F2 FLAME-i Triple Mode UV/IR

Flame Detector

For Non-Hazardous Applications

The SST Model F2 "Triple Mode" UV/IR optical flame detector is specially designed for use in non-hazardous applications and uses the latest state-of-the-art processor and circuitry in monitoring and detection of a fire. The flame detector monitors for specific radiation emitted by a fire through the use of 3 sensors - one UV (Ultraviolet) sensor and two IR (Infrared) sensors. The detector requires two of its three sensors to confirm and signal an alarm, thus reducing false alarms caused by other sources such as arc welding, reflected sunlight, lightning and others. This "voting" capability is what sets the detector apart from other UV/IR detectors. The detector is also designed to provide a rapid response to the presence of a fire which makes it ideal for use in high-value equipment monitoring where detection of the onset of a fire is critical to prevent any significant damage to the equipment.

The Model F2 FLAME-i is a highly versatile flame detector. It provides dual modes of operation and can be set by the user depending on their application for Triple-Mode UV/IR or UV Only Mode. It also provides two sensitivity settings, a high and low, for a wide range of applications. The detector has a built-in contact relay to control or shutdown equipment. The housing is made from glass-reinforced plastic material with excellent rigidity and is environmentally-friendly. The detector uses a highly specialized sapphire lens which allows transmission of the UV and IR radiation to its sensors and provides an adjustable field-of-view. Designed, engineered and Made in the USA.

FEATURES & BENEFITS

- Dual modes of operation: Triple-mode UV/IR or UV only mode
- Voltage-free contact to control or shutdown external equipment
- Detection range of 90 feet (28 m)
- High and Low Sensitivity Settings
- Specialized Sapphire Lens
- Adjustable field-of-view
- Fast response
- Automatic reset
- Solar blind
- Not blinded by dense smoke
- Discriminates against arc welding, radioactive sources (x-ray), sunlight, lightning, or black body radiation
- Includes multi-conductor cable and wall/ceiling mounting bracket
- 5 Year Warranty
- Made in USA

APPLICATIONS

- Battery storage facilities and warehouses
- Electrical Discharge Machining (EDM) equipment
- High-value equipment monitoring
- Offices
- Paper cup forming machine
- Production line
- Recycling facilities
- Storage facilities
- Test laboratories
- Warehouses

SST
SAFETY SYSTEMS TECHNOLOGY

Model F2 FLAME-I Triple-Mode UV/IR Flame Detector

SYSTEM SPECIFICATIONS

Spectral Response: UV: 185 to 245 nm
IR: 4.3 microns (Hydrocarbon CO_2 spike)

Detection Range: Reliably detects a one square foot n-Heptane fire at a distance of 90 feet / 28 m

Response Time: < 1 second

Detection Modes: Triple-mode UV/IR (voted any two out of three sensors)
UV Only mode

Field of View: 90° horizontal and 70° vertical, adjustable to 60° degrees

Warranty: 5 years

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -40°F to 185°F (-40°C to 85°C)

Operating Humidity: 0-100% RH, non-condensing

Ingress Protection: IP54

MECHANICAL SPECIFICATIONS

Dimensions: 2.62 inches diameter x 7.00 inches long (66.5 x 178.0 mm)

Weight: 1.5 lbs. (.70 kg)

Housing: Glass reinforced plastic

ELECTRICAL SPECIFICATIONS

Input Power: 16-32 VDC, 24 mA standby, 50 mA alarm @ 24 VDC

Relay Contact Ratings: 2 amps @ 28 VDC or 300 VAC resistive 1/8 HP @ 120/240 VAC

Relay Outputs: Alarm (instantaneous, non-latching)

Alarm Reset: Automatic when flame is no longer detected

Visual Indicators: Detector Ready (Green LED); Alarm (Red LED)

Field Connections: 0-20 mA output - three-wire shielded cable
All other connections: 18 AWG (.35 mm^2) to 14 AWG (2.5 mm^2)

ORDERING INFORMATION

Part No.	Description
140-01	Model F2 Triple-Mode UV/IR Flame Detector with Mounting Bracket
Accessories	
194-1	Portable UV/IR Flame Detector Test Device with 120 volt battery charger
194-2	Portable UV/IR Flame Detector Test Device, standard "D" cell batteries
194-3	Portable UV/IR Flame Detector Test Device, with 240 volt battery charger

Specifications subject to change without notice.