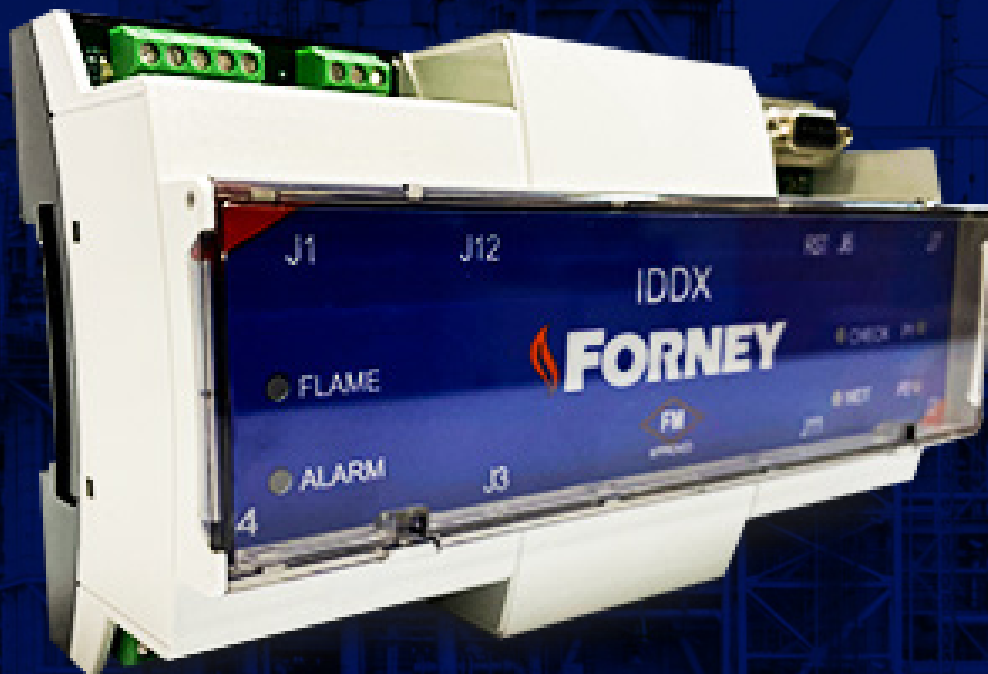# FORNEY

IDDX Flame Detector Amplifier

The IDDX Flame Detector Amplifier provides enhanced discrimination and tuning for NFPA compliant systems.

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 IDDX employs a Digital Signal Processor (DSP) based flame signal processing method to offer advanced tuning capabilities necessary for a NFPA compliant system.

The IDDX 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 IDDX is designed for mounting on a DIN rail.

Compatibility

- Amplifier Upgrades - The IDDX can replace most Forney panel mount flame amplifiers in any application with complete compatibility.

- Flame Detector - Works with all versions of Forney's IDD detectors.

- Analog Output - Flame intensity output is available in 4-20 mA.

FEATURES & BENEFITS

- Enhanced Discrimination and Tuning - Increased IDD frequency response options along with spectrum weighting capability for tuning to unique flame patterns.

- Storage for four 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.

- Fault detection if IDD detector is disconnected.

- Operates on 24 VDC input power (external) for improved immunity to electrical noise.

- Improved Diagnostics.

- Small form factor, DIN Rail mounted helps in reducing panel space requirement.

Approvals

- All IDDX Amplifiers are Factory Mutual (FM) approved

Forney Corporation • 16479 North Dallas Parkway, Suite 600 • Addison, TX 75001 • 800-356-7740 • www.forneycorp.com   **2**

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Products and Accessories:

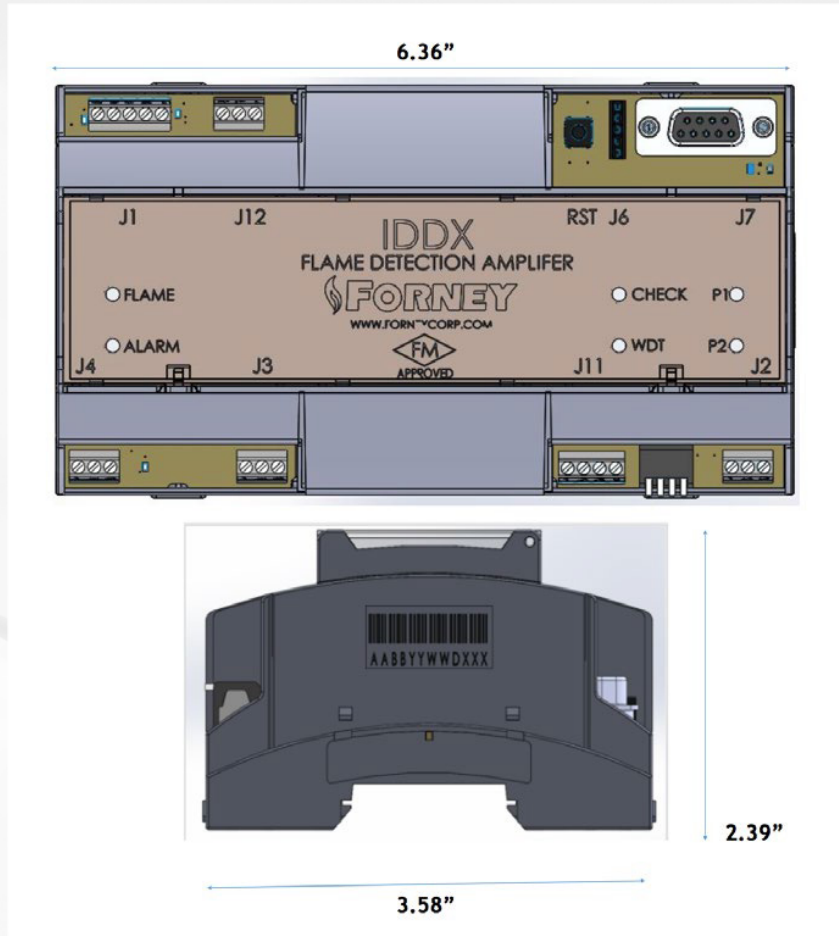|	
Amplifier Tuning Kit	Part #408103-01
Termiflex / SMARTDisplay® terminal with 9-pin connector*	Part #408106-01
Cable 40' (12.2 m) for IDD	Part #399854-04

Compatible Flame Detectors:
   IDD-II, Filtered, Infrared Detector
   IDD-IIU, Unfiltered, Infrared Detector
   IDD-IIL, Infrared Detector for Lignite
	Part #38321-21
	Part #38321-22
	Part #38321-23

*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
Dimensions	6.36" x 3.58" x 2.39" (16.2 cm x 9.1 cm x 6.1 cm)
Weight	0.62 lbs. (280 gms.)
Approvals	Factory Mutual (FM)
Temperature	32°F to 140°F (0°C to 60°C)
Humidity	RH 95% 104°F (40°C)
Power Requirements	24 VDC (+/-10%)
Output Relay Ratings (SPDT)	5A at 125 VAC, 250 VAC & 30 VDC *2 relays are available (Flame & Alarm)*
Flame Strength	4-20 mA (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	4 complete operating profiles

IDDX Flame Detector Dimensions

IDDX Flame Detector Diagram