FIBERROAD

UNMANAGED INDUSTRIAL ETHERNET SWITCH

Product Data Sheet

FR-6N1005 is a 5x10/100Mbps Ethernet switch, which is designed for small-scale Industrial network application. Provides you with an easy way to make the access point to Fast Ethernet. This switch features a robust design making it ideal for deployment in industrial and outdoor surveillance settings, capable of withstanding the harshest environments. In addition, the switch is Plug-and-Play, allowing for effortless and swift deployment. FR-6N1005 can optionally support DIN-Rail mounting or Wall mounting, thus suitable for various installation methods. LEDs provide visual monitoring of Ethernet-connected devices such as IP cameras, wireless access points, or PC/laptop via 10/100Base-T twisted-pair RJ45 ports on FR-6N1005.

Main Features

- Support up to 5 ports x 10/100Base-T
- Full/Half-duplex self-adaptation
- MDI/MDIX automatic recognition
  Operating temperature -20℃ to +70℃
- IP40 Rating, ±4kV Power Supply Surge Protection
- Wide-range DC9-58V/AC15~40V power input
- Support power input polarity protection, no
  worries about the reverse connection
- Aluminium shell, fanless and compact design
- Plug and play, no software configuration needed

The Semi Industrial Ethernet Switch is a vital component in the design of semi-outdoor IoT surveillance applications. With its rugged and durable construction, this switch can withstand harsh environmental conditions such as extreme temperatures, humidity, and dust. Its compact size and fanless design make it ideal for installation in semi-outdoor locations where space is limited and noise levels need to be kept to a minimum. The Semi Industrial Ethernet Switch also offers advanced security features to protect sensitive data transmitted between IoT devices and surveillance cameras. With its high-speed connectivity and reliable performance, this switch ensures seamless communication between devices, enabling efficient monitoring and control of the surveillance system in semi-outdoor environments.

Ethernet Interface

Ports	5x10/100Base-T Ports(RJ45 connector)
Pors Mode(Tx)	Auto Negotiation Speed Full/Half Duplex Mode Auto MDI/MDI-X Connection
Standards	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet
Packet Buffer Size	512Kbits
Maximum Packet Length	9K
MAC Address Table	4K
Transmission Mode	Store and Forward (full/half duplex mode)
Exchange Property	Delay time: < 7μs Backplane bandwidth: 1.25Gbps
Throughput (packet per second)	0.74Mpps @64 bytes

Physical Characteristics

Housing	Aluminium case
IP Rating	IP40
Dimensions	120mm x 90mm x35mm (L x W x H)
Installation Mode	DIN Rail/Wall Mount
Weight	320g

Working Environment

Operating Temperature	-20℃~70℃ (-4 to 158 ℉)
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-40℃~85℃ (-40 to 185 ℉)
Electrostatic Discharge	Contact discharge：±8kV Discharge in air: ±15kV
Surge Protection	Power Supply(Common mode): ±4kV/DM ±2kV RJ45 Port: ±2kV

LED Indicator

Power	Connect-always
RJ45	Link/Act: connect-always; data exchange-twinkle
Fiber	Link/Act: connect-always; data exchange-twinkle

Power Information

Redundant Power Input	DC9-58V/AC15~40V
Connector	5 PIN Phoenix Terminal
Overload Protection	Yes
Power Reverse	Support
Power Consumption	Full Load<3W

Warranty

MTBF	300,000 Hours
Defects Liability Period	5 years warranty, lifetime technical support

Accessories(Sold Separately)

Power Supply

FR-I-40-24	DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-60-24	DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-45-24	45W/2A DIN-Rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature
FR-75-24	75W/3.2A DIN-Rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature

SFP Optical Transceiver

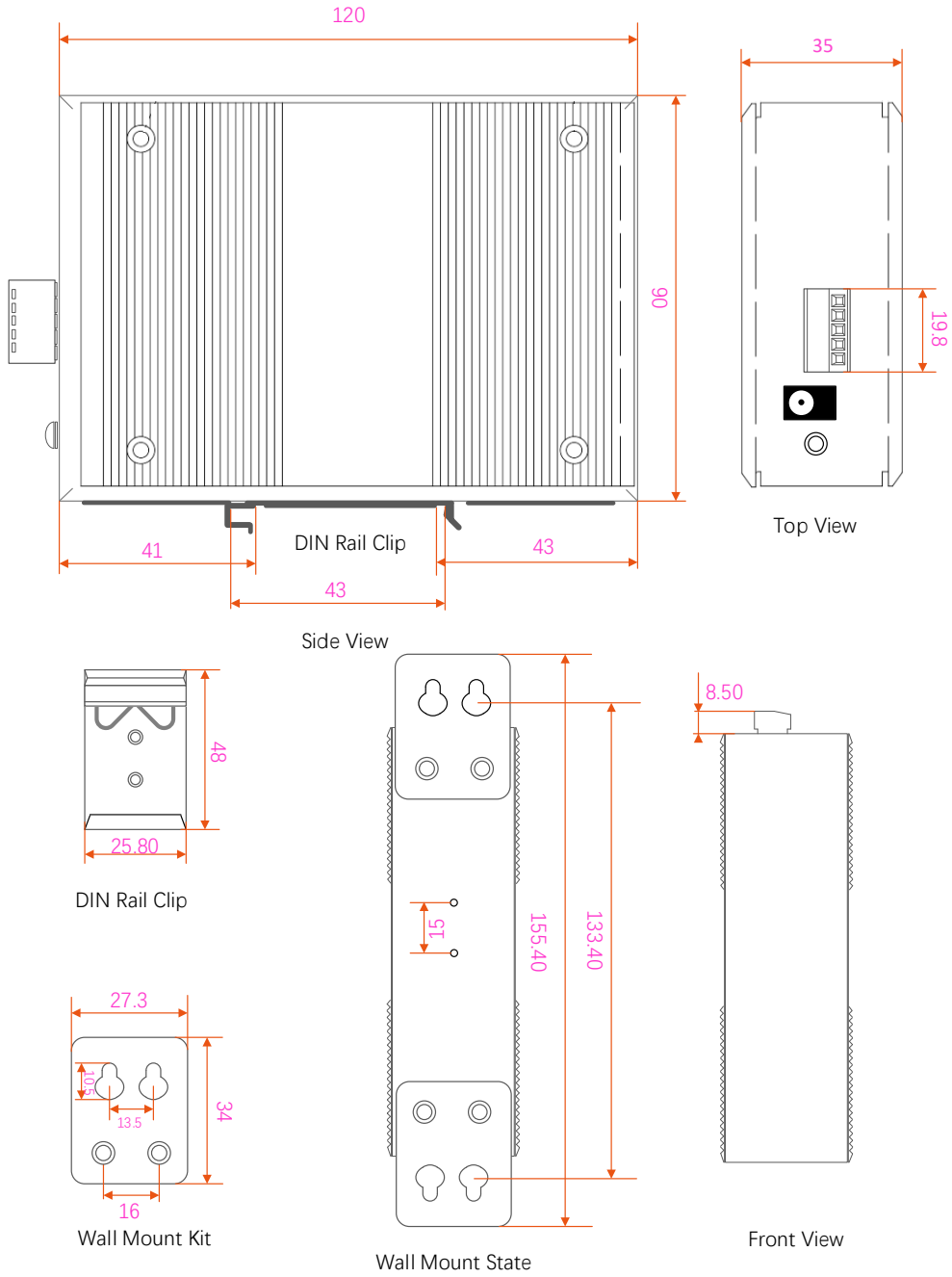| FRSX-1L311C-I	1.25Gb/s 1310nm 10km SFP, wide operation temperature range of -40℃-85℃（-40℉ - 185℉）
FRSX-1L341C-I	1.25Gb/s 1310nm 40km SFP，wide operation temperature range of -40℃-85℃（-40℉ - 185℉）
FRSX-1L5X1C-I	1.25Gb/s 1550nm 80/100km SFP，wide operation temperature range of -40℃-85℃（-40℉ - 185℉）
FRSX-1L3523/5323C-I	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

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

120

90

41

DIN Rail Clip

43

43

Side View

35

19.8

Top View

48

25.80

DIN Rail Clip

27.3

10.5

13.5

34

16

Wall Mount Kit

155.40

133.40

15

Wall Mount State

8.50

Front View

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	10/100Base-T(X), RJ45	10/100/1000Base-T(X), RJ45	100Base-X Port 1000Base-X Port	Optical Port Connector Option	Input Voltage	Operating Temp.
FR-6N1005-IMC	5	—	—	LC	DC9-58V/AC15~40V	-20 to +70℃
FR-6N1008-IMC	8	—	—	LC	DC9-58V/AC15~40V	-20 to +70℃
FR-6N3005-IMC	—	5	—	LC	DC9-58V/AC15~40V	-20 to +70℃
FR-6N3008-IMC	—	8	—	LC	DC9-58V/AC15~40V	-20 to +70℃
FR-6N1104-IMC	4	—	1	LC	DC9-58V/AC15~40V	-20 to +70℃
FR-6N3104-IMC	—	4	1	LC	DC9-58V/AC15~40V	-20 to +70℃

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.