	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	▲	●	▲	▲	■
Modualted 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		◆	◆		◆
Tri-colorStatus 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

Flame Detection Selection Guide

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

92-1024-9.1

DET-TRONICS®

A UTC Fire & Security Company

Flame Detection Technologies

Systems

Accessories

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.
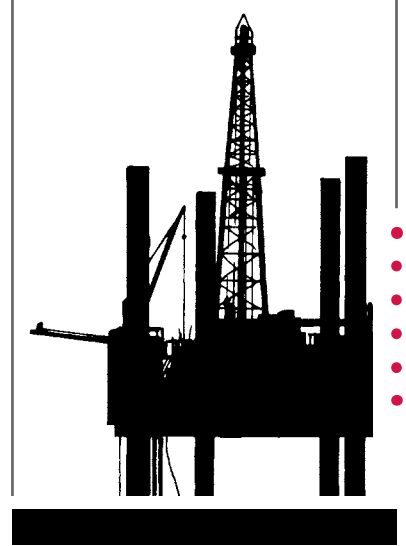
Signals from both UV and IR sensors are processed to produce a fire alarm when both sensors detect a fire, resulting in good false alarm rejection capability.

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
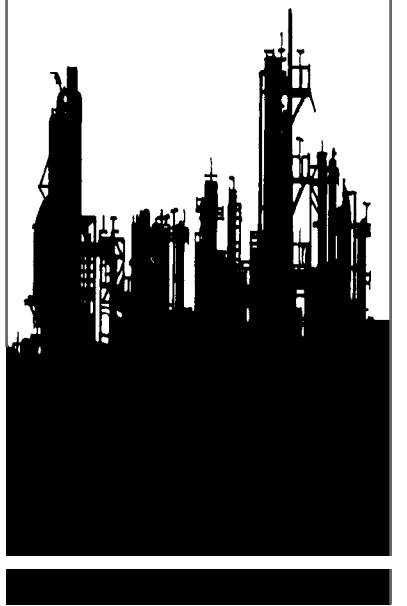Solvent/chemical storage

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

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
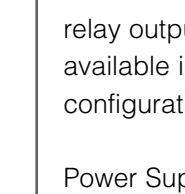High temperature locations
Munitions
Powder coating

RETROFIT READY

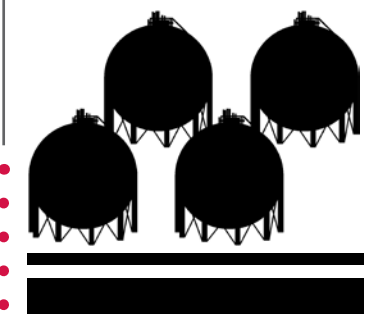Direct retrofit detectors available with pulse output for use with R7404/R7494 controllers.

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.

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

Swivel assemblies allow easy mounting and sighting of detector assemblies and are available for all detectors.
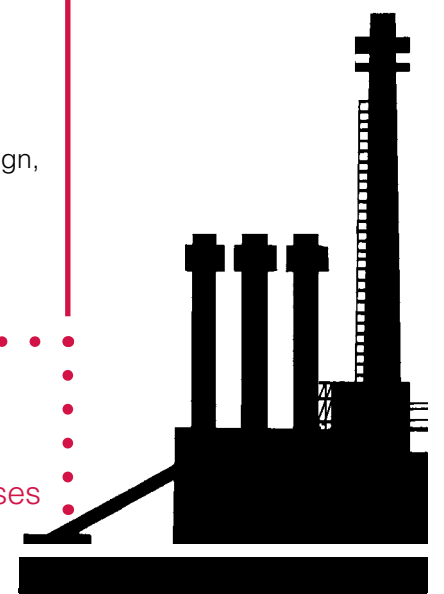
Laser aimer: Cone of vision tester for sighting and testing the area of coverage of the detector.

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.

production

refining and processing

transportation and storage

end uses