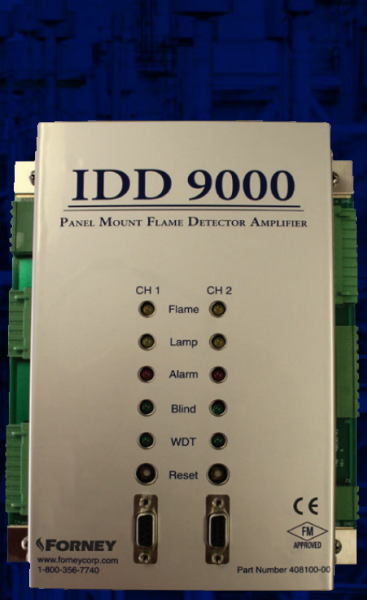
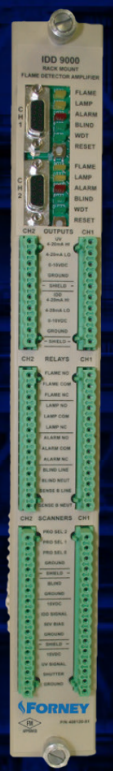
FORNEY

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.





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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 NOx 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 Flame Amplifier is designed for easy upgrade of existing Forney flame amplifiers with most installations simply requiring a flame amplifier replacement and reconnection of existing wires to improve flame detection and discrimination. The IDD 9000 is available in panel or rack mount; single or dual channel configurations. The dual channel configurations use two fully independent channels to support two flame detectors simultaneously.

Compatibility

- Amplifier Upgrades - The IDD 9000 can replace most Forney flame amplifiers, panel or rack mount, 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.

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FEATURES & BENEFITS

- Enhanced Discrimination and Tuning - Increased IDD frequency response options along with spectrum weighting capability for tuning 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.
- Connecting an IDD and UV-4 flame detector to one dual channel IDD 9000 amplifier allows supervision of a burner/ igniter pair.

Approvals

- All IDD 9000 Amplifiers are Factory Mutual (FM) approved
- PM IDD 9000 has the CE Marking

Pub # 404005-21
Rev 11/2020

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Products and Accessories:

Dual Channel Panel Mount (PM) IDD 9000 Amplifier	Part #408100-00
Single Channel Panel Mount (PM) IDD 9000 Amplifier	Part #408100-50
Rack Mount (RM) IDD 9000 Amplifier - dual channel	Part #408120-01
Amplifier Tuning Kit	Part #408103-01
Termiflex / SMARTDisplay® terminal with 9-pin connector*	Part #408106-01
Cable 40' (12.2 m) for IDD	Part #399854-04
Cable 40' (12.2 m) for UV-4	Part #399855-04
Compatible Flame Detectors: IDD-II, Filtered, Infrared Detector IDD-IIU, Unfiltered, Infrared Detector IDD-IIL, Infrared Detector for Lignite UV-4, UV Tube Detector	 Part #38321-21 Part #38321-22 Part #38321-23 Part #379189-02

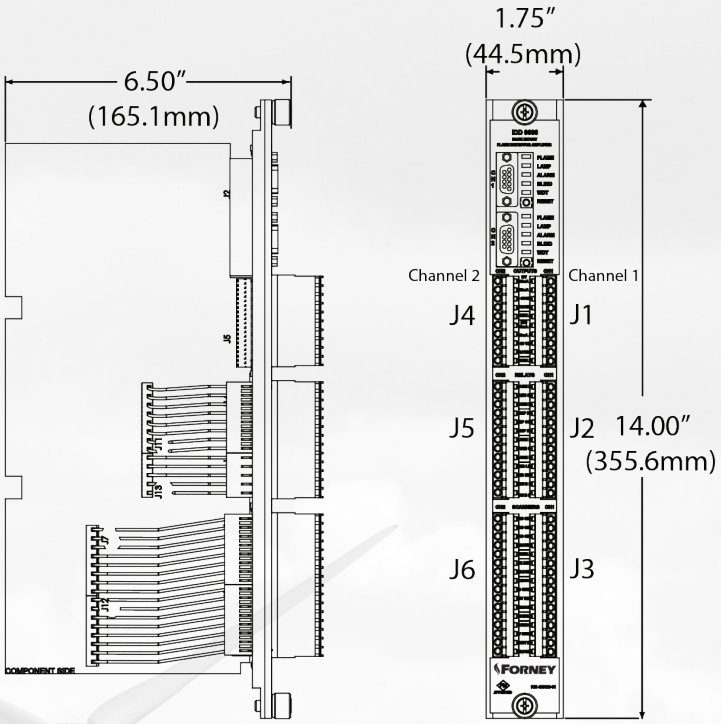
*If using an older Termiflex / SMARTDisplay® terminal with a 25-pin connection, a DB25-pin to DB9-pin adapter is required (Forney Part #408107-01)

Products and Accessories:

	Panel Mount:	Rack Mount:
Dimensions:	10 1/2" x 7 7/8" x 3 7/8" (26.6 cm x 20 cm x 9.8 cm)	6.5 x 14 x 1.75 inches (155.6 x 355.6 x 44.5 mm)
Weight:	5 lbs. 3 oz. (2.35 kg)	1 lb 7 oz. (0.68 kg)
Approvals:	CE and Factory Mutual (FM)	Factory Mutual (FM)
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	
Output Relay Ratings (SPDT):	3 A at 125 VAC, 250 VAC & 30 VDC *3 relays are available for each channel (Lamp, Main Flame & Alarm).*	
Flame Strength:	4-20 mA or 0-10 VDC (sourcing)	
Flame Failure Response Time (FFRT):	1.0, 2.0, 3.0 or 3.8 seconds	
Flame Pickup Time:	less than 2 seconds	
Nonvolatile RAM:	8 complete operating profiles	

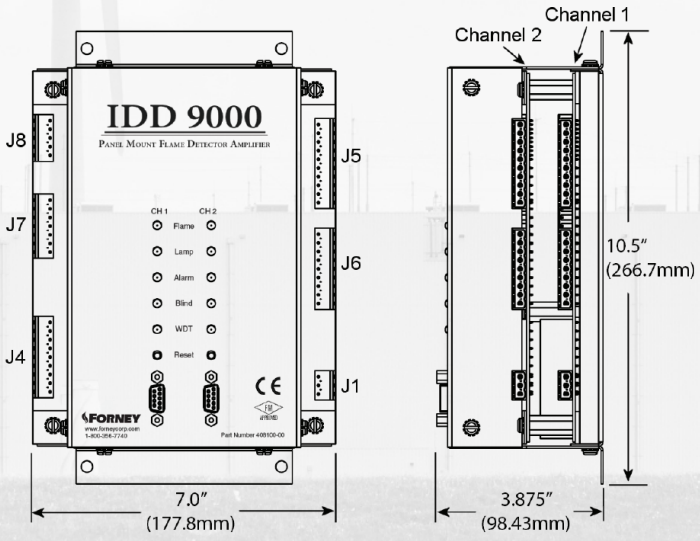
Pub # 404005-21
Rev 11/2020

Rack Mount IDD 9000



The RM IDD 9000 is a dual channel amplifier with a separate identical CPU Processor for each channel. The right side is for Channel 1 and the left side is Channel 2. The RM IDD 9000 is designed for installation into an amplifier rack (Part # 404325-02) in an equipment cabinet.

Panel Mount IDD 9000



The PM IDD 9000 is available as single or dual channel. The dual channel has a separate, identical PCB motherboard for each channel. Each board contains six connectors on the side panels. Dual channel shown, bottom board is removed on single channel configuration.