



Industrial Unmanaged Ethernet Switch

JetNet 3205GP/3205GP-1F/
JetNet 3205G/JetNet 3205G-1F
Industrial 5-port Ethernet (PoE) Switch
User's Manual

DOCUMENT CHANGE SUMMARY		
Edition	Date	Modifications
V1.0	30-Jan,2019	New edition
V1.1	09-Oct 2019	Modified power even to power failure
V1.2	30-Dec 2019	修改圖示為功能地(Ground)
V1.3	11-Aug 2022	Correct (remove) 802.1p from user manual
V1.4	30-Jun 2025	New Beijer Electronics edition

- **Copyright, Trademark, and Proprietary Rights Information**

©2025 Beijer Electronics All rights reserved.

No part of this content may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without written permission from Beijer Electronics and/or its affiliates ("Beijer"). BEIJER reserves the right to revise or change this content from time to time without obligation on the part of BEIJER to provide notification of such revision or change.

- **Disclaimer**

THIS CONTENT AND ASSOCIATED PRODUCTS OR SERVICES ("MATERIALS"), ARE PROVIDED "AS IS" AND WITHOUT WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED. TO THE FULLEST EXTENT PERMISSIBLE PURSUANT TO APPLICABLE LAW, BEIJER DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, FREEDOM FROM COMPUTER VIRUS, AND WARRANTIES ARISING FROM COURSE OF DEALING OR COURSE OF PERFORMANCE. BEIJER does not represent or warrant that the functions described or contained in the Materials will be uninterrupted or error-free, that defects will be corrected, or are free of viruses or other harmful components. BEIJER does not make any warranties or representations regarding the use of the Materials in terms of their completeness, correctness, accuracy, adequacy, usefulness, timeliness, reliability or otherwise. As a condition of your use of the Materials, you warrant to BEIJER that you will not make use thereof for any purpose that is unlawful or prohibited by their associated terms of use.

- **Limitation of Liability**

IN NO EVENT SHALL BEIJER, BEIJER AFFILIATES, OR THEIR OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, SUPPLIERS, LICENSORS AND THIRD PARTY PARTNERS, BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER, EVEN IF BEIJER HAS BEEN PREVIOUSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN AN ACTION UNDER CONTRACT, TORT, OR ANY OTHER THEORY ARISING FROM YOUR ACCESS TO, OR USE OF, THE MATERIALS. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, some of the above limitations may not apply to you.

- **Trademarks**

BEIJER, the BEIJER logo, and JetNet are trademarks of Beijer Electronics and/or its affiliates. Wi-Fi Alliance, Wi-Fi, the Wi-Fi logo, the Wi-Fi CERTIFIED logo, Wi-Fi Protected Access (WPA), the Wi-Fi Protected Setup logo, and WMM are registered trademarks of Wi-Fi Alliance. Wi-Fi Protected Setup™, Wi-Fi Multimedia™, and WPA2™ are trademarks of Wi-Fi Alliance. All other trademarks are the property of their respective owners.

Contents

- I. Important Notes6
- II. Safety Instruction7
- I.I. Symbols7
- I.II. Safety Notes.....8
- 1.1. Introduction9
- 1.1.1. Overview.....9
- 1.1.2. Main Features..... 10
- 2.1. Dimensions 11
- 2.2. Front Panel 13
- 2.3. Bottom View 15
- 2.4. Wiring the DC Power Inputs..... 16
- 2.5 Connect the Dry Relay Output 17
- 2.6. LED Indicators 17
- 3.1. DIN-rail Mounting..... 19

I. Important Notes

- Solid state equipment has operational characteristics differing from those of electromechanical equipment.
- Safety Guidelines for the Application, Installation, and Maintenance of Solid-State Controls describe some important differences between solid state equipment and hard-wired electromechanical devices.
- Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.
- In no event will Beijer Electronics be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.
- The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Beijer Electronics cannot assume responsibility or liability for actual use based on the examples and diagrams.

CAUTION



- ✓ **A Caution symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and or damage to the device.**
Read the following Instructions:
 - Keep vibrations away from it.
 - Products should be used in environments with a pollution index of less than 2.
 - Ensure that the installation environment does not exceed 85% humidity.

WARNING






- ✓ **A Warning symbol indicates a hazardous situation which, if not avoided, could result in damage to the device, death or serious injury.**
Read the following Instructions:
 - In order to prevent electric arcs, never assemble or wire the products with power applied.

- Otherwise, it may result in unexpected and potentially dangerous actions by field devices. Arching poses an explosion risk in hazardous locations. Before assembling or wiring the modules, ensure that the area is non-hazardous or that the system power has been removed accordingly.
- Check the rated voltage and terminal array before wiring. Avoid environments over 50°C of temperature. Avoid placing it directly in the sunlight.
- Ensure that inputs and outputs are made according to the module specification. Wire the system using standard cables.
- In order to avoid an electric shock or malfunction, do not touch any terminal blocks or IO modules while the system is running.
- Keep away from the strange metallic materials not related to the unit and wiring works should be controlled by the electric expert engineer. Else it may cause the unit to a fire, electric shock or malfunction.
- Modules should not be placed near inflammable materials. A fire may result if it is not handled properly.

II. Safety Instruction

I.I. Symbols

<p>CAUTION</p> 	<p>A Caution symbol indicates a potentially hazardous situation to you.</p>
<p>WARNING</p> 	<p>A Warning symbol indicates situations that can be potentially lethal or extremely hazardous to you.</p>
<p>ATTENTION</p> 	<p>An Attention symbol indicates potential damage to programs, devices, or data.</p>
<p>IMPORTANT</p>	<p>Identifies information that is critical for successful application and understanding of the product.</p>

I.II. Safety Notes

WARNING



The modules are equipped with electronic components that may be destroyed by electrostatic discharge. When handling the modules, ensure that the environment (persons, workplace and packing) is well grounded. Avoid touching conductive components, M-bus and Hot swap-bus pin.

Chapter 1. Overview

1.1. Introduction

1.1.1. Overview

This document describes the method of how to use the JetNet series Industrial 5-port Ethernet (PoE) switch, including the installation and the specifications. Following this user manual, you can get full concepts about the JetNet 3205G series switch and all information to help you construct the network infrastructure. The following is the brief introduction of the JetNet 3205G series switch.

Industrial Gigabit (PoE) Ethernet Switch

The JetNet 3205G/JetNet 3205G-1F/JetNet 3205GP/JetNet 3205GP-1F is a 5-port industrial Gigabit Ethernet switch designed with enhanced design specification, including wider operating temperature and power input range to best fit in heavy industrial field applications. It also equipped a rugged metal case with thirty grade ingress protection to against damaged solid objects or dust; With the excellent characteristics of heat dissipation, the JetNet 3205G series has better survive ability than ordinary Gigabit Ethernet switch which is enclosure by steel metal with various heat dissipation holes.

Flexible Optical adopt ability (JetNet 3205G-1F/JetNet 3205GP-1F)

As the trend of fiber interface, the JetNet 3205G-1F/JetNet 3205GP-1F combines a hot-swappable socket for Small Form-factor Pluggable (SFP) fiber transceiver. To adopt different types of fiber optical cable or enlarge fiber network campus, the JetNet 3205G-1F/JetNet 3205GP-1F just need replace new fiber transceiver to meet the specification of optical fiber cable and achieve best inventory performance.

Fault Alarm

The JetNet 3205G series provides an alarm relay to trigger out a real alarm signal for power alarm. When JN 3205G series lose one of DC power input, the two wires attached to fault contact would form an open circuit. The alarm mechanism can trigger an external alarm equipment to inform maintenance I.T. engineers. It saves lots of maintenance time saving.

1.1.2. Main Features

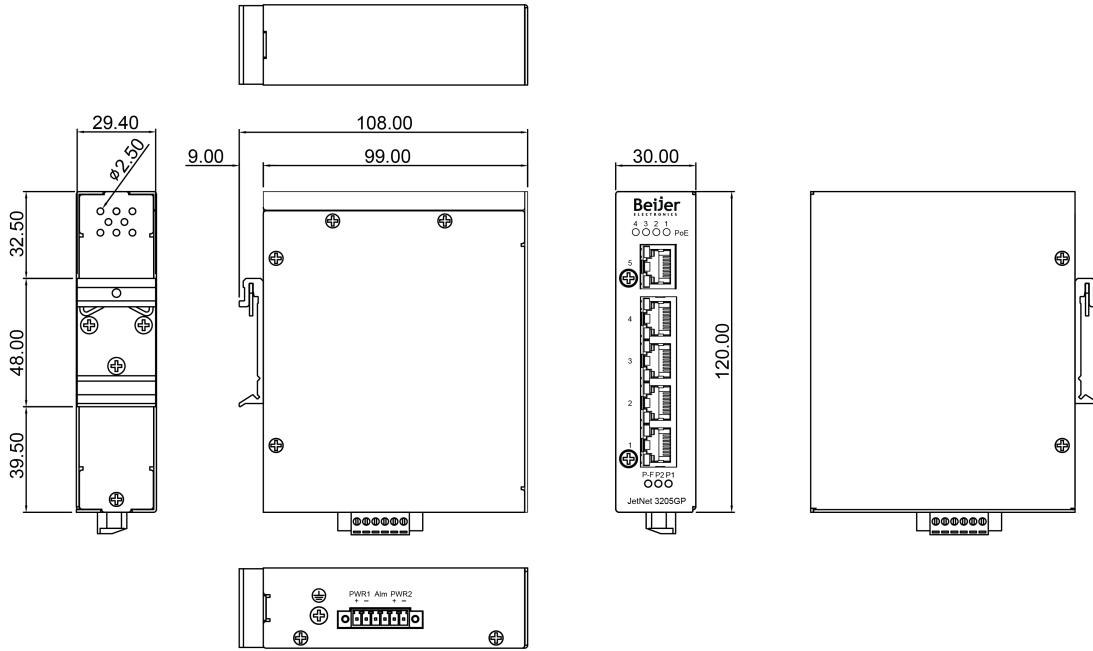
JetNet 3205G/JetNet 3205G-1F Series

- Five 10/100/1000Base-T RJ-45 (JetNet 3205G only)
- Four 10/100/1000Base-T RJ-45 and one 1000 SFP socket (JetNet 3025G-1F only)
- IEEE802.3, 802.3u, and 802.3ab Compliance
- Flexible Gigabit Fiber Link Distance
- Power Redundancy with Wide Range Input
- Industrial Slim Size Design
- 9K bytes Jumbo Frame for Large File Transmission
- Rigid IP-30 Grade Metal Case
- -40~75 °C Hazardous Operating Temperature

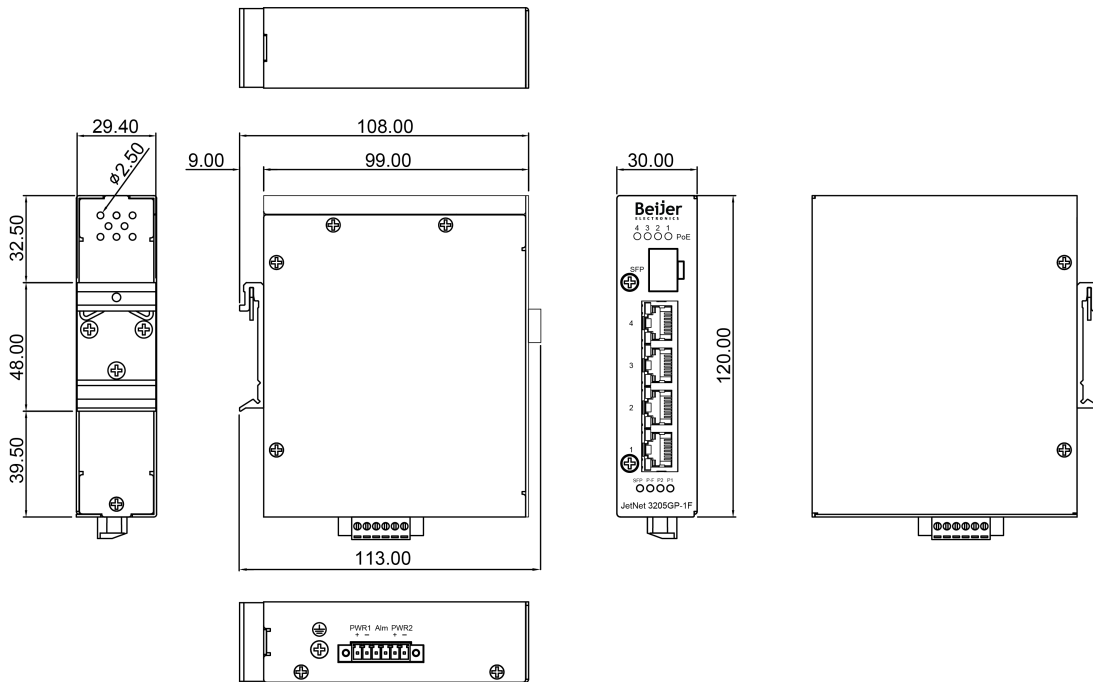
JetNet 3205GP/JetNet 3205GP-1F Series

- Four 10/100/1000Base-TX PoE ports and one 1000Base TX port (JetNet 3205GP only)
- Four 10/100/1000Base-TX PoE ports and one 1000Base FX port (JetNet 3205GP-1F only)
- IEEE802.3, 802.3u, and 802.3ab Compliance
- Four PoE Ports Compliance with IEEE802.3af/at.
- Industrial Slim Size Design
- 9K bytes Jumbo Frame for Large File transmission
- Power redundancy with Wide Range Input
- Rigid IP-30 Grade Metal Case
- -40~75 °C Hazardous Operating Temperature

JetNet 3205GP



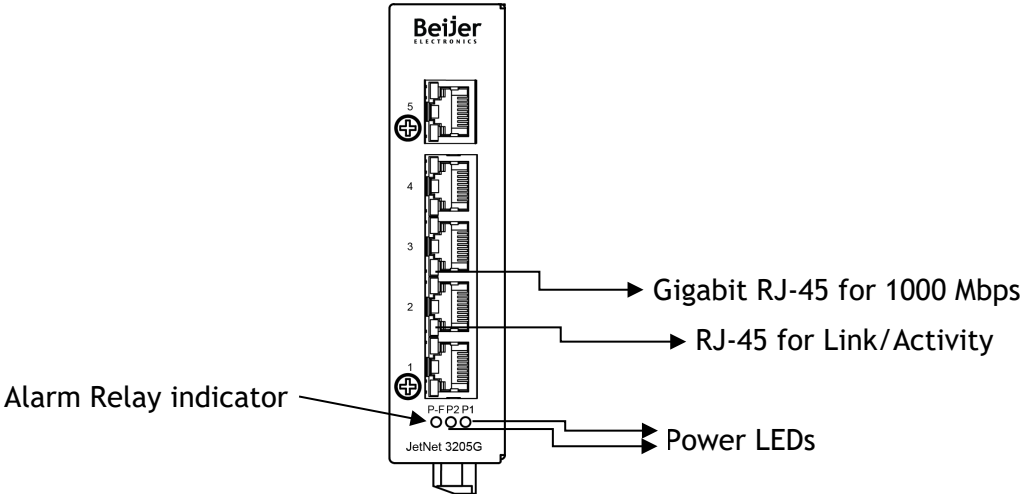
JetNet 3205GP-1F



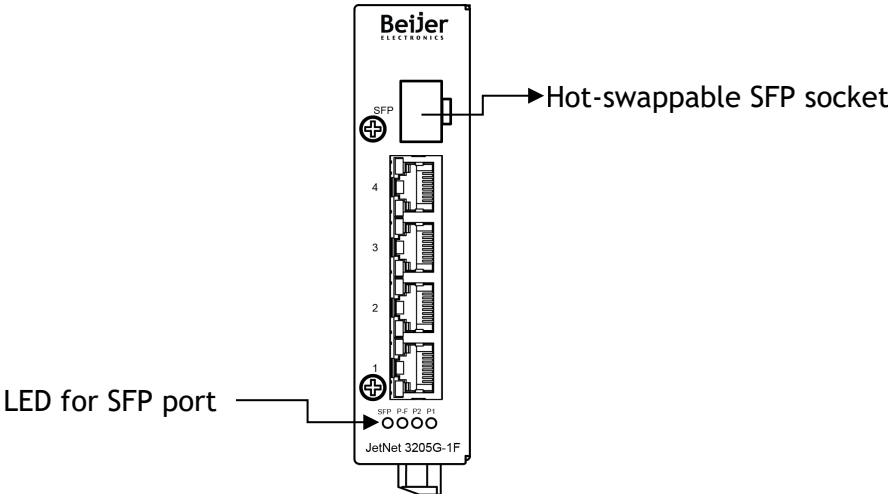
2.2. Front Panel

The Front Panel of the JetNet series is shown below.

JetNet 3205G

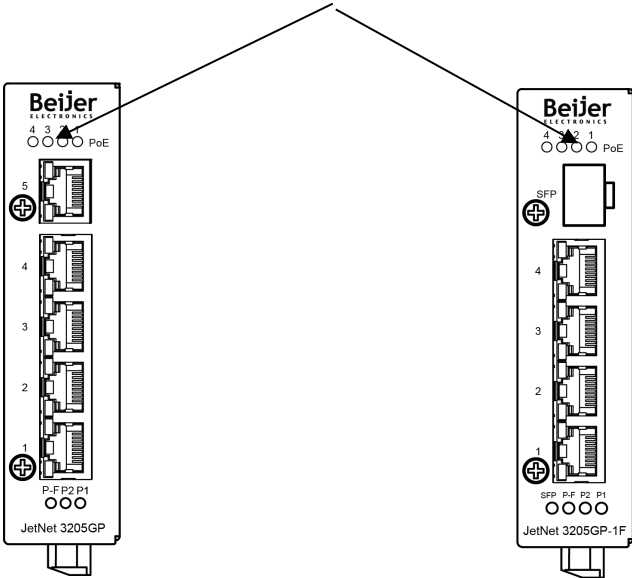


JetNet 3205G-1F



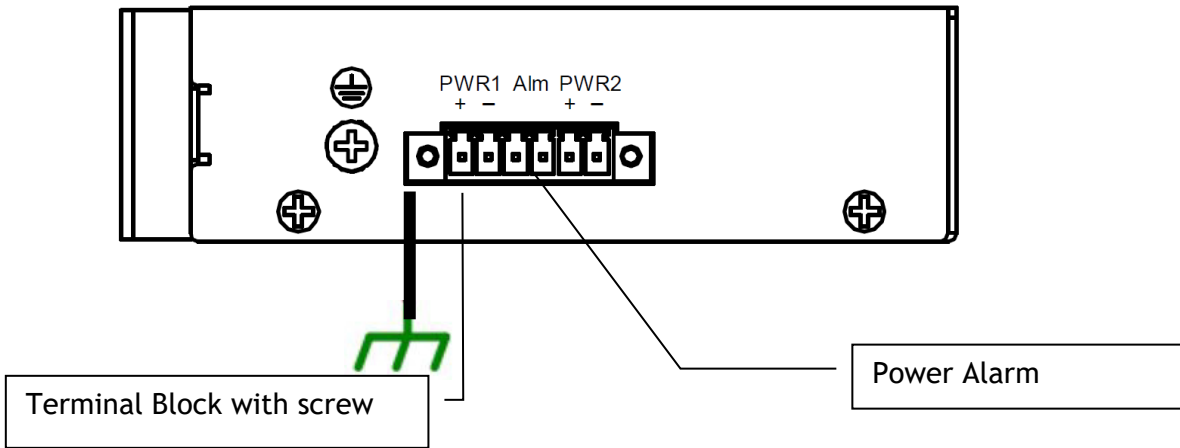
JetNet 3205GP/JetNet 3205GP-1F

LEDs for PoE ports



2.3. Bottom View

The bottom side of the JetNet 3205G series includes one 6-pin removable terminal block connector.



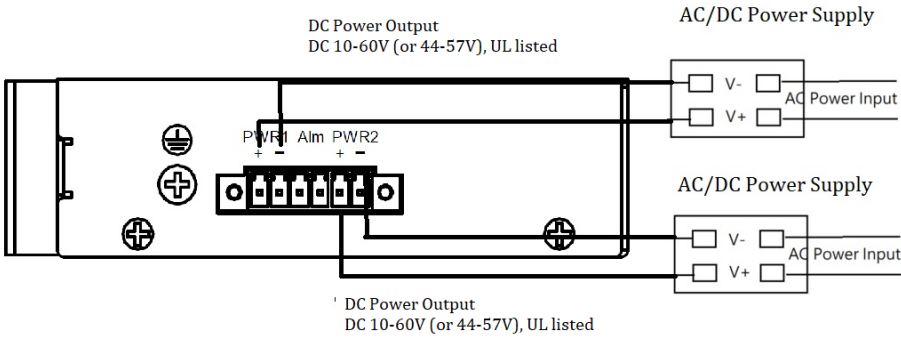
The power range of the JetNet 3205G/JetNet 3205G-1F is from DC 10~60V with redundancy and polarity reverse function.

The power range of the JetNet 3205GP/JetNet 3205GP-1F is from DC 44~57V (>50V for IEEE 802.3 at mode) with redundancy and polarity reverse function.

2.4. Wiring the DC Power Inputs

Follow the steps below to wire the JetNet 3205G series redundant DC power inputs.

[Note] The suitable electric wire ranges from 12 to 23 AWG.

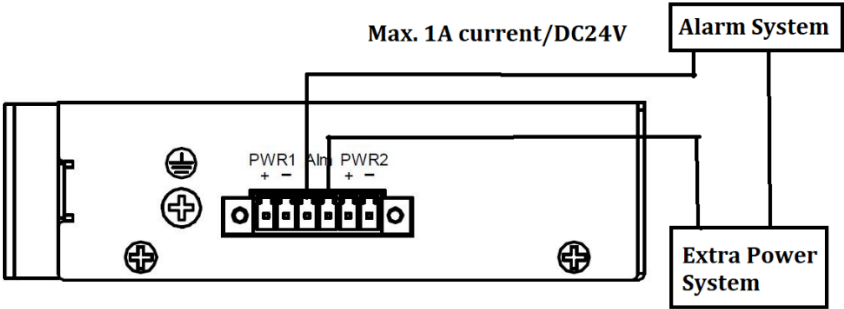


[Note] The 44-57V is the power required under PoE power supply.

1. Insert the positive and negative wires into the V+ and V- contacts respectively of the terminal block connector
2. Tighten the wire-clamp screws to prevent the DC wires from being loosened.
3. The Power 1 and Power 2 support power redundancy and polarity reverse protection functions.

2.5. Connect the Dry Relay Output

The JetNet 3205G series provides one dry relay output for one DC power failure. The relay conductor ability is 24W when it connects with a DC 24V power source and maximum current is 1A. In the following diagram shows how to make an alarm circuit.



2.6. LED Indicators

The following table gives descriptions of the function for each LED indicator.

LED	Status	Description
P1	Green On	DC-IN Power
	Off	No power in DC-IN
P2	Green On	DC-IN Power.
	Off	No power in DC-IN.
P-F	Red on	Power1 or (and) Power 2 Disconnect.
	Off	Power Connection
SFP (JetNet 3205G-1F, JetNet 3205GP-1F only)	Green on	Link
	Blinking	Activity with speed 1000Mbps
RJ-45 port	Green On	Link
	Bilking	Activity
	Amber On	Link with Speed 1000Mbps
	Amber Off	Link with Speed 10/100Mbps

PoE 1, 2, 3, 4 (JetNet 3205GP, JetNet 3205GP-1F only)	Green on	The port is delivering PoE power
	Green Off	No PD attached

Chapter 3. Mounting Installation

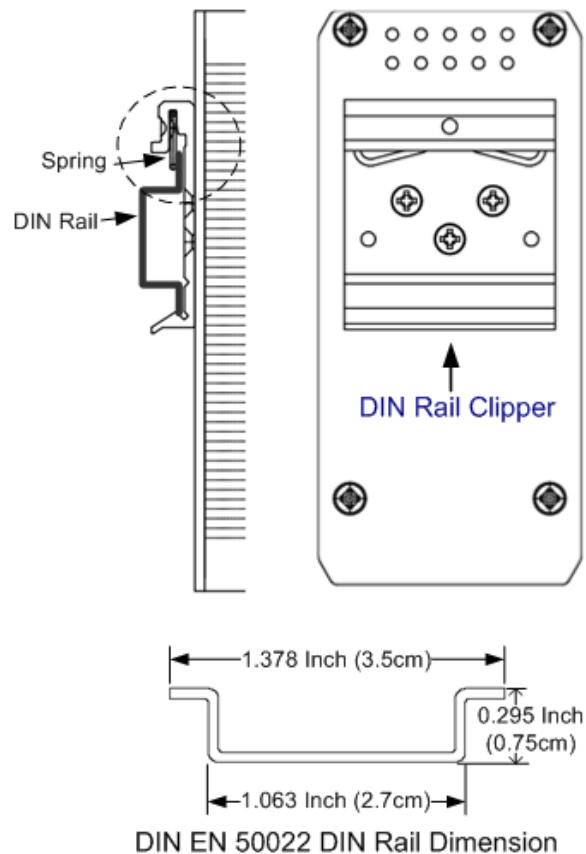
3.1. DIN-rail Mounting

The DIN-rail clip is already attached on the rear side of the JetNet 3205G series. The JetNet 3205G series supports EN 50022 standard DIN rail, The following diagram includes the dimension of EN 50022 DIN rail for your reference.

The DIN rail should be placed behind the spring when installed the JetNet 3205G series onto the standard DIN rail.

Follow the steps below to mount the JetNet 3205G series to the DIN rail track.

1. Insert the upper end of the DIN-Rail clip into the back of the DIN-Rail track from its upper side
2. Lightly push the bottom of the DIN-Rail clip into the track.
3. Check if the DIN-Rail clip is tightly attached to the track.
4. To remove the JetNet 3205G series from the track, reverse the steps above.



Chapter 4. Troubleshooting

- Make sure you are using the correct DC power supplier (DC10-60V for JetNet 3205G/3205G-1F, DC44-57V for JetNet 3205GP/JetNet 3205GP-1F. >50V for PoE at mode)
- Select Ethernet cables with specifications suitable for your applications to set up your systems. Ethernet cables are categorized into unshielded twisted-pair (UTP) and shielded twisted-pair (STP) cables. Category 3, 4, 5 Ethernet cables are suitable for systems with 10 Mbps transmission speed. For systems with 100/1000 Mbps transmission speed, Category 5 Ethernet cables are the only suitable specifications for this environment. Also make sure that the distance between each node cannot be longer than 100 meters (328 feet).
- If the power LEDs go off as the power cord plugged in, a power failure might occur. Check the power output connection to see if there is any error at the power source. If you still cannot solve the problem, contact your local dealer for assistance.

Chapter 5. Technical Specifications

Technology

Standard	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z Gigabit Ethernet Fiber (JetNet 3205G-1F/JetNet 3205GP-1F) IEEE802.3x flow control and back-pressure
-----------------	--

Performance

Forwarding Technology	Store and Forward technology
Packet buffer	1 Mbits
Alarm contact	1 relay output with current carrying capacity of 1A@24VDC

Interface

Number of Ports	5 (or 4) x 10/100/1000 Base-TX with Auto MDI/MDI-X function, Auto-Negotiation 1 (or 0) x SFP socket with hot-swappable function for Gigabit Ethernet SFP Transceiver.
------------------------	--

Connectors	10/100/1000 Base-TX: RJ-45 SFP socket: support 3.3V Gigabit 1.25 Gbps fiber transceiver and 155Mbps fiber transceiver Terminal block: 4-Pin for redundant power input; 2-Pin for alarm relay output
-------------------	---

Cables	RJ-45 Connector: 4 pairs of Cat-5e, Cat-6 UTP/STP cable for 1000Base-T Maximum link distance is 100 meters.
---------------	--

Diagnostic LED	System: Power (Green) x2 , Alarm (Red) x1 RJ-45 port: - Link/Activity (Green): On (Link), Blinking (Activity) Speed (Amber): On (Speed 1000M), Off (Speed 10/100M) PoE port: JetNet 3205GP/JetNet 3205GP-1F - Delivering Power (Green) SFP port: JetNet 3205G-1F/JetNet 3205GP-1F - Link/Activity (Green): On (Link), Blinking (Activity)
-----------------------	--

Power Requirements

System Power	DC 10-60V for JetNet 3205G/JetNet 3205G-1F with polarity reverse correction and over current protection. DC 44-57V (>50V for PoE at mode) for JetNet 3205GP/JetNet 3205GP-1F with polarity reverse correction and over current protection.
---------------------	---

Power Consumption	Max.3Watts for JetNet 3205G/JetNet 3205GP Max.3.6Watts for JetNet 3205GP/JetNet 3205GP-1F
--------------------------	--

Mechanical

Installation	DIN-Rail mount
Case	Metal case with grade 30 of ingress protection.
Dimension	120mm (H) x 30mm (W) x 108 mm (D) (with DIN rail clip)
Weight	900g with package 600g without package

Environmental

Operating Temperature	-40°C ~75°C
Operating Humidity	0% ~ 95% non-condensing
Storage Temperature	-40°C ~ 80 °C
Storage Humidity	0%- 95% non-condensing

Regulatory Approvals

EMI	FCC Class A, CE/EN55032
EMS	EN61000-4-2,EN61000-4-3,EN61000-4-4,EN61000-4-5,EN61000-4-6, EN61000-4-8, EN61000-4-11, EN55024, EN50121-4
Shock	IEC 60068-2-27 (compliance)
Vibration	IEC 60068-2-6 (compliance)
Free Fall	IEC 60068-2-32 (compliance)
MTBF	380,000 hours
