8mm lens)	5 levels sensitivity, 1ft ² (0.1m ²) N-heptane fire detection range 90-330 ft (30-100m) 9 levels smoke sensitivity, detection smoke size 15% - 65% of image height 3 levels event detection sensitivity																																				
Field of view angle	Dependent on lens used, largest horizontal angle 90° and vertical angle 82°																																				
Detector built-in test (BIT)	Automatic and manual																																				
Detector operating temperature range	Operation: -13°F to +158°F (-25°C to +70°C) Special Application: -40°F to +70°F Storage: -40°F to +185°F (-40°C to +85°C)																																				
Humidity	95% and above with no condensed dew: short term exposure to 100%																																				
Operating Voltage	24Vdc (18-32Vdc)																																				
Power consumption	Detector rated power 12w, IR source rated power 13w/source																																				
Power on delay	No more than 5 seconds																																				
Cable connectors	PG9 or explosion proof connectors																																				
Power cable	12-22AWG (2.5mm ² - 0.3mm ²)																																				
Electro-magnetic compatibility	Satisfy the requirements in EN50130-4, UL268B, FM3260																																				
Relay	Alarm, Pre-alarm and fault: SPST dry contact 1A at 30Vdc or 0.5A at 250Vac																																				
0-20mA (optional)	<table border="1"> <tbody> <tr> <td>Fault:</td> <td>0~4mA</td> <td>Pre-alarm:</td> <td>9.5~11mA</td> </tr> <tr> <td>BIT Fault:</td> <td>4.0~5.5mA</td> <td>Alarm:</td> <td>14~19mA</td> </tr> <tr> <td>Normal:</td> <td>6.5mA~8mA</td> <td>Loop Resistance:</td> <td>100-600Ω</td> </tr> </tbody> </table>	Fault:	0~4mA	Pre-alarm:	9.5~11mA	BIT Fault:	4.0~5.5mA	Alarm:	14~19mA	Normal:	6.5mA~8mA	Loop Resistance:	100-600Ω																								
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RS-485	Modbus compatible connection																																				
TCP/IP via ethernet (for IP type)	RJ45, 10/100Mbit/s																																				
Material	Aluminum alloy (standard model), Stainless Steel (304 or 316 for explosion proof model)																																				
Dimension	Standard model detector 4.9" x 5.8" x 14.9" (125 x 149 x 380mm)																																				
Environment standard	Comply to the requirements on humidity, corrosive vapor, vibration, jarring, high temperature and low temperature in America's UL268B and China's national standard GB15631																																				
Waterproof and dustproof	Standard model IP65, explosion proof model IP67 and above																																				
Performance	UL268B, FM-3260, CE, FCC																																				

The designer may configure the connectivity of the system with the connection ports provided with the detector. The regular connection options available to AlarmEye® VID are shown in Fig 5.15 and Fig 5.16.

