

IDD-Ultra Flame Detector

Forney's IDD-Ultra Flame Detector is the ideal UV detector for applications with high-temperature requirements.

Product Overview

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

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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)

