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UNMANAGED INDUSTRIAL ETHERNET SWITCH

Product Data Sheet

Unmanaged Industrial Ethernet Switch

The Unmanaged Industrial Ethernet Switch is designed for small and medium industrial network applications. It provides an easy way to access Gigabit Ethernet. This switch's robust design makes it ideal for deployment in industrial and outdoor surveillance settings. It can optionally support DIN-Rail mounting or Wall mounting. LEDs provide visual monitoring of Ethernet-connected devices via twisted-pair RJ45 ports.

Main Features

- Support up to 8 ports x 10/100Base-T or 10/100/1000Base-T
- 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 backplane bandwidth
- Operating temperature -40 to 75℃
- 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.

This industrial switch offers efficient Ethernet data exchange with various features such as no fan, low power consumption, high reliability and stability, and ease of maintenance. Moreover, It uses mature technology and open network standards and can operate in low and high temperatures. It is equipped with a redundant dual power supply, making it ideal for critical applications that need always-on connections.

Ethernet Interface		
Model	FR-7N3208	FR-7N3208P/3208BT
Ports	8x10/100/1000Base-TX Port(RJ45) 2x1000Base-X(SFP/1x9)	
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 IEEE 802.3x for flow control and back pressure IEEE802.3az for Energy Efficient Ethernet(EEE)	
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	

PoE & Power Supply		
Model	FR-7N3208P	FR-7N3208BT
PoE Ports	Port 1 to 8 IEEE802.3af/at @PoE+	Port 1 to 8 IEEE802.3af/at/bt @PoE++
Power Supply Pin	Default: 1/2(+), 3/6(-)	Default: 1/2(+), 3/6(-) or 4/5(+), 7/8(-)
Max Power Per Port	30W	90W
Total PWR /Input Voltage	240W(DC48-56V) (Model dependent)	480W(DC52-56V) (Model dependent)
Power Consumption	10 Watts Max(without PoE load)	
Power Inputs	2	
Input Voltage	9-56VDC,Redundant dual inputs	
Operating Voltage	Non-PoE Mode: 9-56VDC 30W PoE Mode: 48-56VDC 90W PoE Mode: 52-56VDC(IEEE802.3bt model)	
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	

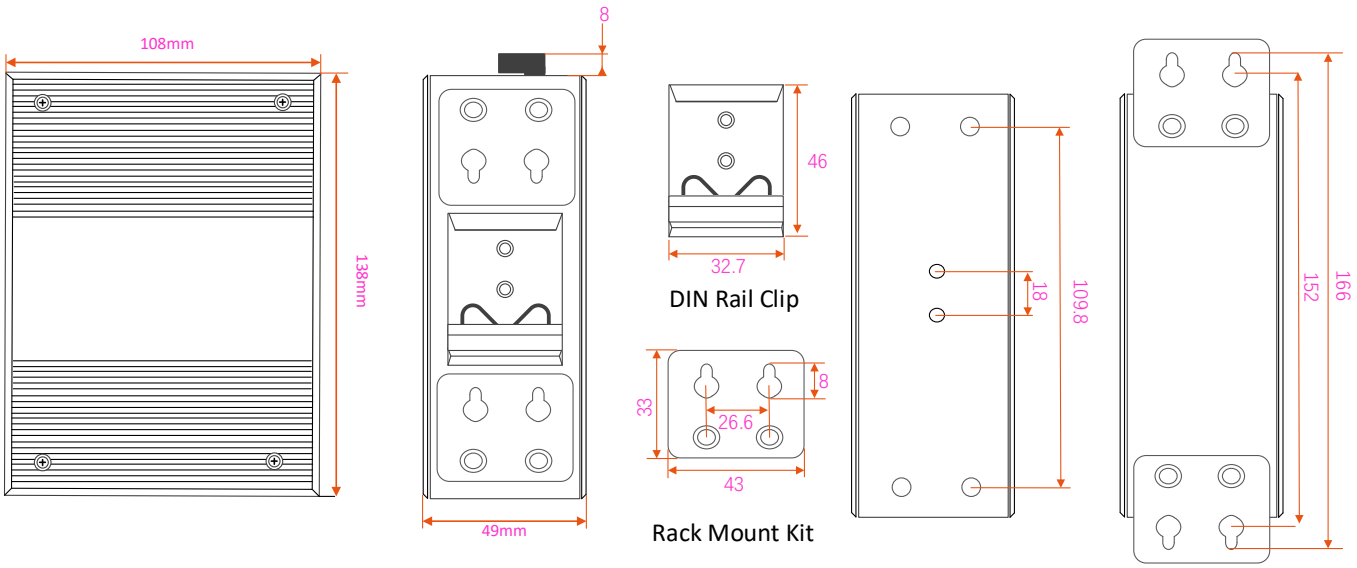
LED	State	Description
PWR (P1&P2)	ON	Power is being supplied
	OFF	Power is not being Supplied.
Link/ACT (1-10)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active.

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℃~75℃ (-40 to 167 ℉)
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-40℃~85℃ (-40 to 185 ℉)
MTBF	907,476 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

Regulatory & Warranty	
Safety	IEC/EN 62368-1
EMI	EN55032 Class A, CISPR 32 FCC Part 15B Class A
EMS	EN61000-4-2 (ESD) EN61000-4-3 (RS) EN61000-4-4 (EFT) EN61000-4-5 (Surge) EN61000-4-6 (CS) EN61000-4-8 (PFMF
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	RoHS
Warranty	5 Years, Details See: www.fiberroad.com

Package Contents	
Device	1x Industrial Ethernet Switch
Cable	1xDB9 female to RJ45
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℃-85℃ (-40℉ - 185℉)
FRSX-1L341C-I	1.25Gb/s 1310nm 40km SFP，wide operation temperature range of -40℃-85℃ (-40℉ - 185℉)
FRSX-1L5X1C-I	1.25Gb/s 1550nm 80/100km SFP，wide operation temperature range of -40℃-85℃ (-40℉ - 185℉)
FRSX-1L3523/5323C-I	1.25Gb/s 1310nm/1550nm 20km BiDi SFP，wide operation temperature range of -40℃-85℃ (-40℉ - 185℉)

Armored Fiber Patch Cable / LAN Cable	
FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Ourdoor 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	10/100/1000Base-T(X), RJ45	1000Base-FX Port	Optical Port Connector Option	PoE Standard	Input Voltage	Operating Temp.
FR-7N3208	8	2	LC/SC/ST/FC	—	DC9-56V	-40 to +75℃
FR-7N3208P	8	2	LC/SC/ST/FC	IEEE802.3af/at	DC9-56V	-40 to +75℃
FR-7N3208BT	8	2	LC/SC/ST/FC	IEEE802.3af/at/bt	DC9-56V	-40 to +75℃

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.