

The *N-TRON*® *100-POE4* Industrial PoE Mid-Span Injector is designed to transmit power along with data over an Ethernet network. It is ideal for powering PoE capable devices where running an AC power feed is either not possible or cost effective. PoE allows an end user to power a PoE camera, wireless access point, or any other PoE capable device without the need for running separate wires for power. This also allows the ability for a centralized battery backup for all these devices.

## PRODUCT FEATURES

- Compact, Space Saving Package
- IEEE 802.3af Compliance
- American Bureau of Shipping (ABS) Type Approval
- EN50155 for Railway applications
- Four 10/100BaseTX RJ-45 Ports (Data In)
- Four 10/100BaseTX RJ-45 PoE Ports (Data & Power Out)
- Unmanaged Operation
- Extended Environmental Specifications
- -40°C to 85° Operating Temperature
- Automatic Detection of Connected PoE Devices
- Up to 0.8 Gb/s Maximum Throughput
- Full Wire Speed Communications
- Supports 15.4 Watts per port (13 Watts at the PD)
- Redundant Power Inputs (46-49 VDC)
- Power Fault Status LED
- LED PoE Status Indication
- Hardened Metal DIN-Rail Enclosure

## PRODUCT OVERVIEW

Ideal for upgrading non-PoE network infrastructures with PoE capabilities, the *100-POE4* Industrial PoE Mid-Span Injector is designed to solve the most demanding industrial communications requirements by providing high throughput and minimum downtime while also providing power to PoE capable devices over the existing Ethernet network.

The *100-POE4* provides four pairs of two RJ-45 10/100BaseTX copper ports. Each pair consists of one RJ-45 port that connects to an existing network, and one RJ-45 PoE capable port that can send data and, up to 15.4 watts of power to a PoE capable device. The data on all four pairs are isolated from each other allowing for ease in upgrading non-PoE network infrastructures.



The *105FX-POE* automatically detects any PoE device that is connected and powers it accordingly. If a PoE fault is detected on a specific port the Auto-disconnect feature disables PoE power on that port, allowing only data communications to pass. This reduces the risk of damaging costly equipment.

The *100-POE4* is an ideal candidate for providing data and power to wireless LAN access points, network cameras, VoIP, and other PoE capable devices. The product also helps reduce costs by eliminating the need for electrical wiring and electrician expenses.

The *100-POE4* has extended operating environmental specifications to meet the harsh needs of the industrial environment. For cost savings and convenience the device can be DIN-Rail mounted alongside Ethernet I/O or other Industrial Equipment.

To increase reliability the *100-POE4* provides dual redundant power inputs. Dual LED's indicate that power is being applied with a valid power source on the respective redundant power input. This allows for easy monitoring of the two redundant power inputs. A global power LED is also present at the top of the unit to indicate an overall valid power source or when a power bus fault occurs.

Secure online  
ordering  
24/7/365 from

**B & B electronics**  
MANUFACTURING COMPANY

International Headquarters: 707 Dayton Road - PO Box 1040 - Ottawa, IL 61350 USA  
815-433-5100 Fax 815-433-5104 [www.bb-elec.com](http://www.bb-elec.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-elec.com](mailto:support@bb-elec.com)

European Headquarters: Westlink Commercial Park - Oranmore Co. Galway - Ireland  
+353 91 792444 Fax +353 91 792445 [www.bb-europe.com](http://www.bb-europe.com) [orders@bb-europe.com](mailto:orders@bb-europe.com) [support@bb-europe.com](mailto:support@bb-europe.com)

## 100-POE4 SPECIFICATIONS

### Case Dimensions

Height:	3.5"	(8.9cm)
Width:	1.5"	(3.8 cm)
Depth:	3.6"	(9.0 cm)
Weight:	0.7 lbs.	(0.32 kg)
DIN-Rail:	35mm	

### Electrical

Input Voltage:	46-49 VDC
Steady Input Current Under Full Load:	1.6 A @48V
Steady Input Current Under No Load:	30mA@48V
Inrush:	27Amp/1.5ms@48V

### Environmental

Operating Temperature:	-40°C to 85°C
Storage Temperature:	-40°C to 85°C
Operating Humidity:	10% to 95% (Non Condensing)
Operating Altitude:	0 to 10,000 ft.

### Reliability

MTBF:	>2 Million Hours
-------	------------------

### Network Media

10BaseT:	>Cat3 Cable
100BaseTX:	>Cat5 Cable

### Connectors

10/100BaseTX:	Eight (8) RJ-45 Copper Ports
---------------	---------------------------------

### Recommended Wiring Clearance

Front:	2" (5.08 cm)
Top:	1" (2.54 cm)

## Ordering Information

100-POE4	Four Pair 10/100BaseTX Ports Four POE Ports
NTPS-48-5	DIN-Rail Power Supply 48V @ 5 Amp

## BENEFITS

### PoE Industrial Network PSE

- Compact Size / Small Footprint
- Ability to Power Devices via LAN
- Eliminates need for Costly Electrical Wiring
- Extended Environmental Specifications
- Hardened Metal DIN-Rail Enclosure
- High Performance
- High MTBF >2M Hours
- ESD Protection Diodes on RJ-45 Ports
- Surge Protection Diodes on Power Inputs

### Ease of Use

- Plug & Play Operation
- Unmanaged Operation
- Ideal for Network Expansion
- Auto-Detection of Connected PoE Devices
- Dual PoE Status LED's per port

### Increased Performance

- Full Wire Speed Communications
- Auto-Disconnect of PoE Port if Fault is Detected

### Regulatory Approvals

*FCC Title 47 Part 15 Class A*

*UL Listed (US and Canada) per ANSI/ISA-12.12.01-2000, Class I, Div 2, Groups A,B,C,D,T4A*

*ICES-003- Class A*

*CE: EN61000-6-2,4*

*EN61000-4-2,3,4,5,6*

*EN55011*

*ABS Type Approval for Shipboard Applications*

*DNV Type Approval Certification*

*EN50155 for Railway Applications*

*GOST-R Certified; RoHS Compliant*

*Designed to comply with:*

*IEEE 1613 for Electric Utility Substations;*

*NEMA TS1/TS2 for Traffic Control Equipment*

## Contact Information

*Secure online  
ordering  
24/7/365 from*

**B & B electronics**  
MANUFACTURING COMPANY

**International Headquarters:** 707 Dayton Road - PO Box 1040 - Ottawa, IL 61350 USA  
815-433-5100 Fax 815-433-5104 [www.bb-elec.com](http://www.bb-elec.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-elec.com](mailto:support@bb-elec.com)

**European Headquarters:** Westlink Commercial Park - Oranmore Co. Galway - Ireland  
+353 91 792444 Fax +353 91 792445 [www.bb-europe.com](http://www.bb-europe.com) [orders@bb-europe.com](mailto:orders@bb-europe.com) [support@bb-europe.com](mailto:support@bb-europe.com)

