

## Model SF-NP16E PoE+ Network to 16 W Mono Audio Amplifier - 70 V or 100 V

- 16 Watts RMS Constant Voltage Amplifier
- 70 V or 100 V Output
- Plenum Rated per UL 2043 Standard
- Converts One Dante Network Audio Signal to a Mono Constant Voltage Output
- Selectable Dante Sample Rates: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
- 0 dBFS Input for 16 W Output
- Automatically limits supply current to protect against PoE+ port shutdown
- VCA Control on Detachable Terminal Block
- External Control Using 10 K $\Omega$  Potentiometer or 0 to 10 Vdc
- Compatible with RDL Remote Level Controls
- Special Software Not Required for Module Setup
- LED Indicator for Network Sync
- High-Efficiency Class D Operation
- Thermal and Short-Circuit Protection



The SysFlex<sup>®</sup> series is a family of A/V modules providing complex interface solutions at the click of a connector. SysFlex modules provide connectorized interface between data networks and analog and digital audio devices, networked and conventional amplifiers and other application-specific solutions. In RDL's tradition of versatility, SysFlex modules can be used right where they are needed: Rack-mounted, Surface-mounted, or unmounted. They are light-weight, compact and easy to install with simple, straightforward switch settings and LED indicators. Modules quickly snap into the SysFlex rack mount and each is firmly secured with a single screw. The racking system segregates network and power wiring from the audio and digital audio connectors. For connectorized network audio endpoints and A/V system components that provide unparalleled performance and advanced features without giving up simplicity and ease of installation, SysFlex is the industry's best value.

**APPLICATION:** The SF-NP16E is an audio power amplifier that converts one Dante network audio channel to a 70 V or 100 V constant voltage amplified output. The output provides 16 watts for a network digital audio level of 0 dBFS. Special software is not required to configure the module.

The SF-NP16E is equipped to operate from a PoE+ enabled network switch. The SF-NP16E may be powered from an external 24 Vdc power supply, available separately.

If a PoE+ powered device instantaneously demands excessive power from a PoE+ port, that port can shut off its output voltage, causing a prolonged disruption of the device operation. The SF-NP16E monitors the amplifier power and limits the current to protect the PoE+ port against shutting down even during extreme feedback or square wave modulation conditions. A red rear-panel PORT PROTECT LED flashes when the SF-NP16E reduces power consumption to prevent shutdown of the PoE+ port voltage.

The SF-NP16E is equipped with an internal VCA for setting the output level. A detachable terminal block provides for the connection of an external 10 K $\Omega$  potentiometer or a 0 to 10 Vdc control voltage. The amplifier gain remains at maximum when the VCA input terminal is not connected. RDL remote controls are available to provide single-turn, multi-turn (rotary encoder) or pushbutton (ramp or fixed level selection) user level control. VCA control insures long term noise-free level adjustment.

The module is equipped with both thermal and output short-circuit protection. The high-efficiency Class D output stage produces minimal heat for all levels of expected voice or music modulation. An LED MUTE indicator glows yellow when the output is muted. Valid synchronization to the Dante network is indicated by a green LED visible from the front of the unit.

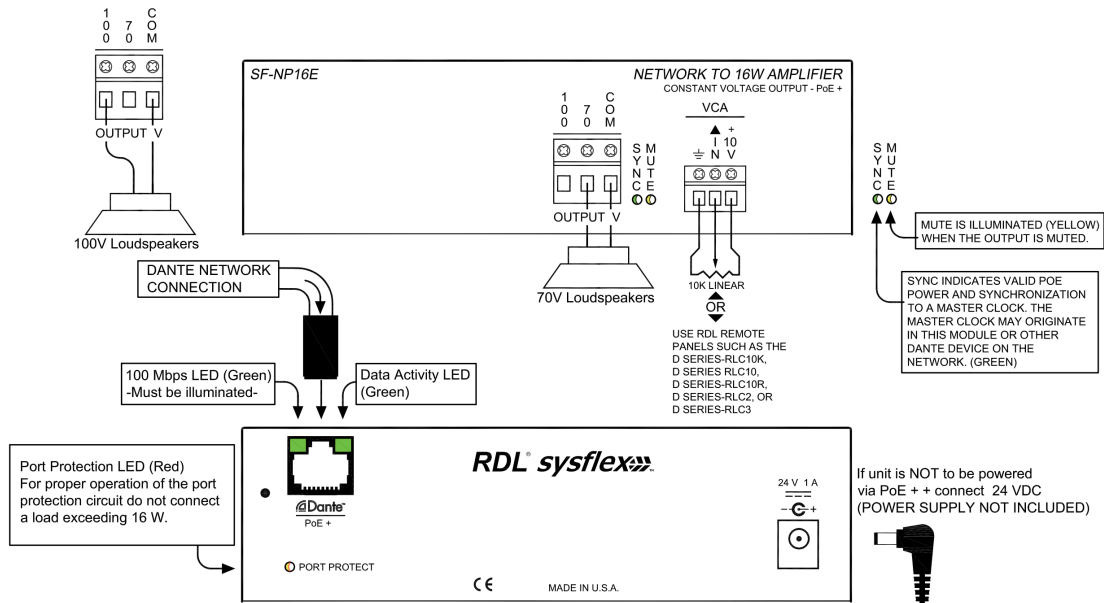
The SF-NP16E is constructed in a durable, professional all-metal enclosure suitable for free-standing, surface-mounted or rack-mounted operation. This full-featured SYSFLEX product is engineered and manufactured in the U.S.A for continuous duty in demanding installations. The versatility of SYSFLEX products adds enormous flexibility in the design and installation of professional A/V systems.

# Model SF-NP16E

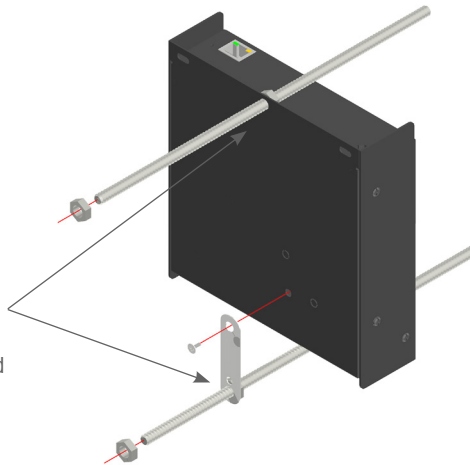
## PoE+ Network to 16 W Mono Audio Amplifier - 70 V or 100 V

## Installation/Operation

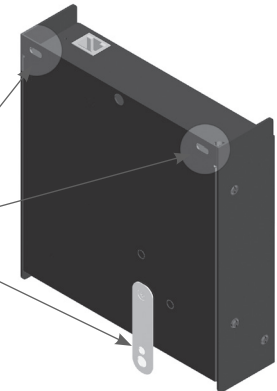
**CE** Declaration of Conformity available from [rdlnet.com](http://rdlnet.com).  
Sole EMC specifications provided on product package.  
Specifications are subject to change without notice.



To install the amplifier to 1/4" - 20 all-thread install the mounting tab to the bottom of the unit with the included screw. (Position the concave side toward the bottom of the unit.) Attach the all-thread through the large hole in the mounting tab and another piece in the mounting hole in the chassis flange. Secure with nuts. (All-thread and nuts not included)



Cut outs and mounting tab may be used to suspend the unit above the ceiling using hanger wire.



### TYPICAL PERFORMANCE

Network Connector: RJ45 with Link and Speed indicators  
Digital Audio Ethernet Protocol: Dante  
Transmission Rate: 100 Mbps  
Sample Rates Supported: 44.1 kHz, 48 kHz (default), 88.2 kHz, 96 kHz  
Bit Depth Supported: 24 bits  
Reference Level: 0 dBFS = 16 W

Power Amplifier Output: 16 W RMS (70 or 100 V)  
Frequency Response: +0/-3 dB (50 Hz to 20 kHz)  
THD+N: < 1% (1 kHz)  
Noise: < -90 dB (below max power); < -80 dB (below 1/8 power)  
Indicators (3): Front-panel: Sync (green), Amplifier muted (yel), Rear-panel: Port Protect (red), Ethernet Link and Speed (2)  
VCA: 0 to 10 Vdc control, detachable terminal block (compatible with RDL VCA wall controls)

Ambient Operating Environment: 0° C to 40° C Maximum; 20° C Recommended  
Power Requirement: 24 Vdc @ 1000 mA, or PoE  
PoE: Class 4, IEEE 802.3at (PoE +)  
Plenum Rating Standard: UL 2043

Dimensions and Weight: Height: 1.7 in. (4.32 cm); Width: 5.83 in. (14.8 cm); Depth: 6.45 in. (16.38 cm)  
Package Type: Cardboard Box  
Package Dimensions: 10.75 x 9.125 x 3.9375 in.  
Shipping Weight: 3.12 lbs.  
WEEE weight: 2.76 lbs.  
Tariff code: 8518.50.0000

### Radio Design Labs Technical Support Centers

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