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; It also supports a wide range of operating temperatures from -40°C to +75°C making it perfect for any industry where environmental factors play a pivotal role in operations. Overall, this Industrial Ethernet Switch by Fiberroad sets the standard when it comes to reliability, durability, and efficiency in industrial automation settings.

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

Auto Pro series industrial switches, as the outstanding products of Fiberroad Technology in the field of industrial automation, provide comprehensive automation solutions for industrial management systems with their advanced design concepts and outstanding features. The integration automation innovation and professional-grade performance makes it widely used in many application scenarios: industrial automatic management, road traffic and building automatic management, water and power industry automatic management and data center monitoring.

Ethernet Interface			
	FR-7A1005	FR-7A1008	FR-7A1016
Ports	5x10/100Base-T Port(RJ45)	8x10/100Base-T Port(RJ45)	16x10/100-T 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	512K	1M
Maximum Packet Length	9K	9K	9K
MAC Address Table	1K	1K	2K
Transmission Mode	Store and Forward (full/half duplex mode)		
Switch Fabric	1G	1.6G	3.2Gbps(non-blocking)
Throughput(packet per second)	0.74Mpps	1.19Mpps	2.38Mpps
Switching Latency	≤7us	≤7us	≤7us
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		

LED	State	Description
PWR (P1&P2)	ON	Power is being supplied
	OFF	Power is not being Supplied.
Link/ACT (1-8/16)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active.
RUN	Blinking	The system is running well
	OFF	The system is running unwell

Physical Characteristics		
Model	**FA-7A1005/7A1008**	**FR-7A1016**
Housing	Aluminum case	
IP Rating	IP40	
Dimensions	100mm x 78mm x 40mm (L x W x H)	138mm x 108mm x 49mm (L x W x H)
Installation	DIN Rail/Wall Mount	
Weight	300g	680g
Environmental		
Operating Temperature	-40℃~75℃ (-40 to 167 ℉)	
Operating Humidity	5%~95% (non-condensing)	
Storage Temperature	-40℃~85℃ (-40 to 185 ℉)	
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			
Model	FR-7A1005	FR-7A1008	FR-7A1016
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		
Protection	Overload Current Protection, Reverse Polarity Protection		

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

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

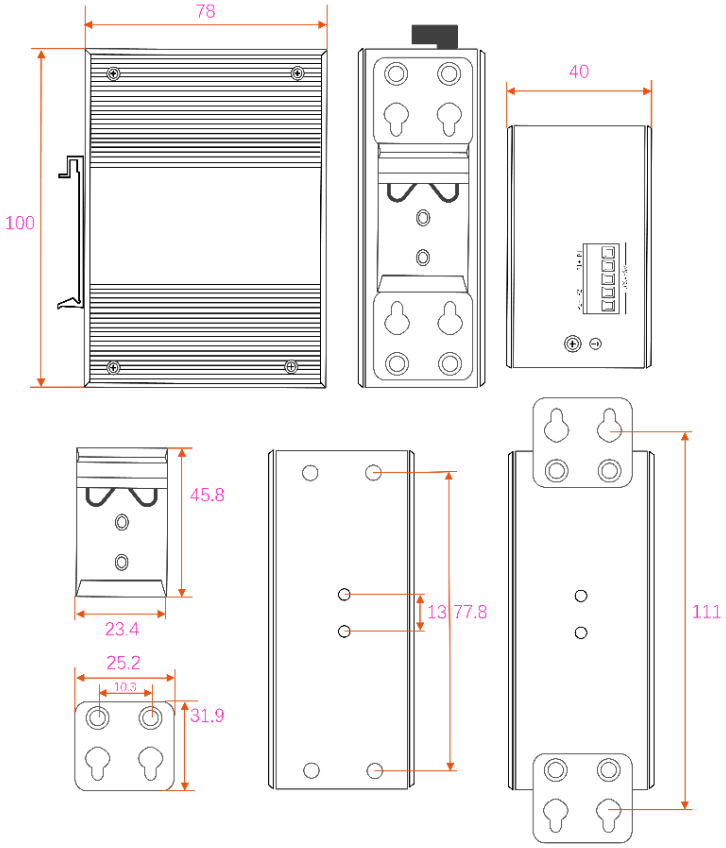
Accessories(Sold Separately)

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

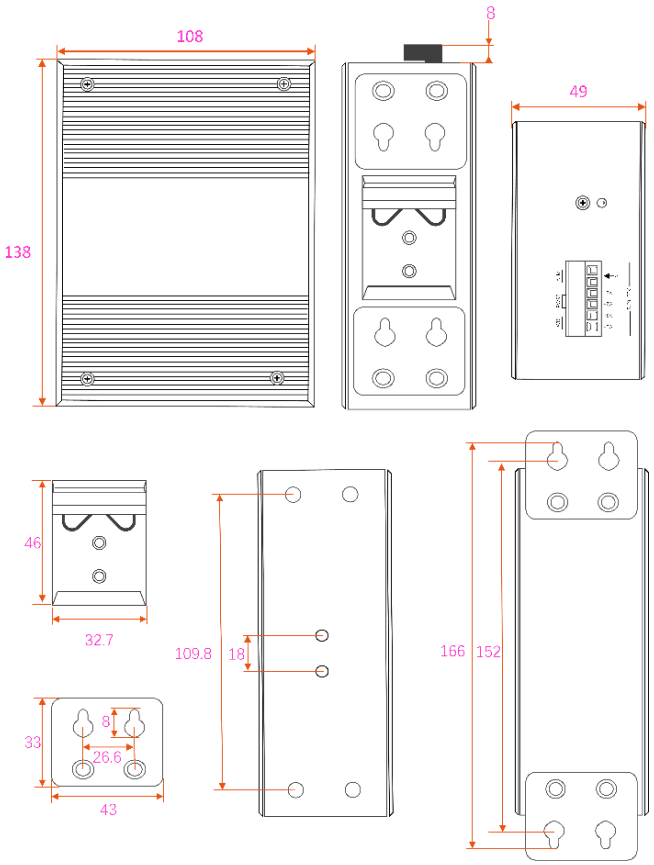
Dimensions

Unit: mm



Model: FR-7A1005/FR-7A1008

Model: FR-7A1016



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	Input Voltage	Operating Temp.
FR-7A1005	5	DC9-72V	-40 to +75℃
FR-7A1008	8	DC9-72V	-40 to +75℃
FR-7A1016	16	DC9-72V	-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,
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