



AVCOMM®

412FX4

Datasheet

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



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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.



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



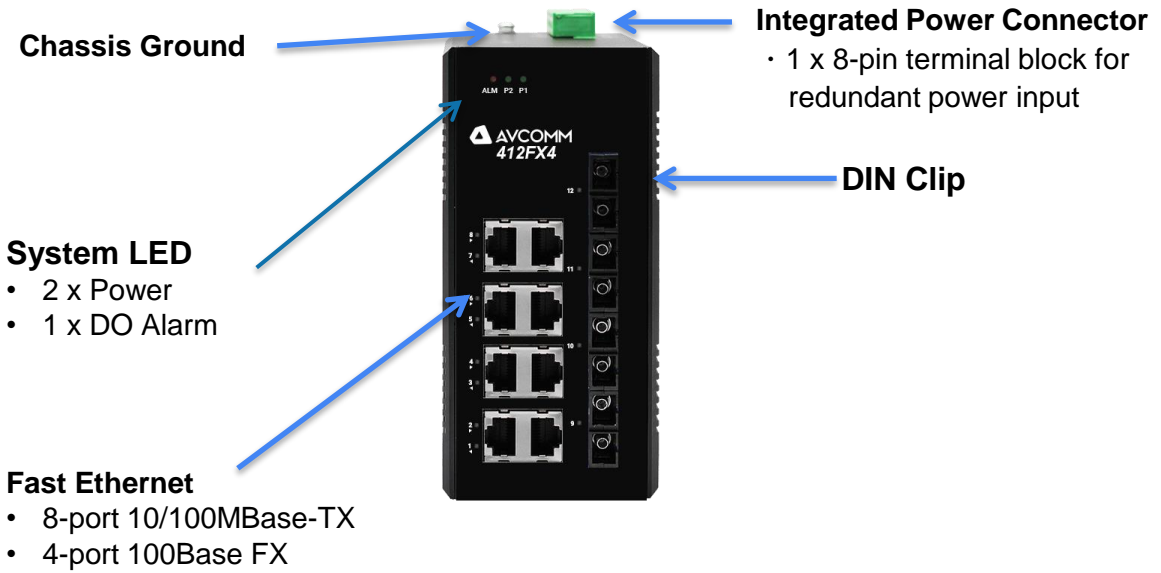
Ordering Information

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

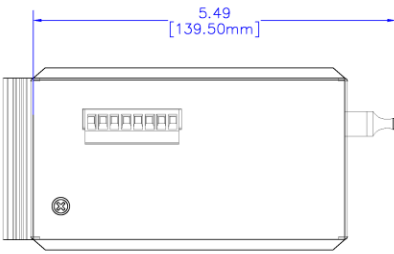
Technology	
Standard	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u 100Base-TX and 100Base FX Fast Ethernet
	IEEE 802.3z
	IEEE 802.3x Flow Control and back-pressure
Performance	
Switch Technology	Store and Forwarding Technology with non-blocking
Number of MAC Address	8K
Packet Buffer Memory	3 MB
Backplane bandwidth	9.6 Gbps
Forwarding rate	148810pps/1,488,095pps
Maximum frame length	2 KB
Interface	
Ethernet Port	8 x 10/100BaseT(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)

Function interface

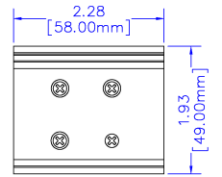


Installation dimensions

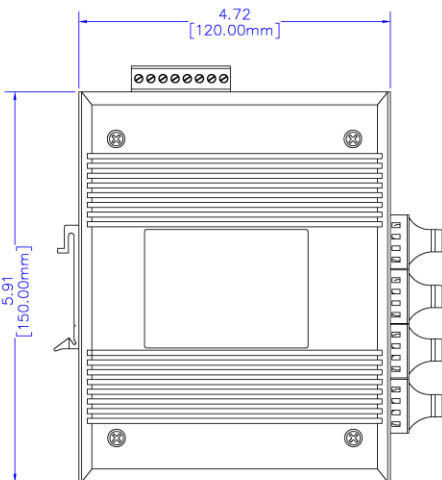
Unit: $\frac{\text{inch} \pm 0.040}{[\text{mm}] \pm 1.00}$



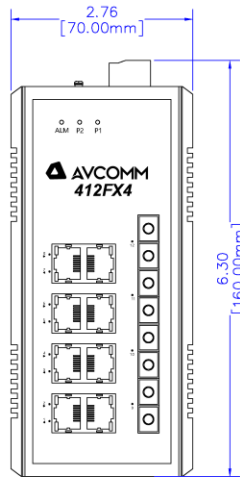
Top view



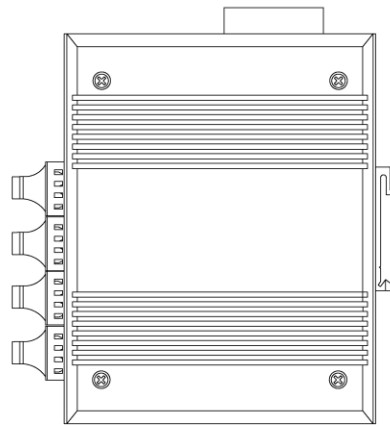
Rail piece



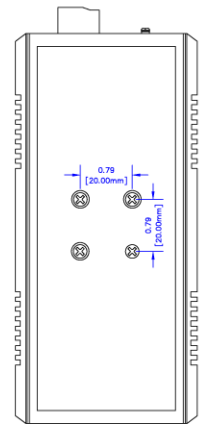
Left side view



Front view



Right side view



Rear view