



A UTC Fire & Security Company

# IDD 9000 Flame Detector Amplifier

*The IDD 9000 Flame Detector Amplifier provides enhanced discrimination and tuning for NFPA compliant systems and offers a single retrofit solution for multiple discrete legacy amplifiers.*



## Features & Benefits

### Enhanced Discrimination & Tuning

- Increased IDD frequency response options along with spectrum weighting capability for improved matching to unique flame patterns.
- Storage for eight operating profiles allows BMS controlled or manual file switching for instantaneous recall of optimized performance for a variety of fuels and burner operating conditions.
- Flame signal processing can be IR only or UV only on each channel.
- Combining an IDD and UV-4 flame detector can allow a single IDD 9000 amplifier to supervise a burner/igniter pair for Class 1 igniters.

### Factory Mutual Approved

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

## Product Overview

Reliable flame detection and burner-to-burner discrimination in multi-burner boilers is significantly more challenging with the NFPA 85 requirement to prove “flame not detected” prior to burner start-up. This NFPA requirement along with difficult discrimination challenges, such as low NO<sub>x</sub> burners and opposed fired boilers, are demanding more powerful signal analysis and tuning capability from flame detection systems. The IDD 9000 employs a Digital Signal Processor (DSP) based flame signal processing method to offer advanced tuning capabilities necessary for a NFPA compliant system.

The IDD 9000 Panel Mount Flame Amplifier uses **two fully independent channels** that are designed for easy upgrade of existing Forney panel mount flame amplifiers, whether single or dual channel. Most installations simply require a flame amplifier replacement and reconnection of existing wires to improve flame detection.

## COMPATIBILITY

- Amplifier Upgrades - The IDD 9000 can replace most Forney flame amplifiers in any application with complete compatibility.
- Flame Detector - Works with all versions of Forney’s IDD and UV-4 detectors.
- Analog Output - Flame intensity output is available in either 0-10 VDC or 4-20 mA.

# IDD 9000 Flame Detector Amplifier

## Products and Accessories:

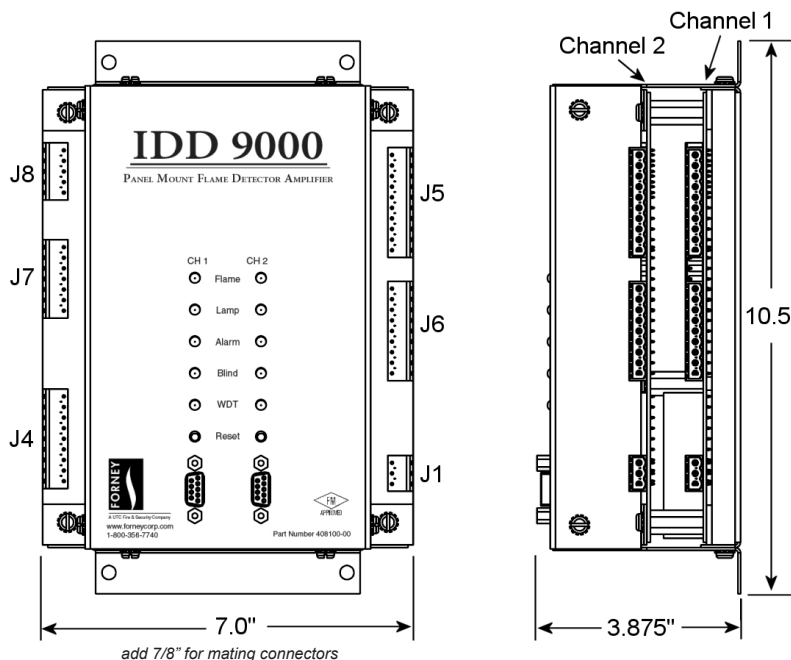
Panel Mount (PM) IDD 9000 Amplifier	Part #408100-00
Rack Mount (RM) IDD 9000 Amplifier	TBD - contact your Forney representative
Termiflex / SMARTDisplay® terminal with 9-pin connector*	Part #408106-01
Cable 40' (for IDD)	Part #399854-04
Cable 40' (for UV-4)	Part #399855-04
Compatible Flame Detectors:	
IDD-II, Filtered, Infrared Detector	Part #38321-21
IDD-IIU, Unfiltered, Infrared Detector	Part #38321-22
IDD-III, Infrared Detector for Lignite	Part #38321-23
UV-4, UV Tube Detector	Part #379189-02

\*If using an older Termiflex / SMARTDisplay® terminal with a 25-pin connection, a DB25-pin to DB9-pin adapter is required (Forney Part #408107-01)

## Panel Mount IDD 9000 Specifications:

Temperature:	32° to 140°F (0° to 60°C)
Humidity:	5% to 95% relative humidity, non-condensing
Power Requirements:	120/240 VAC, 50/60 Hz @ 12 VA
Dimensions:	10 1/2" x 7 7/8" x 3 7/8" (26.6 cm x 20 cm x 9.8 cm)
Weight:	5 lbs. 3 oz.
Output Relay Ratings (SPDT)*:	3 A at 125 VAC, 250 VAC & 30 VDC
Flame Strength:	4-20 mA or 0-10 VDC
Flame Failure Response Time (FFRT):	2.0, 3.0 or 3.8 seconds
Flame Pickup Time:	less than 2 seconds
Nonvolatile RAM:	8 complete operating profiles
Approvals:	Factory Mutual (FM)

\*3 relays are available for both Channel 1 and Channel 2 (Lamp, Main Flame & Alarm).



The PM IDD 9000 has a separate, identical PCB motherboard for each channel. Each board contains the following six connectors on the side panels.

- J8 - VAC Opto Isolator Inputs
- J7 - Profile Select and Blind Input
- J4 - Control Inputs and Flame Scanners
- J5 - Scanner Analog Signal Outputs
- J6 - Relay Contact Outputs
- J1 - Power Supply