FIBERROAD®

Unmanaged Ethernet Switches

FR-7N3208P-24V

Industrial Unmanaged 8-port 10/100/1000Base-TX (PoE+) + 2-port 1000Base-SFP Ethernet Switch with Redundant 24VDC Power Inputs

Product Data Sheet

FR-7N3208P-24V

Main Features

- 8 x 10/100/1000Base-T RJ45 Ports
- 2 x 1000BASE-X SFP Slot
- Optionally support IEEE 802.3 af/at Power Over Ethernet Standard
- Supports IEEE 802.3x flow control for Full Duplex mode and backpressure for Half Duplex mode
- Non-blocking switching architecture that forwards and filters packets at full wire-speed for maximum throughput
- Auto-MDI/MDIX eliminates the need for crossover cables
- Supports MAC address auto-learning and auto-aging
- Auto-negotiation ports provide smart integration between 10Mbps, 100Mbps and 1000Mbps hardware.
- IEEE 802.1Q VLAN Transparency
- Plug and Play design simplifies installation.

Industrial Case and Installation

- IP40 Aluminium case, Fanless design
- 24VDC redundant power with reverse polarity protection
- DIN-rail and wall mount installation
- -40 to +75℃ operating temperature

Overview

The Fiberroad 7N Series Unmanaged Industrial Ethernet Switch is designed for reliable operation in outdoor surveillance and industrial networking environments. Developed to withstand harsh weather conditions, it provides stable Ethernet connectivity for CCTV systems and industrial devices deployed in demanding field installations.

The FR-7N3208P-24V supports IEEE 802.3af/at Power over Ethernet (PoE), enabling simultaneous power and data transmission over a single cable. This simplifies installation and reduces cabling requirements, particularly in outdoor and remote applications.

With multiple port configurations available, the switch allows straightforward integration into existing network infrastructures. Its industrial-grade design ensures dependable performance while supporting cost-effective network deployment for surveillance and industrial applications.

| Hardware Specifications	
Product	FR-7N3208P-24V
Copper Ports	8x10/100/1000BASE-T RJ45 Auto-MDI/MDI-X (Port 1-8)
Fiber Ports	2x1000BASE-X SFP Slot (Port 9 -10)
Enclosure	IP40 aluminum case
Installation	DIN-Rail and Wall-mount
Dimension	138 x 108 x 49mm
Weight	620g(Bare weight), 720g(With package)
Surge Protection	±6kV DC, ±6kV RJ45
Switching	
Switch Architecture	Store-and-Forward
Switch Fabric	20Gbps/non-blocking
Forwarding Rate	11.9 Mpps(64-byte packet size)
Packet Buffer Size	2Mbits
MAX. Packet Length	1500 bytes
MAC Address Table	4K entries, automatic source address learning and aging
Flow Control	IEEE 802.3x pause frame for full duplex, Back pressure for half duplex
Power Supply and PoE	
Power Input	2
Power Connector	1 removable 6-contact terminal blocks Pin 1/2 for Power 1, Pin 3/4 for Power 2, Pin 5/6 for fault alarm(As required)
Operating Voltage	DC24V
Power Consumption	7 Watts Max (without PoE load)
Protection	Reverse Polarity, Overload Current
PoE Ports	Port 1 to 8 IEEE802.3 af/at
PoE Power Supply Type	End-span
Power Supply Pin	1/2(+), 3/6(-)
Max Power Per Port	30W
PoE Power Budget	240W (Depending on power input)
Environmental	
Operating Temperature	-40℃ to +75℃ (-40 to 167 ℉)
Storage Temperature	-40℃ to +85℃ (-40 to 185 ℉)
Operating Humidity	5%~95% (non-condensing)
Heat Dissipation	17 BTU/h (Non-PoE), 700 BTU/h (with 240W PoE load)
Cooling	Passive Cooling
MTBF	＞500,000 hours @MIL-HDBK-217F GF 25℃
LED Indicators	
P1 & P2	ON: Power is being supplied ,OFF: Power is not being supplied
RJ45 Port Amber LEDs	ON: Port connection is active, Blinking: Data transmitted, OFF: Port connection is not active
RJ45 Port Green LEDs	ON: Port is operating at 1000 Mb/s, OFF: Port is operating at 10/100 Mb/s

Regulatory & Warranty

Standard Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet
ISO	Manufactured in ISO-9001 facility
Safety	IEC62368-1:2020+A11:2020
EMI	FCC Part 15B Class A, IEC 61000-3-2
EMS	IEC61000-4-2 ESD: Contact:±8kV, Air:±15kV IEC61000-4-5 Surge: Power: ±6kV; RJ45:±4kV/±6kV(PoE)
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	RoHS 2011/65/EU Annex II(EU)
Warranty	5 Years, Details See: https://fiberroad.com/warranty

Package Contents

Device	1 x Industrial Ethernet Switch
Installation Kit	1 x DIN-Rail Clip
Documentation	1 x Quick installation guide 1 x Warranty card

Dimensions   Unit: mm
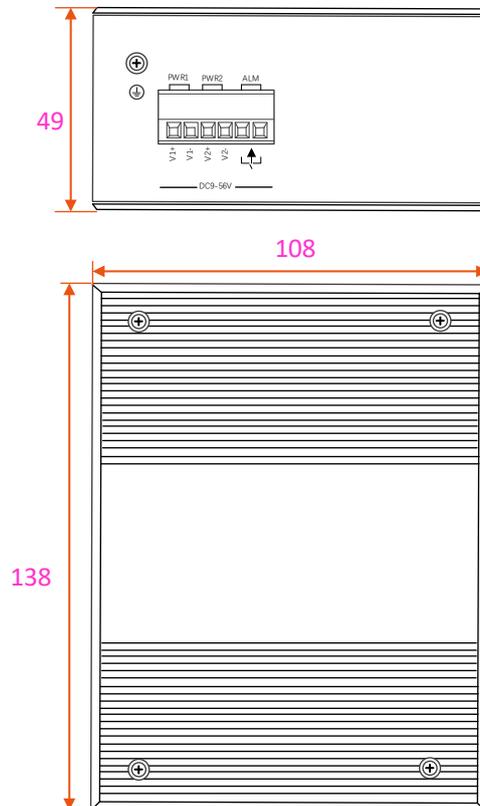
Ordering Information

Available Model	Description	Input Voltage	Operating Temp.
FR-7N3208P-24V	Industrial Unmanaged 8-port 10/100/1000Base-TX (PoE+) + 2-port 1000Base-SFP Ethernet Switch with Redundant 24VDC Power Inputs	Dual DC24V	-40 to +75℃

Optional Accessories (to be purchased separately)

Power Supply	
FR-I-60-24	DIN-rail 24 VDC power supply with 60W/0.6A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

SFP Optical Transceiver	
(S)=SFP Option	Please select your SFP on our SFP Modules page for details.

Armored Fiber Patch Cable / LAN Cable	
FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Outdoor Application , 1-50m
FRLC-A-CAT6	Armored Cat6 Snagless shielded(SFTP) Ethernet Network Patch Cable, 26AWG, 1000Base-T, 0.5m – 3m

Shipping

Model No.	FR-7N3208P
Classification Codes	HS Code: 851762
	HTS: 8517.62.00
NDAA Compliant	Yes
Individual Gross Weight	800g
Individual Package Dimension	201x171x73mm
Package Quantity	20 Units
Package Gross Weight	17.6kg
Package Dimension	422x385x375mm

Precautions

To prevent equipment damage or personal injury caused by improper operation, please observe the following precautions:

- Turn off the power before installation. Wear an anti-static wrist strap and ensure proper skin contact to prevent electrostatic discharge (ESD) damage.
- Ensure the power supply voltage matches the voltage specified on the switch.
- Before powering on the switch, verify that the power circuit is not overloaded to avoid abnormal operation or equipment damage.
- Do not open the chassis while the switch is operating. To avoid the risk of electric shock, do not disassemble the device.
- Disconnect the power before cleaning. Do not use a wet cloth or liquid cleaners.
- When installing in a rack, mount equipment from bottom to top to prevent overloading.
- Do not place heavy objects on the switch.