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Communication Networks

INSTALLATION AND OPERATION MANUAL

CNGE1IPS-95

INDUSTRIAL 60/95W POWER OVER ETHERNET (POE++)
MIDSPAN INJECTOR FOR 10/100/1000T(X)

The ComNet CNGE1IPS95 is an industrial power over Ethernet (PoE+) midspan injection module that injects 50-57 VDC at up to 95 W to any network cable. Operating power and 10/100/1000T(X) Ethernet data are easily combined on one cable, eliminating the need to install additional power outlets and electrical cabling. The CNGE1IPS95 is fully compliant with the requirements of IEEE 802.3at for Power Sourcing Equipment (PSE), and features auto detection of powered devices (PDs). Transmission distances of up to 330 feet (100 meters) are supported, and this injector supplies operating power for all PDs drawing a maximum of 95 watts. Ideally suited to fiber optic, wireless, or other networks where it may be difficult to furnish operating power to the PDs, the CNGE1IPS95 is a true plug-and-play product requiring no user configuration or other set-up.

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FCC Marking

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE Marking

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

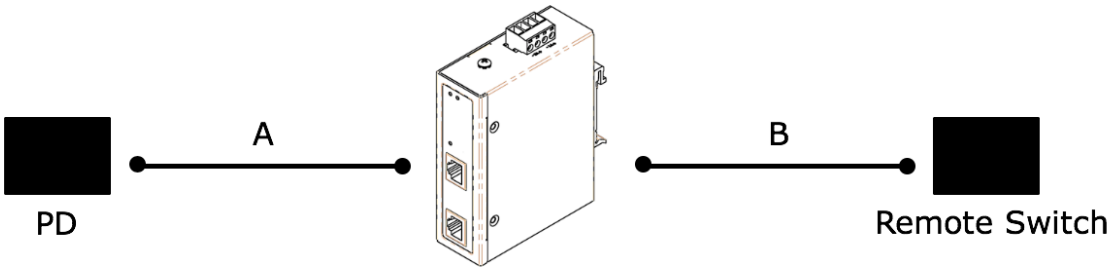
Trademarks

All trade names and trademarks are the properties of their respective companies.

Introduction

This rugged designed Industrial Gigabit PoE Injector supports high-powered PoE function, being able to power up a PD device up to 95 Watts. It will not only pass data traffic, but also provide PSE power to your PD WiFi or IP CAM application. This product has been rigorously tested with various PD models, including the 95-Watt Bosch MIC camera in harsh environment applications. The CNGE1IPS95 can be DIN-Rail or wall-mounted, and can tolerate -40°C to 75°C in harsh environment to perform a reliable network.

NOTE: Always make sure the total length of the TX cable DOES NOT exceed 100 meters. Total length is defined as length A + length B



Length A + Length B < 100 meter

During 100Mbps transmission, the maximum total cable length is 100 meter.

POE signal attenuates every meter, the built-in transformer allows the attenuation to reach 100 meters long to follow IEEE802.3af/at standard. The higher quality PD you connect to, the more reliable the network will be. When connected to a poor quality PD, it cannot generate a strong signal to send to remote switch. Always make sure you have a high quality PD to perform a desired network.

Installation package

The following items are shipped with this device:

» DIN-Rail Bracket
» Wall-Mount Plates (2)
» Screws (4)
» 4-pin Terminal Block

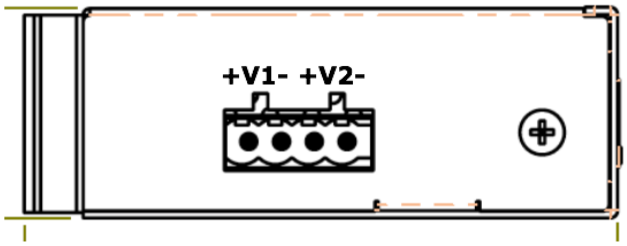
Power connection

This unit provides a 4-pin terminal block. It can be operated using 48-56 VDC power source. Always make sure that your input voltage is within this supported voltage range.

To make power connection – Follow the printed polarity for V+, V- and Ground. Connect positive wire to V+, connect negative wire to V- and also connect neutral wire to ground.

+V1- is for power input 1 connection.

+V2- is for power input 2 connection; this unit supports two power inputs.



Connecting procedure:

» Step 1 – Take out 4 pin terminal block located in the included mounting kit package

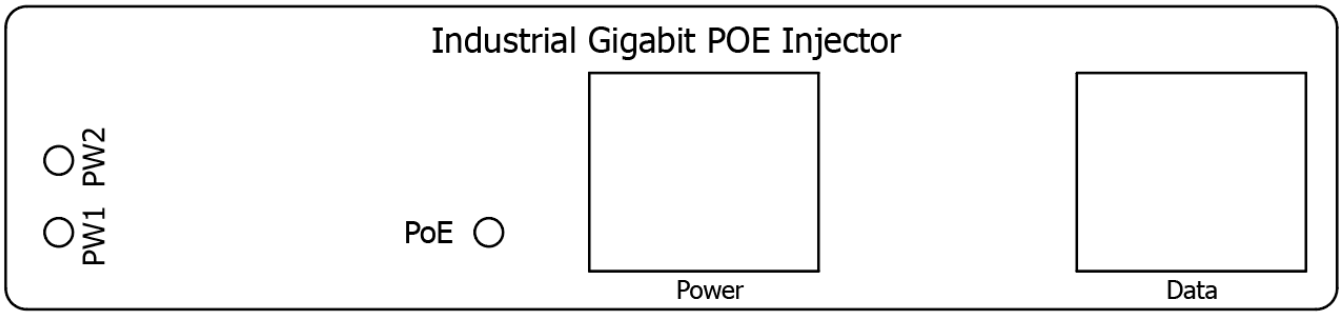
» Step 2 – Connect power wire to +V1- or +V2- with correct polarity

» Step 3 – Plug into terminal block socket shown above. Polarity needs to match V+ and V-.

WARNING – Always SHUT OFF power source to connect power wire.

WARNING – Excess input voltage may damage this unit.

LED Indicators



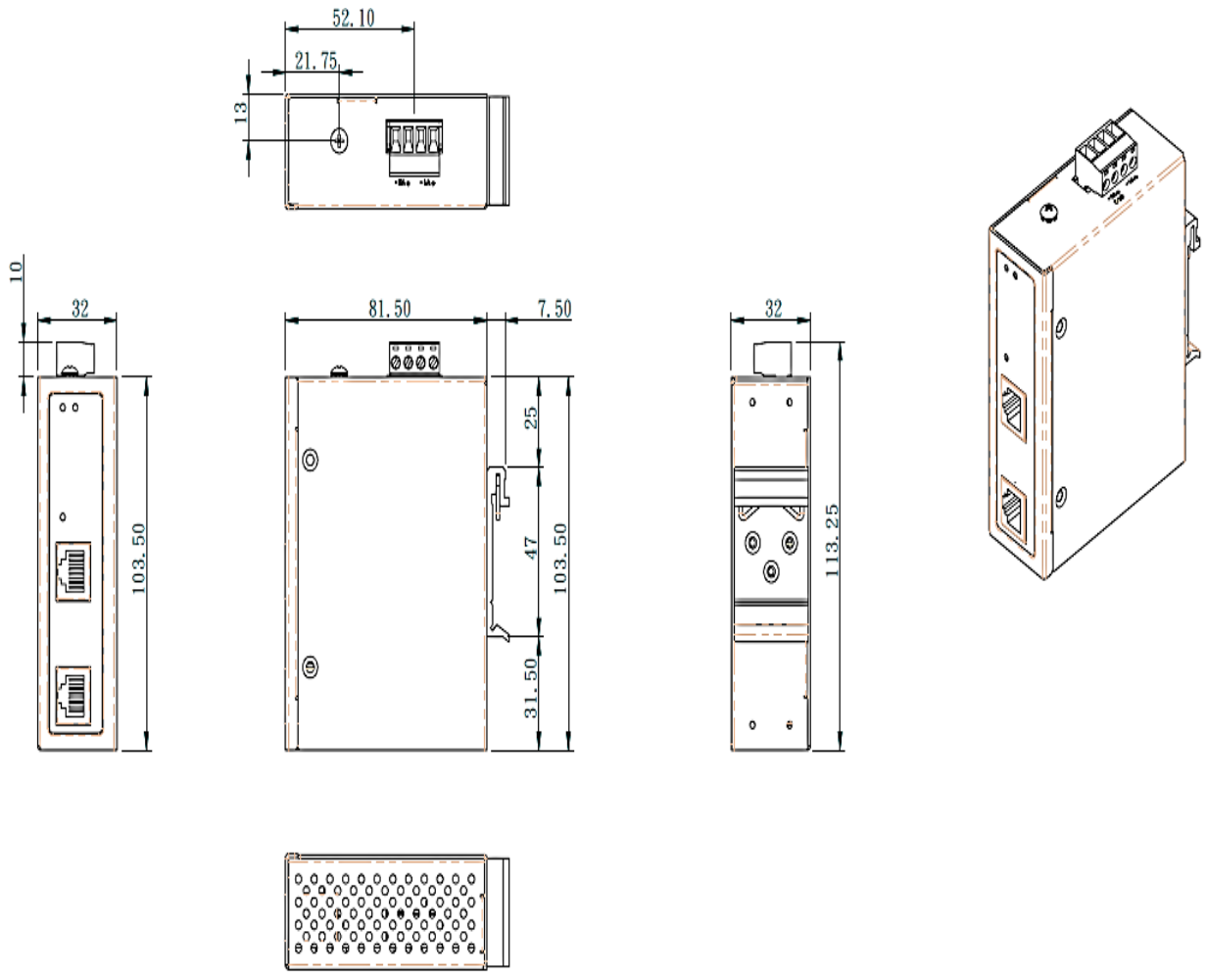
LED	Signal	Definition
PoE	Solid	PoE is active
	Off	PoE is inactive
	Flashing	PoE is detecting
PW1	On	Power 1 is connected
	Off	No power detected at Power 1 input
PW2	On	Power 2 is connected
	Off	No power detected at Power 2 input

Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE802.3af for PoE IEEE802.3at for PoE+ Compliant with 95W Power over HDBaseT (PoH) standard (Microsemi)
Network Connector	1xRJ-45 10/100/1000BaseT(X) Data 1xRJ-45 10/100/1000BaseT(X) Data with PoE Output Power
Network Cable	UTP/STP Cat.5e or above Cable
	EIA/TIA-568 10-ohm (100m)
Protocol	CSMA/CD
LED	PW1, PW 2, PoE
PoE Pin Assignment	Pin 1 (V-), 2 (V-), 3 (V+), 6 (V+) Pin 4 (V+), 5 (V+), 7 (V-), 8 (V-)
Reverse polarity protection	Present
Overload current protection	Present
Power Supply	2 Redundant power source 48V-56V VDC Power Input
Power Consumption	1 W@48 VDC Without PoE
POE power	Maximum PoE power 95 watts at 56 VDC input
Removable Terminal Block	Provide 4 pin terminal block Wire range: 0.34mm^2 to 2.5mm^2 Solid wire (AWG):12-24/14-22 Stranded wire(AWG): 12-24/14-22 Torque:5 lb-In/0.5 Nm/0.56 Nm Wire Strip length: 7-8 mm
Operating Temperature	-40°C~75°C fully tested.
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C~85°C
MTBF	>500,000 hrs (MIL-HDBK-217F) at 25°C
Housing	Rugged Aluminum, IP30 Protection
Case Dimension (L X W X D)	103.5 × 32 × 81.5 mm
Installation mounting	Din-Rail Mounting and Wall Mounting

Certifications	
EN55022/24	ITE equipment
EN55011	Industrial, Scientific and Medical (ISM) equipment
Safety	IEC EN60950-1
EMC/EMS	CE, FCC, VCCI
EMI	FCC Part 15 Subpart B Class A, CE EN 55022 Class A
Vibration	EN 50155 / EN 60068-2-6
Shock	EN 50155 / EN 60068-2-27
Free Fall	EN 50155 / EN 60068-2-32

Housing Dimensions (mm)



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