

ENGINEERING QUALITY AND RELIABILITY

F130 MULTI-SPECTRUM IR

FLAME DETECTOR

SELF-CONTAINED AND EXPLOSION-PROOF



FEATURES & BENEFITS

- Multi-spectrum design with high false alarm immunity and fire sensitivity
- Long detection range
- Low power consumption of < 2.88W
- Standalone operation or connection to standard four wire fire control panels
- Automatic optical self test
- Suitable for heavy industrial applications
- Alarm and fault relay outputs (4 wire) and stepped 0-20 mA output (3 wire)
- Heated window - for operation in harsh weather conditions
- Sapphire viewing window
- Fast response
- Suitable for use in both general purpose and hazardous locations - NEMA 4X rated, UL and c-UL listed
- Multiple sensitivity settings
- Available with wireless transmitter as an accessory with text, e-mail notifications feature
- 5 Year Warranty
- Made in USA

The SST Model F130 Multi-Spectrum IR Optical Flame Detector is self-contained in a two-piece explosion proof copper-free aluminum housing finished in deep red color for rapid identification as a flame detector. A protective coating permits use in harsh environments, such as offshore platforms, without degradation. An optional stainless steel housing is also available. The detector is suitable for use in "classified" areas where ignitable concentrations of flammable gas normally exists. A sapphire window in the front of the housing assures detection of the Infrared wavelengths produced by fire and provides exceptional durability. Electrical connections are made through a 3/4 inch threaded outlet on the rear of the detector, suitable for connection to an electrical conduit or cable gland.

Contained within The Model F130 Multi-Spectrum IR Optical Flame Detector housing are the multi-band IR and sensing elements associated electronics, three (3) relays, and screw terminal blocks for wiring. The detector may be installed for completely self-contained operation, utilizing the relays to control local equipment directly. Additionally, the alarm and status conditions may be transmitted by the detector to a central control room. The relay contacts, if not being used for local control, may be hard wired to the control room to transmit these conditions. All conditions may also be transmitted over a single wire by using the available 0-20 mA signal.

APPLICATIONS

- Aircraft Hangars
- Chemical Plants
- CNG Refueling Stations
- Compressor Stations
- Explosives & Munitions Storage Facilities
- Gas Turbines
- Hydrogen Vehicle Refueling Stations
- Refineries
- Offshore Oil & Gas Facilities
- Onshore Oil & Gas Facilities
- Oil and Gas Depots
- Petrochemical Plants
- Pipelines
- Power Generation Facilities



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MODEL F130 MULTI-SPECTRUM IR FLAME DETECTOR

SYSTEM SPECIFICATIONS

- Spectral Response:** Multi-Spectrum IR Bands
- Spectral Sensitivity:** 2 - 5 microns (IR)
- Detection Range:** Reliably detects a one square foot n-Heptane fire at a distance of 200 feet
- Response Time:** < 5 seconds (user selectable)
- Adjustable Time Delay:** 3 or 6 seconds
- Sensitivity Settings:** High, Medium, Medium Low, Low
- Field of View:** 90° Horizontal and 100° Vertical
- Optical Self-Test:** Automatic continuous optical path
- Warranty:** 5 years
- Approvals:** UL, c-UL File E162517
Type 4X Enclosure
Watertight, Corrosion Resistant
For Use in Hazardous Locations
Class I Groups B, C, D
Class I Zone 1 Group IIA, IIB+H2
Class II Groups E, F, G

ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature:** -40°F to 185°F (-40°C to 85°C)
- Operating Humidity:** 0-100% RH, non-condensing
- Heated Optics:** To eliminate condensation and icing
- Ingress Protection:** IP66

MECHANICAL SPECIFICATIONS

- Dimensions:** 4.40 x 5.25 inches (112x133 mm)
- Weight:** 4.0 lbs. (1.8 kg) Aluminum;
10.0 lbs (4.5 kg) Stainless Steel
- Housing:** Aluminum or Stainless Steel 316



Specifications subject to change without notice.

ELECTRICAL SPECIFICATIONS

- Input Power:** @ 24VDC
Standby: 60 mA (1.44 watts)
Standby in Fault: 40 mA
Full Alarm: 120 mA (2.88 watts)
- Relay Contact Ratings:** 2 amps @ 30 VDC or 125 VAC resistive
- Analog Signal:** Standard 0-20 mA, self-powered
Malfunction 0-2 mA
Ready 4 mA
Alarm 12 mA
Delayed Alarm 20 mA
- Relay Outputs:** Alarm (can be set for latching or non-latching), Delayed Alarm, Malfunction
- Alarm Reset:** Automatic or manual when flame is no longer detected
- Visual Indicators:** Detector Ready (Green LED); Malfunction (Yellow LED); Alarm/Delayed Alarm (Red LED)
- Field Connections:** 0-20 mA output - three-wire shielded cable
All other connections: 18 AWG (.35 mm²) to 14 AWG (2.5 mm²)
- Wireless Communication:** Available with optional wireless transmitter with text, e-mail notification features

ORDERING INFORMATION

Part No.	Description
130-01	Model F130 Multi-Spectrum IR in Aluminum Housing

Accessories

190-01	Swivel mount assembly for use with 3/4 inch conduit
191-01	Wall mount swivel bracket
196-1	Portable IR Flame Detector Test Device with 120 volt battery charger
196-2	Portable IR Flame Detector Test Device, standard D cell batteries
196-3	Portable IR Flame Detector Test Device, with 240 volt battery charger

