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LifeSafety Power®

NPM Single Port Midspan Injectors Installation Manual

NETPOWER®

RoHS compliant

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P03-028 Rev A06

Description

The LifeSafety Power NPM line of PoE MidSpan Injectors are available at 15.5W (IEEE 802.3af) and 30W (IEEE 802.3at).

The NPM MidSpan Injectors provides PoE compliant power to PoE compatible devices such as IP cameras, IR illuminators, access control panels and readers, or to non-PoE devices using a PoE Extractor such as the NetPower NPE130.

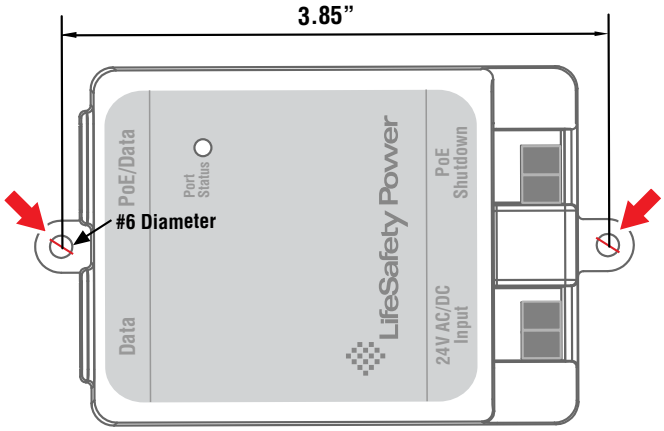
Regulatory Information

The equipment discussed within this manual has been tested to the following standards:

- UL294b
- UL/CUL 60950-1
- CSA C22.2 No. 205-M1983

Mounting the NPM Series Module

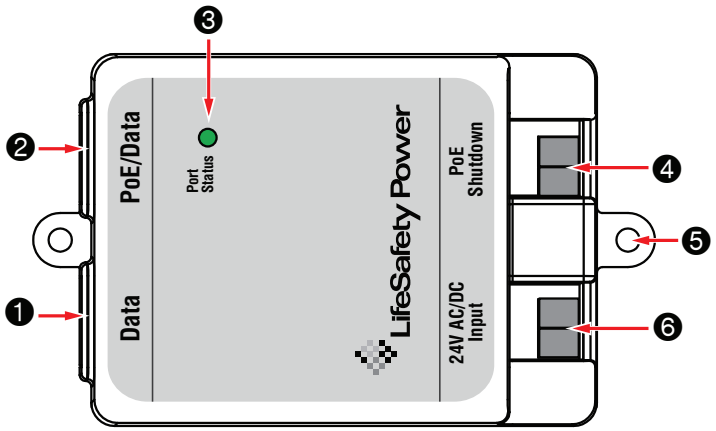
The NetPower NPM Midspan Injectors mount using two screws in the mounting tabs. The NPM is also available in a DIN Rail mountable version. The unit must be mounted in a secure, indoor, dry location to a suitable surface, using suitable hardware.



Specifications

	NPM115	NPM130
Input Voltage	24VAC or 24VDC ±15%	24VAC or 24VDC ±15%
Input Current	1.4A Max. AC or DC	2.6A Max. AC or DC
Output Power	15.4W (IEEE802.3af)	30W (IEEE802.3at)
Output Voltage	50VDC	50VDC
Output Current	300mA	600mA
Shutdown Terminals	5-24VDC @ 10mA Max.	5-24VDC @ 10mA Max.
Data Cable Length	328 ft (100 m) Max.	328 ft (100 m) Max.
Data Rate	10/100 Base-T	10/100/1000 Base-T
ESD Immunity	8kV	8kV
PoE Pin Assignment	Positive (VCC+): Pins 4, 5	Positive (VCC+): Pins 4, 5
	Negative (VCC–): Pins 7, 8	Negative (VCC–): Pins 7, 8
	Data: Pins 1, 2, 3, 6	Data: Pins 1, 2, 3, 4, 5, 6, 7
Operating Ambient Temperature	0 to 49°C, Indoor Dry Locations	0 to 49°C, Indoor Dry Locations
Storage Temperature	–20 to +70°C	–20 to +70°C
Operating Humidity	5 to 95% (Non-Condensing)	5 to 95% (Non-Condensing)
Size	4.20" L x 2.50" W x 1.20" D (107mm L x 64mm W x 31mm D)	4.20" L x 2.50" W x 1.20" D (107mm L x 64mm W x 31mm D)
Weight	0.25 lb (0.11 kG)	0.30 lb (0.14 kG)

NPM115/130 – Module Overview



❶ *Data*

This is the non-PoE input from the network switch. This connector is an RJ45 jack and accepts a CAT-5 cable.

❷ *PoE/Data*

This is the PoE output to the camera or other device to be powered. See the Specifications section for ratings. This connector is an RJ45 jack and accepts a CAT-5 cable.

❸ *Port Status (Green)*

This LED shows the status of the NetPower MidSpan Injector.

See the appropriate status chart for more information.

❹ *PoE Shutdown*

This input will shut down the PoE output of the NetPower MidSpan Injector. This can be useful for rebooting devices that have become non-responsive. These terminal strips accept wire sizes from AWG14 - AWG22. To shut down the PoE Output, apply any DC voltage within the ratings shown under "Shutdown Terminals" in the Specifications section of this manual.

❺ *Mounting Tab*

The mounting tab centers are spaced 3.85" on center. Refer to the mounting guide (page 1) for mounting details.

❻ *24VAC or 24VDC Input*

This is the power supply input for the NetPower MidSpan Injector. These terminal strips accept wire sizes from AWG14 - AWG22. See the Specifications section for more information. When using DC voltage, the voltage may be connected in either polarity.

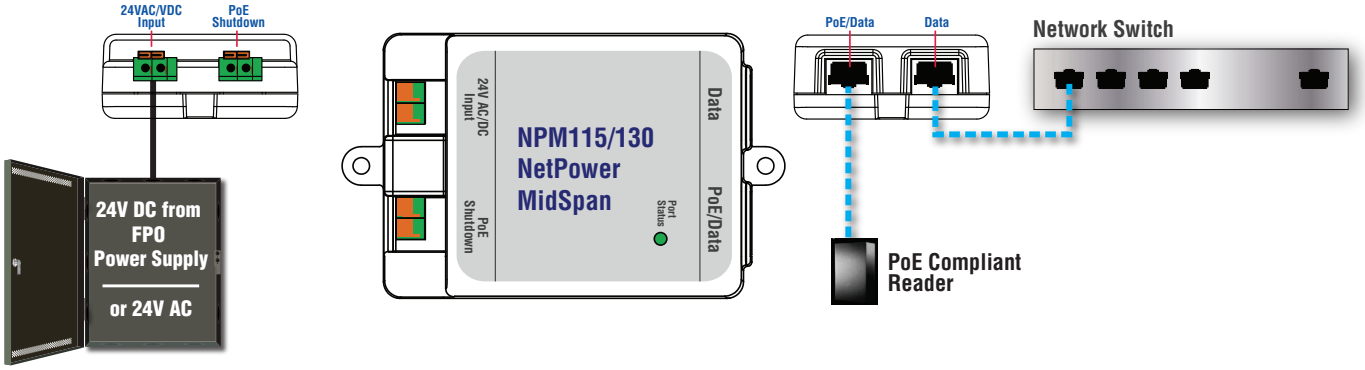
NPM115 / 130 - Status LED

NPM115 Port Status	LED State	Flash Pattern
No Primary Power to Unit	OFF	LED OFF
No Connection on PoE/Data Port	OFF	LED OFF
Operation Normal	ON	LED ON
Improper Load Device	1 Flash	☐ ✻ ✻ ✻ ☐ ✻ ✻ ✻ ☐ ✻ ✻ ✻
Improper Load Device	2 Flashes	☐ ☐ ✻ ✻ ☐ ☐ ✻ ✻ ☐ ☐ ✻ ✻
Port Overload Fault	5 Flashes	✻ ✻ ✻ ✻ ☐ ☐ ☐ ☐ ☐ ✻ ✻✻✻

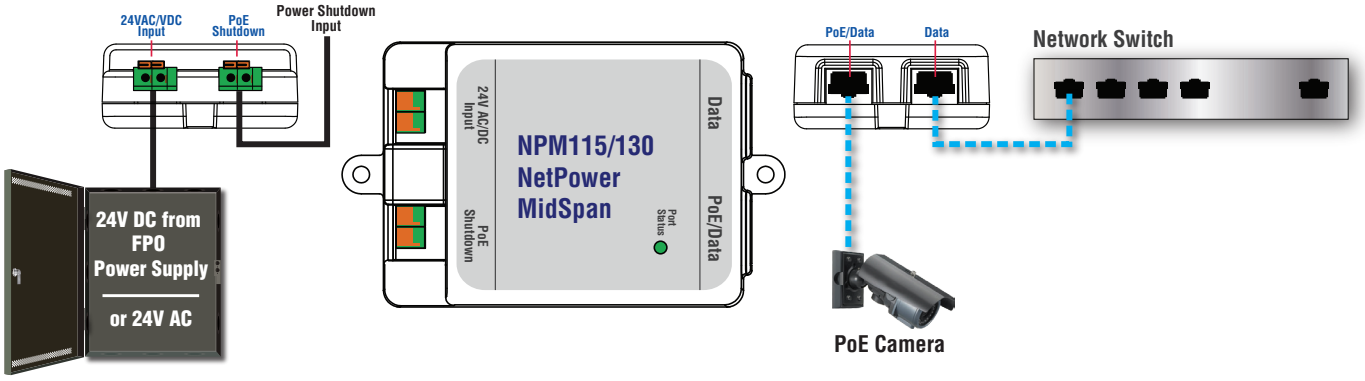
NPM130 Port Status	LED State	Flash Pattern
No Primary Power to Unit	OFF	LED OFF
No Connection on PoE/Data Port	OFF	LED OFF
Operation Normal	ON	LED ON
Improper Load Device	5 Flashes	✻ ✻ ✻ ✻ ☐ ☐ ☐ ☐ ☐ ✻ ✻✻✻
Port Overload Fault	2 Flashes	☐ ☐ ✻ ✻ ☐ ☐ ✻ ✻ ☐ ☐ ✻ ✻

Example Wiring - Block Diagrams

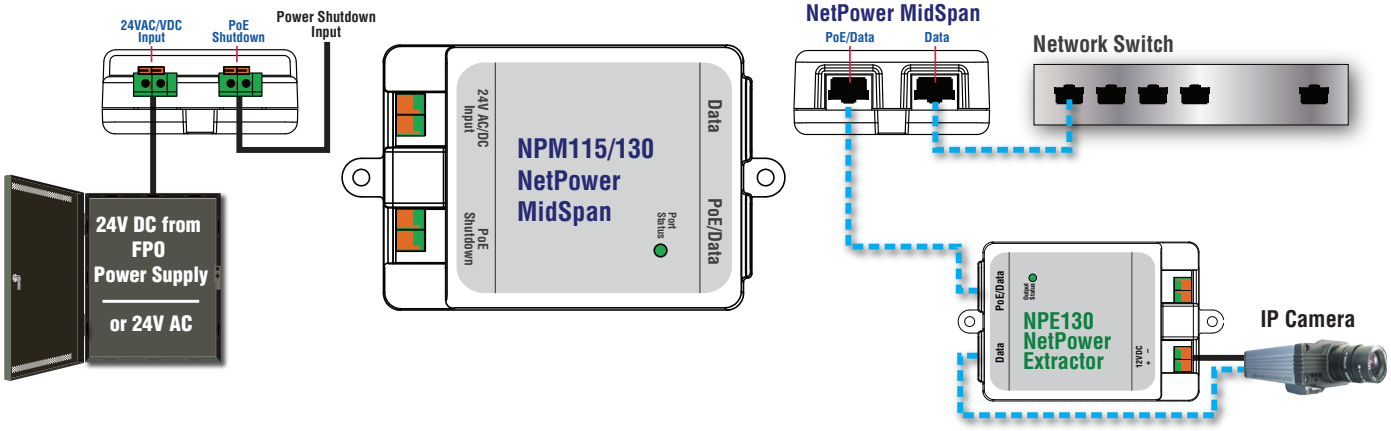
a) Powering a PoE Reader



b) Powering a PoE Camera

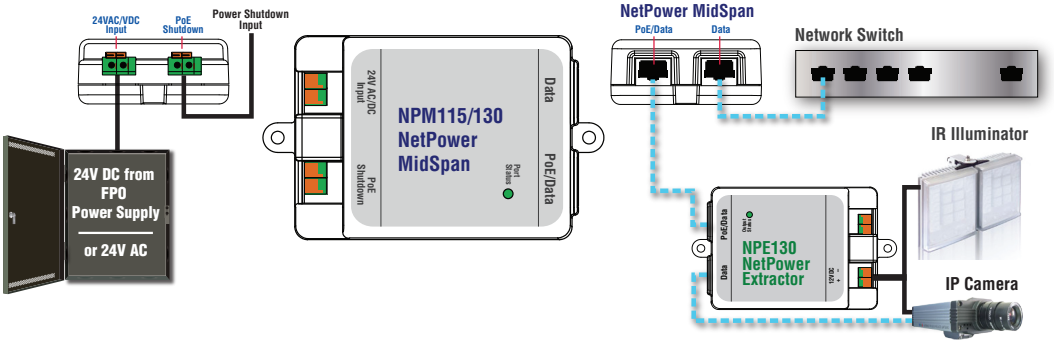


c) Power & Data for a non-PoE IP Camera

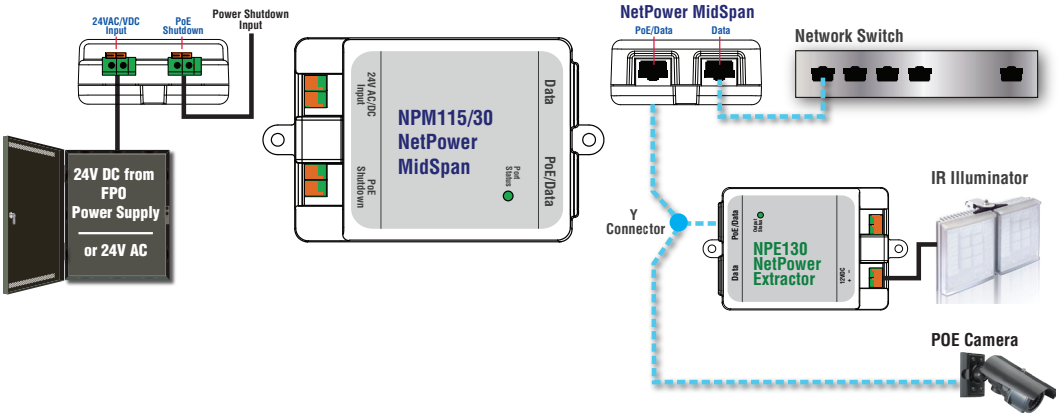


Example Wiring - Block Diagrams (continued)

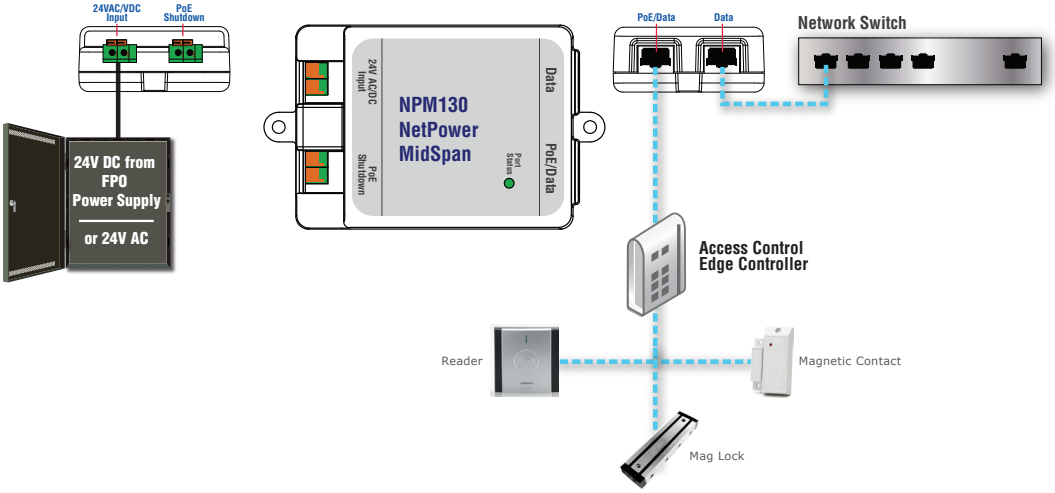
d) Power & Data for a non-PoE IP Camera and Illuminator



e) Power & Data for PoE Camera and non-PoE IR Illuminator



f) Powering a PoE Access Controller with NPM130



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