

580 SERIES UV/IR FLAME DETECTOR



The 580 Series UV/IR Flame Detector utilizes dual-spectrum sensors to provide high-speed fire detection with exceptional false alarm immunity. By combining ultraviolet (UV) and infrared (IR) optical sensors, the device identifies both hydrocarbon and non-hydrocarbon fires within seconds and triggers an immediate response. Engineered for reliability, the 580 Series UV/IR Detector is resistant to the influences of direct or reflected sunlight and artificial lighting (fluorescent/halogen), electrical arcs and static discharges, and the radiation from arc welding (at distances exceeding 10 feet). Whether used as a standalone device or integrated into a networked safety system, the 580 Series UV/IR Flame Detector provides a dependable foundation for any fire monitoring solution.



580 5005-01-1 shown

Typical Applications

- Battery Storage Rooms/Data Communication
- Clean Rooms: Semi-conductor, Pharmaceutical, and Hospital Operating Rooms
- Fume Hoods, Gas Cabinets, and Hydrogen Storage Areas
- Chemical Manufacturing
- Laboratories
- Outdoor Chemical, Fuel, Paint, and Solvent Storage
- Indoor Chemical, Fuel, and Solvent Storage
- Monitoring of Machinery

Features

Dual Spectrum Technology utilizes UV and IR sensors for high-accuracy detection and superior false alarm immunity

Broad Range Detection provides extensive area coverage

Rapid Alarm Response enables quick safety and suppression actions

Continuous Internal Health Monitoring prevents undetected device failure

Durable GRP Fiberglass Construction offers exceptional chemical, UV, and corrosion resistance

Pressure Compensating Element (PCE) eliminates internal moisture build-up and protects internal seals from ambient pressure changes.

Manual Remote Self-test facilitates functional sensor verification from a remote location without a test lamp

Configurable Alarm Relay accommodates specific site requirements

Hazardous Area Certification supports use in harsh indoor and outdoor environments

Flexible Output Options allow universal system integration through both 0–20 mA analog and SPDT relay signals

Optional Swivel Mount (included) permits installation flexibility and precise directional positioning

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Materials and Specifications

Sensor Type: Ultraviolet (UV) and infrared (IR) sensor

Field of View: 90° minimum cone of vision

Detection Range: 75 ft (23 m) for a 1 ft² (0.1 m²) n-heptane pan fire, alarming within 10 seconds

Spectral Sensitivity: 4.2 - 4.6 microns (IR); 180 - 250 nm (UV)

Power Requirements: 10–28 VDC (12–24 VDC nominal), 25 mA normal operating current

Response Time: 8 - 30 seconds

Operating Temperature: -13°F to 158°F (-25°C to 70°C)

Analog Output: 0-20 mA (stepped, sinking, non-isolated)

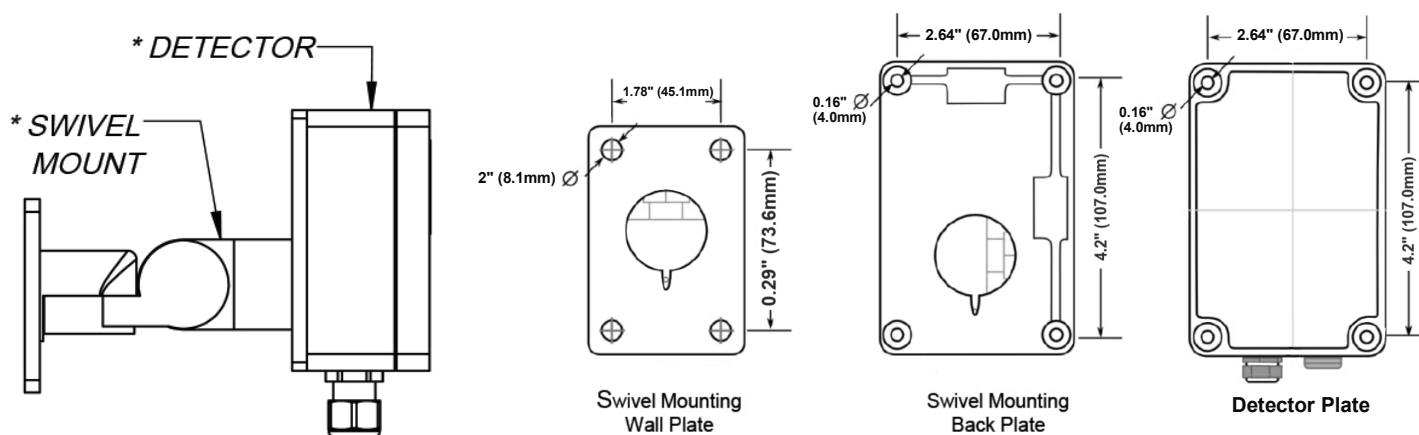
Relay Outputs: One configurable latching/non-latching alarm relay (normally de-energized) and one fault relay (normally energized), Form C (SPDT) 2A @ 30 VDC rated

Enclosure: Fiberglass (Glass Reinforced Polyester/GRP) UV resistant, self-extinguishing V-0 (UL-94)

Swivel Mount: Nylon (polyamide/PA66) with stainless steel hardware

Conformances (enclosure): IP65; FM Class 1, 2 & 3 Div 2 and ATEX Zone 2/22

Installation Dimensions



Ordering Information

Part No.	Description
580 5005-01-1	580 Series UV/IR Flame Detector/Transmitter and swivel mount