



Flame Detection Selection Guide

Unsurpassed products comprise the industry's most extensive lineup of optical flame detectors.

Flame Detection Technologies

MULTISPECTRUM IR

The Protect.IR X3301 and X3302 are the latest advancements in optical flame detectors. Designed to detect hydrocarbon or non-



hydrocarbon fires, advanced signal processing techniques are utilized to maintain alarm capabilities with modulated blackbody and other false alarm sources present.

Features include increased range, sensitivity, coverage and false alarm rejection. Automatic optical integrity

ensures reliability with a minimum of maintenance. Approved to FM 3260/2000. Can be



installed as Class 1 Division 1, EEx de or EEx d.

APPLICATIONS:

- Aircraft hangars
- Automotive
- Compressors
- FPSO
- Hydrogen Stations
- Hydrogen compressor skids
- Offshore platforms
- Solvent/chemical storage
- Tank farms
- Turbines

ULTRAVIOLET/INFRARED

X5200 UVIR detectors are particularly suited for applications where hydrocarbon fires are likely and UV radiation sources may be present. They maintain constant fire protection



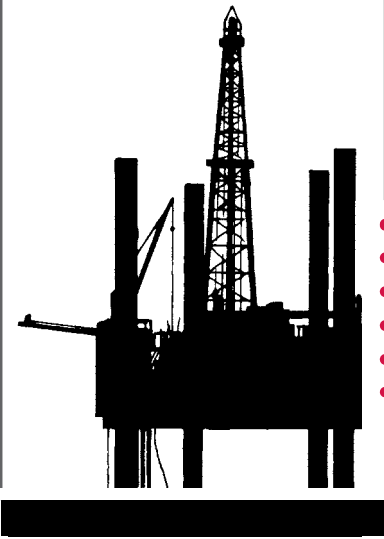
while arc welding takes place.

Signals from both UV and IR sensors

are processed to produce a fire alarm when both sensors detect a fire, resulting in good false alarm rejection capability.

APPLICATIONS:

- Aircraft hangars
- Loading Racks
- Powder coating



DUAL SPECTRUM® IR

Dual Spectrum® models feature dual wavelength IR flame detection technology, for maximum reliability and a new level of false alarm rejection.



PM-5MPX is for semiconductor fabrication tools and facilities.



PM-9SBE is a fiber optically coupled IR detector.

APPLICATIONS:

- Electrostatic painting
- Gas cabinets
- Hydrogen
- Metal fab
- Semiconductor
- Solvent/chemical storage

SINGLE FREQUENCY IR

X9800 single frequency IR detectors use signal processing TDSA and narrow frequency bandpass filter to detect radiation characteristics of hydrocarbon fires. The detector is completely solar insensitive.



IR detectors are suited for applications where high pressure hydrocarbon fires are

likely to occur and high concentrations of oil or airborne contaminants may be present.

APPLICATIONS:

- Automotive Powder coating
- FPSO
- Offshore platform
- Pipelines



refining and processing

production

ULTRAVIOLET

X2200 UV detectors utilize a high speed, maximum sensitivity tube. Virtually all fires emit radiation in this band. The products' unique design renders the UV detector solar blind.

Detectors are very flexible, general purpose indoor optical fire detection devices. They are fast, reliable and respond to most fires.

UV detectors are available with Arc rejection for transient UV signal rejection.

- APPLICATIONS:
- Battery rooms
 - High temperature locations
 - Munitions
 - Powder coating

RETROFIT READY

Direct retrofit detectors available with pulse output for use with R7404/R7494 controllers.



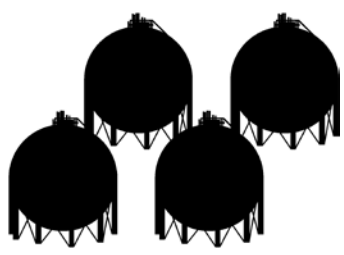
Relay Output Modules: Used with the controllers, these devices provide



relay outputs and are available in a variety of configurations.

Power Supplies: Available to convert line voltage ac into dc operating power for the detection systems.

Mounting Cages: Available in a variety of sizes that hold from one to eight micro-module devices.



transportation and storage

Systems

FIRE AND GAS

Det-Tronics integrates flame and gas detectors as well as other devices into a complete fire detection system.



Comprehensive special hazard management systems are also custom designed for unique applications.

Eagle Quantum Premier is an NFPA-72 compliant, combination fire and gas detection and releasing system. This system offers unsurpassed functionality including high speed flame detection, programmable configuration as well as fire and gas logic and agent releasing capability, with high performance gas detection.

Each system can be customized to meet specific application requirements. System capabilities include design, engineering, assembly, wiring, documentation, testing and startup.

Accessories

ACCESSORIES

Swivel assemblies allow easy mounting and sighting of detector assemblies and are available for all detectors.



Laser aimer: Cone of vision tester for sighting and testing the area of coverage of the detector.

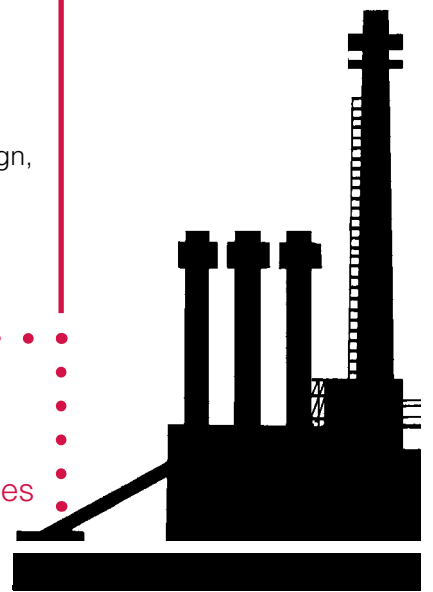


Air shields for reduced maintenance in areas where there is an abnormally high level of airborne contaminants.



Test lamps to test the system without using an open flame are available for detectors without manual or mag oi.

end uses



		Multispectrum IR	Ultraviolet/Infrared	Dual Spectrum IR (PM5MPX)	Single Frequency IR Ultraviolet	
Detection Distance (feet)	n Heptane (1 ft x 1 ft)	210	60	18	85	90
	Diesel (1 ft x 1 ft)	150	40	—	65	65
	JP5 (2 ft x 2 ft)	210	100	—	100	100
	Methanol (1 ft x 1 ft)	150	55	5	50	50
	Methane (30 inch)	100	45	—	45	80
	Hydrogen (30 inch)	—	—	5	—	50
	Metal Fires	—	—	5	—	15
	Black Powder (30 grams)	—	—	—	40	15
Typical Interferences	Arc Welding	▲	▲	▲	▲	■
	Modulated IR Radiation	●	●	▲	▲	●
	Electrical Arcs	●	●	●	●	■
	Radiation (Nuclear)	●	●	●	●	■
	Lightning	●	●	●	●	■
	Grinding (Metal)	●	●	●	●	■
	Artificial Lighting	●	●	●	●	■
Sunlight	●	●	▲	●	●	
Features Overview	Eagle Quantum Premier	◆	◆		◆	◆
	Unitized/Stand-Alone	◆	◆	◆	◆	◆
	Retrofit Controller-based	◆	◆		◆	◆
	Hazard Monitoring System	◆	◆	◆	◆	◆
	Data Logger Event Monitoring	◆	◆		◆	◆
	Automatic Optical Integrity	◆	◆		◆	◆
	Millisecond Response Capability	◆	◆	◆	◆	◆
	Relay Outputs	◆	◆	◆	◆	◆
	Tricolor Status/Notification LED	◆	◆		◆	◆
	Isolated/Non-Isolated 4 to 20 ma Output	◆	◆		◆	◆
	Rack Compatible with Gas Controllers	◆	◆		◆	◆
	Hazardous Location Rated	◆	◆	◆	◆	◆
	Intrinsically Safe			◆		
FM/CSA/Cenelec/CE/ATEX Approved	◆	◆	◆*	◆	◆	

● No effect ▲ Some effect ■ Severe effect ◆ Available *FM Only