The X5200 UVIR Flame Detector meets the most stringent requirements worldwide with advanced detection capabilities and immunity to extraneous sources, combined with a superior mechanical design. The mounting arrangement allows the UV and IR sensors to monitor the same hazardous location with a 90 degree cone of vision. When both sensors simultaneously detect the presence of a flame, an alarm signal is generated. The detector has Division and Zone explosion-proof ratings and is suitable for use in indoor and outdoor applications.

The standard output configuration includes fire, fault and auxiliary relays. An optional 0 to 20 mA output with HART can be provided in addition to the three relays. A model with pulse output is available for easy retrofitting into existing Det-Tronics controller based systems. Auxiliary relay and 0 to 20 mA output are not available with the pulse model. A tri-color LED on the detector faceplate indicates normal condition and notifies personnel of fire alarm or fault conditions.

The X5200 housing is available in aluminum or stainless steel, with NEMA 4X and IP66/IP67 rating.

Typical applications include:
- Munitions
- Petrochemical applications
- Turbines
- Hangars

**HIGHLIGHTS**

- Complies with FM 3260
- EN54 certified
- Certified SIL 2 capable
- ATEX Directive compliant
- EOP models available
- A new level of false alarm rejection
- Responds to a fire in the presence of modulated blackbody radiation (i.e. heaters, ovens, turbines) without false alarm
- HART models available
- FDT/DTM capable
- High speed capability
- Microprocessor controlled heated optics for increased resistance to moisture and ice
- Automatic, manual or magnetic oï® (optical integrity) testing — no external test lamp required
- Easily replaceable oï plate
- Fire, fault and auxiliary relays standard
- MODBUS RS-485 communication
- 0 to 20 mA isolated output (optional)
- Pulse output for compatibility with controller based systems (optional)
- A tri-color LED on the detector faceplate indicates normal condition and notifies personnel of fire alarm or fault conditions
- Mounting arm allows easy sighting
- Integral wiring compartment for ease of installation
- Class A wiring per NFPA-72
- Meets NFPA-33 response requirement for under 0.5 second (available when model selected)
- RFI and EMC Directive compliant
- Built-in data logging / event monitoring
Operating Voltage
24 Vdc. Operating range is 18 to 30 Vdc. Maximum ripple is 2 volts peak-to-peak.

Power Consumption
2.8 watts @ 24 Vdc minimum.
17.5 watts @ 30 Vdc with EOL resistor installed and heater on maximum.

Relays
Contacts rated 5 amperes at 30 Vdc.
Fire Alarm: — Form C (NO and NC contacts)
— normally de-energized
— latching/non-latching.
Fault: — Form A (NO contacts)
— normally energized
— latching/non-latching.
Auxiliary*: — Form C (NO and NC contacts)
— normally energized
— latching/non-latching.

Current Output*
(Conditional)
0–20 mA (± 0.3 mA), with a maximum loop resistance of 500 ohms from 18–19.9 Vdc, 600 ohms from 20–30 Vdc.

Temperature Range
Operating: –40°F to +167°F (–40°C to +75°C)
Storage: –67°F to +185°F (–55°C to +85°C)
Hazardous location ratings from –55°C to +75°C available on flameproof model.

Humidity Range
0 to 95% relative humidity, can withstand 100% condensing humidity for short periods of time.

Field of View
The detector has a 90 degree cone of vision (horizontal) with the highest sensitivity lying along its central axis.

Source Tube
Contents radioactive isotope Krypton 85 (K₈⁵)
Calculated Activity: 14,800 Becquerels (0.4μCi).

Warranty
3 years.

Enclosure Material
Copper-free aluminum (painted) or stainless steel (316/CF8M Cast).

Conduit Entry Size
3/4 inch NPT or M25.

Shipping Weight
(Approximate)
Aluminum: 7 lbs. (3.2 kg)
Stainless Steel: 14.6 lbs. (6.7 kg).

Wiring
16 AWG or 2.5 mm² shielded cable is recommended.

Response Characteristics
Very High Sensitivity UV & IR, Low Arc, TDSA On, Quick Fire On

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Size</th>
<th>Distance (feet)</th>
<th>Typical Response Time (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Heptane</td>
<td>1 x 1 foot</td>
<td>85 (25.9)</td>
<td>14</td>
</tr>
<tr>
<td>Methane</td>
<td>32 inch plume</td>
<td>65 (19.8)</td>
<td>5</td>
</tr>
</tbody>
</table>

NOTE: Refer to the X5200 instruction manual 95-8546 for details regarding detector response.

*Auxiliary relay and 0 to 20 mA output are not available on pulse output model.