Forney’s Intelligent Dynamic Detector (IDD) - Ultra version is designed to accurately detect and discriminate the radiation produced by the combustion of natural gas or light oil.

The Intelligent Dynamic Detector Ultra (IDD-Ultra) is used in conjunction with Forney’s IDD 9000 amplifiers. (For legacy amplifier compatibility, contact Forney.)

The IDD-Ultra solid state circuitry amplifies a continuously changing voltage signal transmitted from the Silicon Carbide (SiC) sensor when flame is sensed. This signal is sent to the amplifier by way of a four conductor cable. The amplifier processes the signal and provides outputs to the burner management system.

For trouble-free operation, the electronics of the detector are potted within the cast steel housing. In addition, the amplifier also initiates a periodic check of the sensor and printed circuit board to verify proper operation of the detector assembly, eliminating the need for a mechanical shutter.

Features & Benefits

- **High Temperature Silicon Carbide Sensor**
  High temperature resistance prevents detector head from overheating on the boiler front. Sensitive to ultra violet light radiation prevalent in natural gas and light oil flames.

- **Dynamic Flame Sensing Circuitry**
  Senses only a dynamic flame signal, discriminates flame from hot refractory and other background conditions.

- **Compact, Durable Assembly**
  The printed circuit board and sensor are potted within a cast steel housing providing a maintenance free product.

- **Simplified System Maintenance**
  Quick disconnect, electrical and mechanical connections are used for easy replacement.

- **Fiber Optics**
  Optional fixtures are available for fiber optic applications.

**Approvals**

- **Factory Mutual Approval**
  Factory Mutual (FM) approval means safe operation and lower insurance rates.

- **CE Compliant** when used with a PM IDD9000 amplifier
IDD-Ultra UV Flame Detector

Products and Accessories:
IDD-Ultra UV Detector Solid State UV Part #38321-29

Specifications:
Mounting: 1” NPT sight pipe fitting
Materials: Cast Steel Housing, Potted Electronics
Electrical: Supplied by Amplifier, 50 VDC and 15 VDC
Electrical Connections: MS Bayonet connector supplied with cable, 1/2” flexible conduit required
Temperature Ratings: 32°F to 250°F (0°C to 121°C)
If freezing temperatures are expected at the detector head, Forney recommends heat tracing the detector sight tube.
Consult Forney for higher temperature applications.
Humidity: 0-95% relative humidity, non-condensing
Shipping Weight: 21 oz (0.6 kg)
Approvals: Factory Mutual (FM)
Sensor: Silicon Carbide (SiC)
Wavelength: 200-425 nm (310 nm center)