

FIBERROAD

UNMANAGED INDUSTRIAL ETHERNET SWITCH

Product Data Sheet



Unmanaged Industrial Ethernet Switch

Fiberroad Low Voltage PoE Switches are a game-changer in the world of networking technology. With the ability to deliver both power and data over Ethernet cables, these switches eliminate the hassle of dealing with separate power sources for devices such as IP cameras, VoIP phones, and wireless access points. This not only streamlines the networking infrastructure but also reduces clutter and complexity in installation projects. The 12-36VDC capability of Fiberroad Low Voltage PoE Switches ensures reliable performance while maintaining energy efficiency. By harnessing the power of existing Ethernet cabling, these switches pave the way for cost-effective and efficient network setups that can adapt to various technological demands. Whether it's in a commercial setting or a residential environment, Fiberroad Low Voltage PoE Switches offer a versatile solution for enhancing connectivity and productivity across different applications.

Main Features

- ❖ Support up to 8 ports 10/100/1000Base-T RJ45
- ❖ Full/Half-duplex self-adaptation
- ❖ MDI/MDIX automatic recognition
- ❖ Optionally support IEEE 802.3af/at/bt PoE Standard, without damaging not-PoE devices.
- ❖ Jumbo Frame up to 9K, 20G switching capacity
- ❖ Operating temperature -40 to 75°C
- ❖ Wide-range DC9~56V power input
- ❖ Support power input polarity protection; no worries about the reverse connection
- ❖ All-Aluminium shell, fanless design
- ❖ Free fall, shock-proof and vibration-proof for industries
- ❖ Plug and play; no software configuration.



Operation Temp



Surge



IP40 RATED



It offers and realizes Ethernet data exchange with efficient bandwidth for users. The industrial switch complies with various characteristics such as no fan, low power consumption, high reliability and stability, and ease of maintenance.

Industrial Ethernet Switch adopts mature technology and open network standards, adapt to low temperature and high temperature, strong anti-electromagnetic interference, anti-salt fog, anti-vibration and anti-shake, equipped with a redundant dual power supply, which can offer redundant mechanisms for critical applications that need always-on connections. It can also operate either at the standard operating temperature range of -40 to 75°C.

Product Specifications

Ethernet Interface		
	FR-7N3008-24V	FR-7N3208P-24V
Ports	8x10/100/1000Base-TX Port(RJ45)	8x10/100/1000Base-TX Port(RJ45) 2x100/1000Base-X SFP Slot
Port Mode(Tx)	Auto Negotiation Full/Half Duplex Mode Auto MDI/MDI-X Connection	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for Fast Ethernet IEEE 802.3ab Gigabit Ethernet	
Packet Buffer Size	2M	
Maximum Packet Length	9K	
MAC Address Table	4K	
Transmission Mode	Store and Forward (full/half duplex mode)	
Exchange Property	Delay time: < 7μs Backplane bandwidth: 20G	

Physical Characteristics	
Housing	Aluminum case
IP Rating	IP40
Dimensions	138mm x 108mm x 49mm (L x W x H)
Installation	DIN Rail/Wall Mount
Weight	680g
Environmental	
Operating Temperature	-40°C~75°C (-40 to 167 °F)
Operating Humidity	5%~95% (non-condensing)
Storage Temperature	-40°C~85°C (-40 to 185 °F)
MTBF	500,000 hours @ Telcordia SR-332 Standard
Heat Dissipation	34 BTU/h (non-PoE mode) 853 BTU/h (with 240W PoE load)
Cooling	Passive Cooling, Fanless Design
Noise Level	0 dBA

LED	State	Description
PWR (P1&P2)	ON	Power is being supplied
	OFF	Power is not being Supplied.
Link/ACT (1-8)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active.

PoE & Power Supply

Model	FR-7N3008P-24V / FR-7N3208P-24V
PoE Ports	Port 1 to 8 IEEE802.3af/at @PoE+
Power Supply Pin	Default: 1/2(+), 3/6(-)
Max Power Per Port	30W
Total PWR /Input Voltage	90W(12VDC) 120W(24VDC) 240W(48VDC)
Power Consumption	10 Watts Max(without PoE load)
Power Inputs	2
Input Voltage	12/24/48VDC,Redundant dual inputs
Operating Voltage	Non-PoE Mode: 9-56VDC 30W PoE Mode: 12/24/48VDC
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
Protection	Overload Current Protection, Reverse Polarity Protection

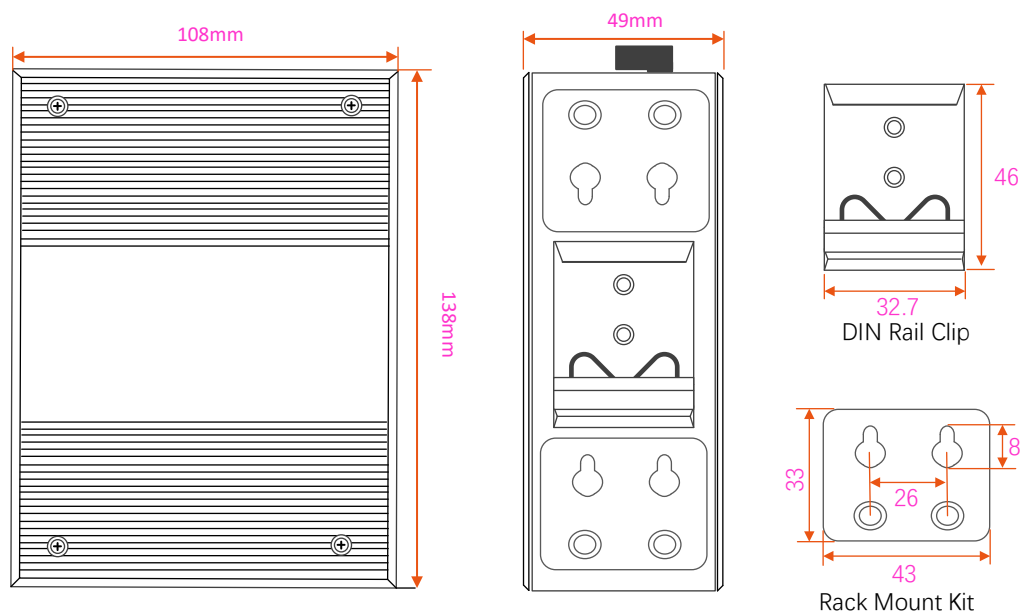
Certification Standard

EMC/EMI/EMS	FCC Part15 Class A CE-EMC/LVD RoHS EN61000-4-2 (ESD):LEVEL 4 IEC 6100-4-2 (EFT):LEVEL 4 IEC 6100-4-2 (Surge): LEVEL 4 IEC 6100-4-2 (CS): LEVEL 3 IEC 61000-4-2(PFMP) : LEVEL 5 EN61000-4-3 (RS):LEVEL 4
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Freefall	IEC60068-2-31
Safety	EN 60950-1, UL 60950-1, CSA C22.2 No.60950-1, UL 508

Package Contents

Device	1x Industrial Ethernet Switch
Installation Kit	1x DIN-Rail Clip 2x Wall-Mount Kits
Documentation	1 x Quick installation guide 1 x Warranty card 1x Product notice

Dimensions Unit: mm



Accessories(Sold 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
FR-I-120-48	DIN-rail 48-58V VDC power supply with 120W/1.2A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-240W-48	DIN-rail 48-55V VDC power supply with 240W/2A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-480W-48	DIN-rail 48-55V VDC power supply with 480W/4A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

SFP Optical Transceiver	
FRSX-1L311C-I	1.25Gb/s 1310nm 10km SFP, wide operation temperature range of -40°C-85°C (-40°F - 185°F)
FRSX-1L341C-I	1.25Gb/s 1310nm 40km SFP · wide operation temperature range of -40°C-85°C (-40°F - 185°F)
FRSX-1L5X1C-I	1.25Gb/s 1550nm 80/100km SFP · wide operation temperature range of -40°C-85°C (-40°F - 185°F)
FRSX-1L3523/5323C-I	1.25Gb/s 1310nm/1550nm 20km BiDi SFP · wide operation temperature range of -40°C-85°C (-40°F - 185°F)

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

Precautions

To avoid damage to the equipment and personal injury caused by improper use, please observe the following precautions:

- ❖ Keep the power off during installation, wear an anti-static wrist, and ensure that the anti-static wrist is in good contact with the skin to avoid potential safety hazards.
- ❖ The switch can work normally under the correct power supply. Please confirm that the power supply voltage matches the voltage indicated by the switch.
- ❖ Before powering on the switch, please make sure that the power circuit is not overloaded, so as not to affect the normal operation of the switch and even cause unnecessary damage.
- ❖ To avoid the risk of electric shock, do not open the case while the switch is working, even if it is not charged, do not open it yourself.
- ❖ Before cleaning the switch, pull out the power plug of the switch. Do not wipe with a wet cloth. Do not use liquid to clean it.
- ❖ The equipment installed in the rack is generally from bottom to top to avoid overload installation.
- ❖ Avoid placing other heavy objects on the surface of the switch to avoid accidents.

Order Information

Model Number	10/100/Base-T(X), RJ45	10/100/1000Base-T(X), RJ45	100/1000Base-X SFP Slot	PoE Standard	Input Voltage	Operating Temp.
FR-7N1008	8	—	—	—	DC9-56V	-40 to +75°C
FR-7N1008P	8	—	—	IEEE802.3af/at	DC9-56V	-40 to +75°C
FR-7N1008P-24V	8	—	—	IEEE802.3af/at	DC12/24V	-40 to +75°C
FR-7N1008BT	8	—	—	IEEE802.3af/at/bt	DC9-56V	-40 to +75°C
FR-7N3008	—	8	—	—	DC9-56V	-40 to +75°C
FR-7N3008P	—	8	—	IEEE802.3af/at	DC9-56V	-40 to +75°C
FR-7N3008P-24V	—	8	—	IEEE802.3af/at	DC12/24V	-40 to +75°C
FR-7N3008BT	—	8	—	IEEE802.3af/at/bt	DC9-56V	-40 to +75°C
FR-7N3208P	—	8	2	IEEE802.3af/at	DC9-56V	-40 to +75°C
FR-7N3208P-24V	—	8	2	IEEE802.3af/at	DC12/24V	-40 to +75°C

The information in this document is subject to change without notice. Fiberroad has made all effects to ensure the accuracy of the information, but all information in this document does not constitute any kind of warranty. Visit our website for the most up-to-date product information

For more information

For more information about Fiberroad Smart Industrial Ethernet series products, Visit <https://www.fiberroad.com> or contact your local account representative.