412FX4
Datasheet

Aiming to create better and safer working environments and life experiences through the products we deliver.

AVCOMM Technologies, Inc

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United States

Reliable Plug and Play Industrial Ethernet Switch for Automation and Electrical OEM

412FX4

Industrial Unmanaged Ethernet Switch

AVCOMM 412FX4 is a 12-port plug and play fast unmanaged Ethernet switch with reverse polarity protection of AC or DC input for automation and electrical OEM purpose. It has wide operation temperature range, high EMC performance to ensure stable work in harsh industrial environments and supports DIN Rail-mounted to facilitate in various industrial network applications. AVCOMM 412FX4 is suitable for industrial applications such as industrial automation, intelligent transportation, video surveillance, and electrical OEMs.

IEC61000-6-2
IEC61000-6-4

Features & Benefits

Fast Ethernet Switching

- Eight(8) 10/100BaseT(X) RJ-45 ports and four(4) 100BaseFX port (SC ST FC optional)
- 8K MAC address table
- Store and forwarding with non-blocking technology

IEEE 802.3u EEE Power Management

- Ultra power consumption efficiency, 15 W fully loaded
- Energy Efficient Ethernet for low power requirement
- Idle power saving mode for energy efficiency

Rugged Mechanical Design

- Robust design protects from mechanical deformation
- IP40 industrial rating to withstand harsh environments
- Wide operating temperature range -40°C ~ 85°C
- IEC61000-6-2/IEC61000-6-4 heavy industrial EMS

Power protection

- Provide overload protection
- Provide reverse connection protection
- Provide multiple power input options,AC or DC or HV

Ordering Information

Model Name	Description
412FX4	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FX4-SC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Multimode, SC style connector) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FX4-ST	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Multimode, ST style connector) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C

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Ordering Information

Model Name	Description
412FXE4-SC-15	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, SC style connector, 15Km) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FXE4-ST-15	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, ST style connector, 15Km) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FXE4-SC-40	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, SC style connector, 40Km) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FXE4-ST-40	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, ST style connector, 40Km) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FXE4-SC-100	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, SC style connector, 100Km) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FXE4-ST-100	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, ST style connector, 100Km) , DIN-Rail, Dual Power Input 10-50VDC, -40°C to +85°C
412FX4-SC-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Multimode, SC style connector) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FX4-ST-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Multimode, ST style connector) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FXE4-SC-15-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, SC style connector, 15Km) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FXE4-ST-15-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, ST style connector, 15Km) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FXE4-SC-40-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, SC style connector, 40Km) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FXE4-ST-40-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, ST style connector, 40Km) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FXE4-SC-100-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, SC style connector, 100Km) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FXE4-ST-100-AC	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, ST style connector, 100Km) , DIN-Rail, Dual Power Input 90-264VAC, -40°C to +85°C
412FX4-SC-HV	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Multimode, SC style connector) , DIN-Rail, Dual Power Input 90-264VDC, -40°C to +85°C
412FX4-ST-HV	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Multimode, ST style connector) , DIN-Rail, Dual Power Input 90-264VDC, -40°C to +85°C
412FXE4-SC-15-HV	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, SC style connector, 15Km) , DIN-Rail, Dual Power Input 90-264VDC, -40°C to +85°C
412FXE4-ST-15-HV	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 4 100BaseFX (Singlemode, ST style connector, 15Km) , DIN-Rail, Dual Power Input 90-264VDC, -40°C to +85°C
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Specifications

Technology		
Standard	IEEE 802.3 10Base-T Ethernet	
	IEEE 802.3u 100Base-TX and 100Base FX Fast Ethernet	
	IEEE 802.3z	
	IEEE 802.3x Flow Control and back-pressure	
Performance		
Switch Technology	Store and Forwarding Technology with non-blocking	
Number of MAC Address	8K	
Packet Buffer Memory	3 MB	
Backplane bandwidth	9.6 Gbps	
Forwarding rate	148810pps/1,488,095pps	
Maximum frame length	2 KB	
Interface		
Ethernet Port	8 x 10/100BasetT(x)RJ-45 , 4 x 100Base FX, Auto Negotiation	
System LED	2 x Power: Green On ; 1 x DO Alarm: Red on	
Ethernet Port LED	Link (Green On), Active (Green Blinking)	
Power Input	8-Pin Removable Terminal Connector (V-/N, V+/L, V-/N, V+/L)	
Power Requirement		
Input Voltage	12/24/48VDC (10~50VDC) or 110/220VAC(90~264VAC) or 110/220VDC(90~264VDC) , Redundant	
Reverse Polarity Protect	Yes	
Power Consumption	625mA@24V	
Mechanical		
Enclosure Material	Metal	
Dimension	70 mm x 150 mm x 120 mm (W x H x D) without DIN Rail Clip	
Ingress Protection	IP40	
Weight	<1700 g	
Installation method	DIN Rail-mounted	
Environmental		
Operating Temperature & Humidity	-40°C~+85°C , 0%~95% Non- Condensing	
Storage Temperature	-40°C~+85°C	
MTBF	>2,000,000 hours	
Warranty	5 years	
Standard		
EMI	FCC Part 15, CISPR(EN55022) class A	
EMS	IEC(EN)61000-4-2(ESD) IEC(EN)61000-4-3(RS) IEC(EN)61000-4-4(EFT) IEC(EN)61000-4-5(Surge) IEC(EN)61000-4-6(CS) IEC(EN)61000-4-8 IEC 60068-2-27(Shock) IEC 60068-2-32(Freefall)	
100Base FX		
Multi Mode	AVC-SFP-FX-SX （550m）	Wavelength: 850 nm
	AVC-SFP-FX-S （2km）	Wavelength: 1310 nm
Single Mode	AVC-SFP-FX-10 (10km)	Wavelength: 1310 nm

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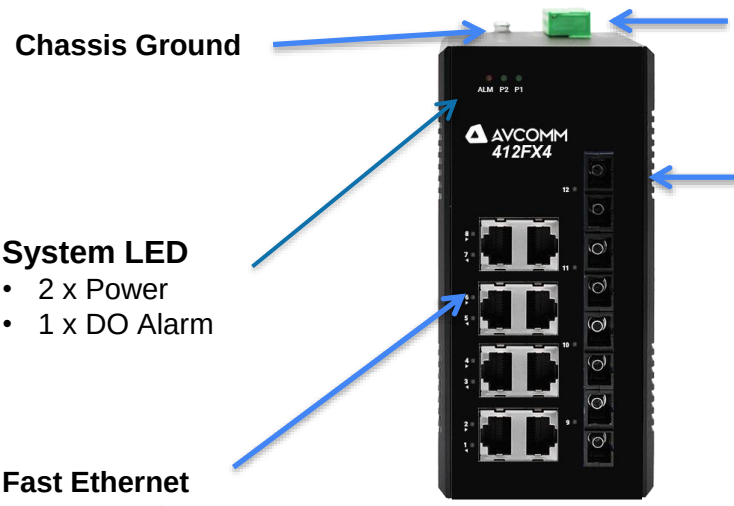
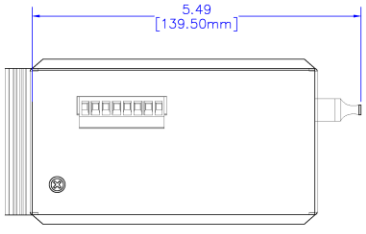
Function interface

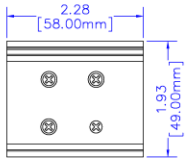


Installation dimensions

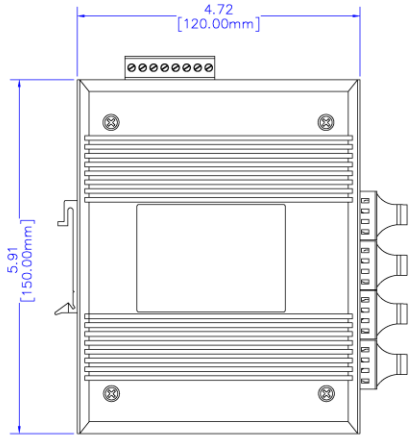
Unit: inch ±0.040 / [mm] ±1.00



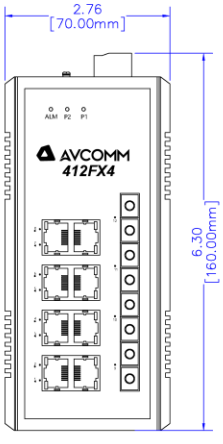
Top view



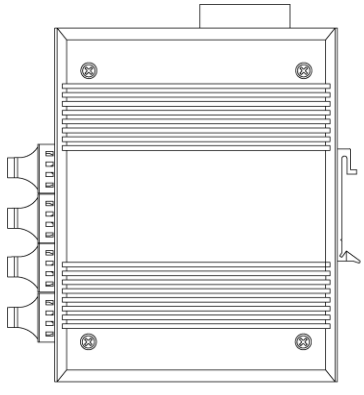
Rail piece



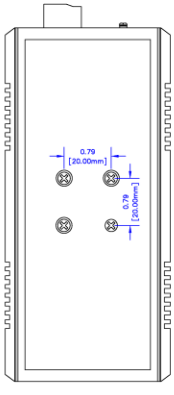
Left side view



Front view



Right side view



Rear view

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