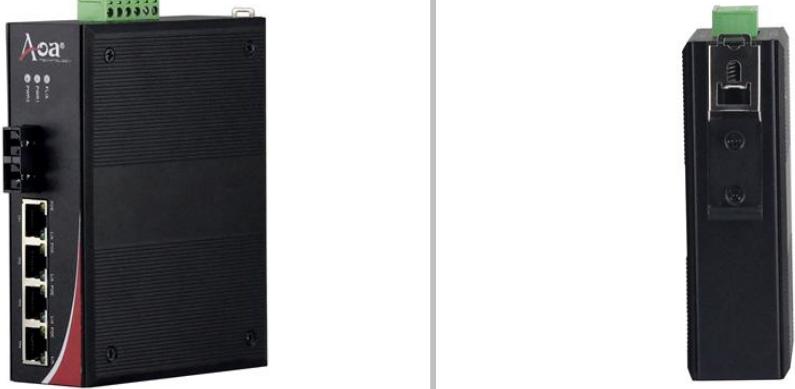


Item	Industrial Ethernet Switch
Series No.	IES1104
Description	4 x 10/100Base-TX to 100Base-FX
	

Overview

The IES1104 series is a performance and cost-effective Industrial Ethernet Switch that meet the high reliability requirements of industrial network operations. It is designed to extend the distance of a network by converting Fast Ethernet data between twisted pair cabling and multi-mode or single-mode fiber-optic cabling.

The IES1104 features 1x 100Base-FX fiber port and 4 x 10/100Base-TX twisted-pair port. The fiber optic port features SC connector and operating distance from 2km to 120km depending on different Model. The twisted-pair port has 4 x RJ-45 connector with a maximum operating distance of 100m. The IES1104-F provides one SFP slot for any MSA-complaint pluggable 155M SFP transceivers.

The IES1104 Industrial Fast Ethernet Switch is designed to stand up to extreme temperature, surges, vibrations, and shocks found in industrial automation, government, military, oil & gas, mining and outdoor applications, such as traffic management, oil and gas pipelines.

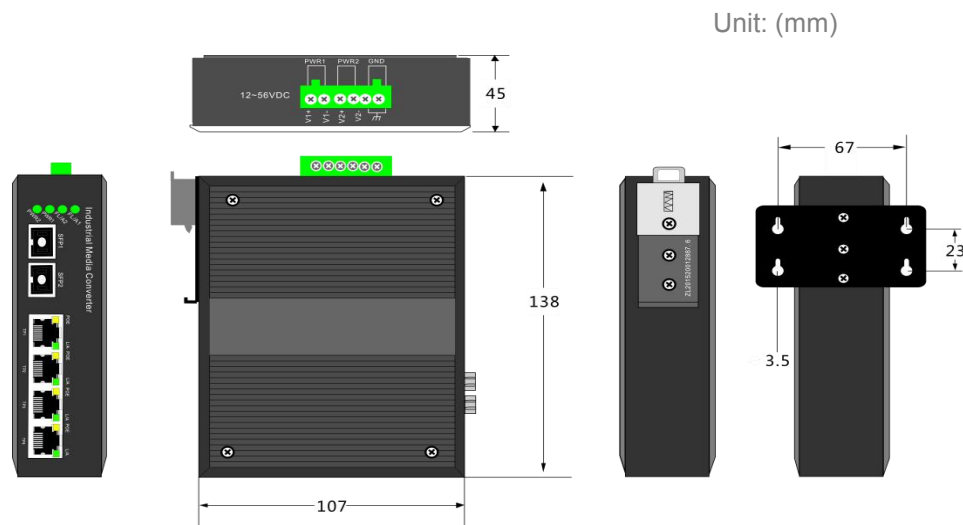
The IES1104 series enables real-time deterministic network operation, requires no configuration and will instantly operate as soon as you power it up. Additionally, they can be installed by DIN-rail or wall-mounted, allowing users to deploy any mix of network conversions required.

Many Backbone switch products now support the industry-standard IEEE802.1Q specification for VLANs that send extra-long data packets on the network. The IES1104 series converters are fully compatible with these long packets, enabling them to be used in modern networks.

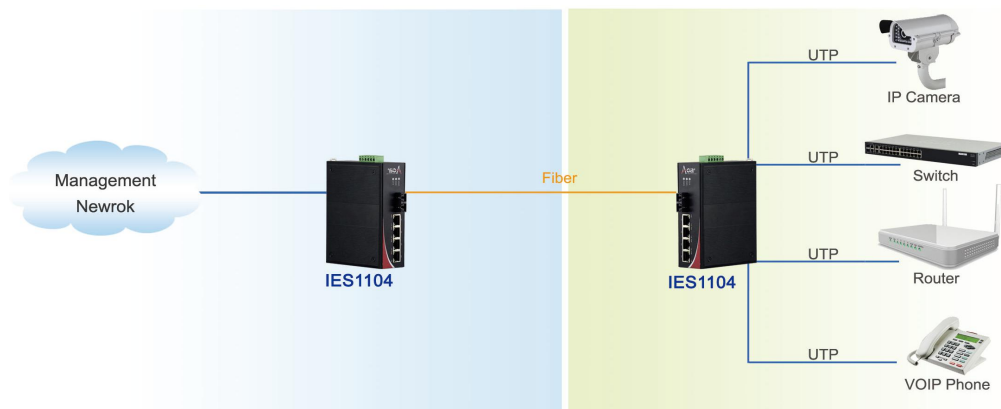
Features

- 4 x 10/100Base-TX Port to 1 x 100Base-FX
- 1*9 fixed fiber module or SFP slot optional
- RJ45 support auto MDI/MDI-X function
- Auto-negotiation speed, half/full-duplex
- Store-and-forward
- Max packet size: 2048bytes
- Support wide operating temperature (-40 °C ~ +85 °C)
- Wide-range redundant power design (12~56VDC)
- Power polarity reverse protect
- Overload current resettable fuse present
- IP-40 protection
- Provide EFT protection for Power line
- Support Ethernet ESD protection
- DIN-Rail and Wall-Mounted Installation
- Low power consumption

Structure



Applications



Technical Specifications

Standards	IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.3x Flow control and back pressure IEEE802.1d Spanning Tree
Performance	Processing Type : Store and Forward Back Bandwidth: 1.0Gbps MAC Address Size: 1024Kbits Packet Buffer Size: 512Kbit Time Delay: <10us Frame: 2048bytes
Copper Port	Data Rate: 10/100M Connector: RJ45 x 4 Distance: 100m
Fiber Port	Data Rate: 155M Connector: SC as default, FC/ST/SFP optional Distance: MMF=2km; SMF=20/40/80/100/120km Bi-Di=20/40/80/100/120km
LED indicators	PWR1: ON=Power Connected PWR2: ON= Power Connected FL/A: ON=Fiber Connected; Active=Data Transmitting TL/A: ON=Copper Connected; Active= Data Transmitting
Power	Input Voltage: 12~56 VDC, redundant power inputs Power Consumption: ≤6W Protection: Overload Current; Reverse Polarity Connector: Terminal Block
Environment	Operating Temperature: -40 °C ~ +85 °C Storage Temperature: --40 °C ~ +95 °C Relative Humidity: 5-95% (no condensation)
Physical Characteristics	Housing: IP40 Protection, Aluminum Alloy Installation: DIN-rail mounting, wall mounting(with optional kit) Dimension: 138*107*45mm(device); 220*175*73mm(packing) Weight: 0.48kg(device); 0.63kg(device with packing)

Standards and Certifications

EMC	CE
EMI	FCC Part 15 CLASS A
EMS	IEC 61000-4-2 Level 4 (8K/15K)
	IEC 61000-4-3 Level 3 (10V/m)
	IEC 61000-4-4 Level 3 (1V/2V)
	IEC 61000-4-5 Level 3 (4KV/2KV)
	IEC 61000-4-6 Level 3 (10V/m)
	IEC 61000-4-8 Level 4 (30A/m)
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32 0.5m
Vibration	IEC 60068-2-6
Railway Traffic	EN50121-4

Order Information

Model No.	Description
IES1104-M02	10/100M 1FX4FE,MMF,1310nm,SC,2km
IES1104-S20	10/100M 1FX4FE,SMF,1310nm,SC,20km
IES1104-S40	10/100M 1FX4FE,SMF,1310nm,SC,40km
IES1104-A20	10/100M 1FX4FE,Bi-di,TX1310/RX1550nm,SC,20km
IES1104-B20	10/100M 1FX4FE,Bi-di,TX1550/RX1310nm,SC,20km
IES1104-A40	10/100M 1FX4FE,Bi-di,TX1310/RX1550nm,SC,40km
IES1104-B40	10/100M 1FX4FE,Bi-di,TX1550/RX1310nm,SC,40km
Note: 1. Power supply provided by user or ordered additionally 2. SC connector as default, FC/ST as request	