FIBERROAD®

UNMANAGED INDUSTRIAL ETHERNET SWITCH

Designed For Industrial Automation

Product Data Sheet

Fiberroad Auto Pro Series Industrial Ethernet Switch is a cutting-edge device specifically designed for industrial automation. The switch offers top-of-the-line features including one-click broadcast storm protection, which ensures that networks remain safe and stable during high-intensity transmission periods. With 10/100Mbps Ethernet ports, the Fiberroad Auto Pro series can be used to connect multiple devices within an industrial setting. Additionally, its compact design enables it to fit into tight spaces while guaranteeing optimal performance and functionality. This switch is built with robust housing material that makes it suitable for use in harsh environments such as factories or outdoor installations.

Main Features

❖ DIP Switch supports Broadcast Storm Protection
❖ Auto QoS Priority can automatically adjust the priority of packets based on traffic characteristics and network requirements to ensure real-time transmission of critical data.
❖ Auto PROFINET PTCP Filtering blocks PROFINET PTCP-Delay traffic.
❖ Auto Jumbo Frame technology, which allows the switch to intelligently identify and process jumbo frames, enhancing the efficiency and volume of data transmission.
❖ Dual redundant power DC9-72V inputs with industrial surge, spike and reverse power protection.
❖ Auto crossover (MDI/MDIX) automatically supports either straight-through or crossover which greatly reduces cable installation errors.
❖ Support power input polarity protection; no worries about the reverse connection
❖ -40 to +75℃ Operating Temperature

Auto Broadcast Suppression The switch independently learns the addresses of termination devices connected to a port by evaluating the source addresses in the data. Only packets with unknown addresses, with a source address of this port or with a multicast/broadcast address in the destination address field are forwarded via the corresponding port. Up to 2048 MAC addresses can be stored.

Auto PROFINET PTCP Filtering By filtering frames with destination MAC addresses in the range 01-80-C2-00-00-02 through 01-80-C2-00-00-0F, Auto PROFINET PTCP Filtering blocks PROFINET PTCP-Delay traffic. Because PTCP-Delay uses the same MAC address (01-80-C2-00-00-0E), the filter blocks LLDP traffic as well.

Auto QoS Priority When heavy traffic occurs, packets with an 802.1Q priority level of 4 to 7 or with an IPv4 Type of Service Precedence value of one or more are considered high priority and are processed before packets with an 802.1Q priority level of 0 to 3 or an IPv4 Type of Service value of one or more.

Product Specifications

Hardware Specifications

	FICE205	FICE208	FICE216
Ports	5x10/100Base-TX RJ45	8x10/100Base-TX Port(RJ45)	16x10/100-TX Port(RJ45)
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		
Packet Buffer Size	512K	1M	1M
Maximum Packet Length	9K	9K	9K
MAC Address Table	2K	2K	4K
Processing Type	Store and Forward, Auto Negotiation, Half-duplex back-pressure and IEEE 802.3x full-duplex flow control, Auto MDI/MDIX		
Switch Fabric	1G	1.6G	3.2Gbps
Forward and Filtering Rate	14,880pps for 10Mbps,148,810pps for 100Mbps		
Network Cables	10BASE-T: 2-pair UTP Cat. 3, 4, 5, up to 100 meters 100BASE-TX: 2-pair UTP Cat. 5, 5e up to 100 meters		

Physical Characteristics

Housing	Aluminum case	
IP Rating	IP40	
Dimensions	100mm x 78mm x 40mm	138mm x 108mm x 49mm
Installation	DIN Rail/Wall Mount	

Environmental

Operating Temperature	-40℃~75℃ (-40 to 167 ℉)	
Operating Humidity	5%~95% (non-condensing)	
Storage Temperature	-40℃~85℃ (-40 to 185 ℉)	
Surge Protection	±6kV DC, ±4kV RJ45	
MTBF	＞500,000 hours @ Telcordia SR-332 Standard	
Heat Dissipation	10 BTU/h	34 BTU/h
Cooling	Passive Cooling, Fanless Design	
Noise Level	0 dBA	

Power Supply

Input Voltage	9-72VDC,Redundant dual inputs		
Power Consumption	＜2W	＜3W	＜5W
Power Inputs	2		
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(1A@24VDC)		
Protection	Overload Current Protection, Reverse Polarity Protection		
Alarm Relay	One relay output for power failure, Alarm relay current carry ability: 1A@24V DC		

LED Indicators

PI & P2	ON: Power is being supplied , OFF: Power is not being supplied
LINK/ACT	ON: Port connection is active, Blinking: Data transmitted, OFF: Port connection not active
RUN	Blinking: The system is running well, OFF: The system is running unwell

DIP Switch	Name	Status		Description
#1	Broadcast Storm Protection	OFF		Disable
		ON		Enable
#2	Function Reservation	\		\

Regulatory & Warranty

Standard Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet
ISO	Manufactured in ISO-9001facility
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	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

Accessories(Sold Separately)

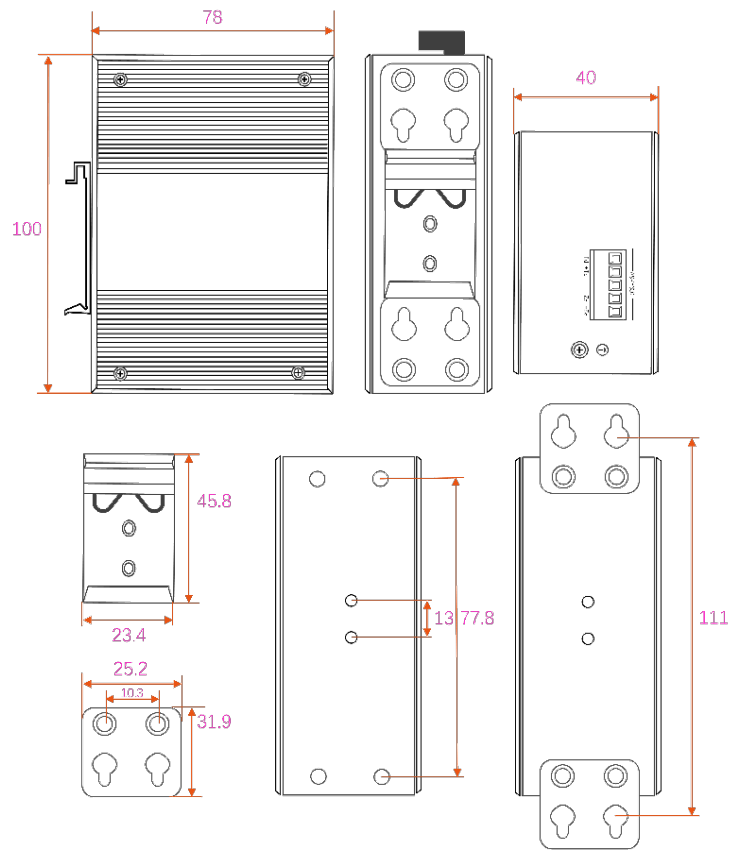### Power Supply

FR-I-10-12	DIN-rail 12VDC power supply with 10W/0.84A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-20-24	DIN-rail 24VDC power supply with 20W/1A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

Armored Fiber Patch Cable / LAN Cable

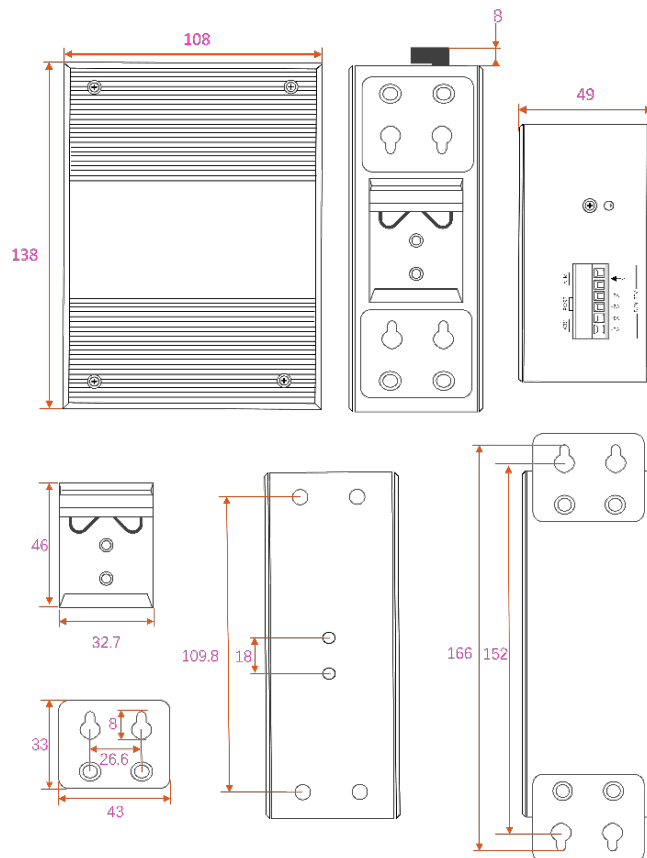|	
FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Ourdoor Application , 1-50m
FRLC-A-CAT6	Armored Cat6 Snagless shielded(SFTP) Ethernet Network Patch Cable, 26AWG, 1000Base-T, 0.5m – 3m

Dimensions   Unit: mm

Model: FICE205/FICE208

Model: FICE216

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-TX RJ45	Input Voltage	Operating Temperature
FICE205	5	DC9-72V	-40 to +75℃
FICE208	8	DC9-72V	-40 to +75℃
FICE216	16	DC9-72V	-40 to +75℃

Shipping

Model No.	FICE205	FICE208	FICE216
Classification Codes	HS Code: 851762		
	HTS: 8517.62.00		
NDAA Compliant	Yes		
Individual Gross Weight	0.4kg		0.8kg
Individual Package Dimension	150*118*53		201*171*73
Package Quantity	62 Units		20 Units
Package Gross Weight	25.2kg		17.6kg
Package Dimension	500*320*450mm		422*385*375mm

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.