IES3204

Industrial Ethernet Switch

4x10/100/1000Base-T to 2x1000Base-X

Overview

The **IES3204** is a cost-effective, unmanaged industrial switch engineered specifically for high-reliability demands in mission-critical operations. By seamless converting Gigabit Ethernet data between RJ45 copper and multi-mode or single-mode fiber, it effectively eliminates the distance limitations of traditional networking.

Industrial-Grade Reliability Built to endure the rigors of harsh environments, the IES3204 series is engineered to withstand the most demanding conditions. With a **ruggedized IP40-rated housing**, it delivers reliable performance across an extended operating temperature range of **-40°C to +85°C**. This resilience, combined with high-level EMI protection against surges and shocks, makes it a trusted solution for oil & gas pipelines, underground mining, and outdoor ITS (Intelligent Transportation Systems).

Plug-and-Play Performance Designed for rapid deployment, the series offers real-time deterministic operation with no software configuration required. These units feature a versatile housing that is both **DIN-rail and wall-mountable**, ensuring a perfect fit for any industrial cabinet.
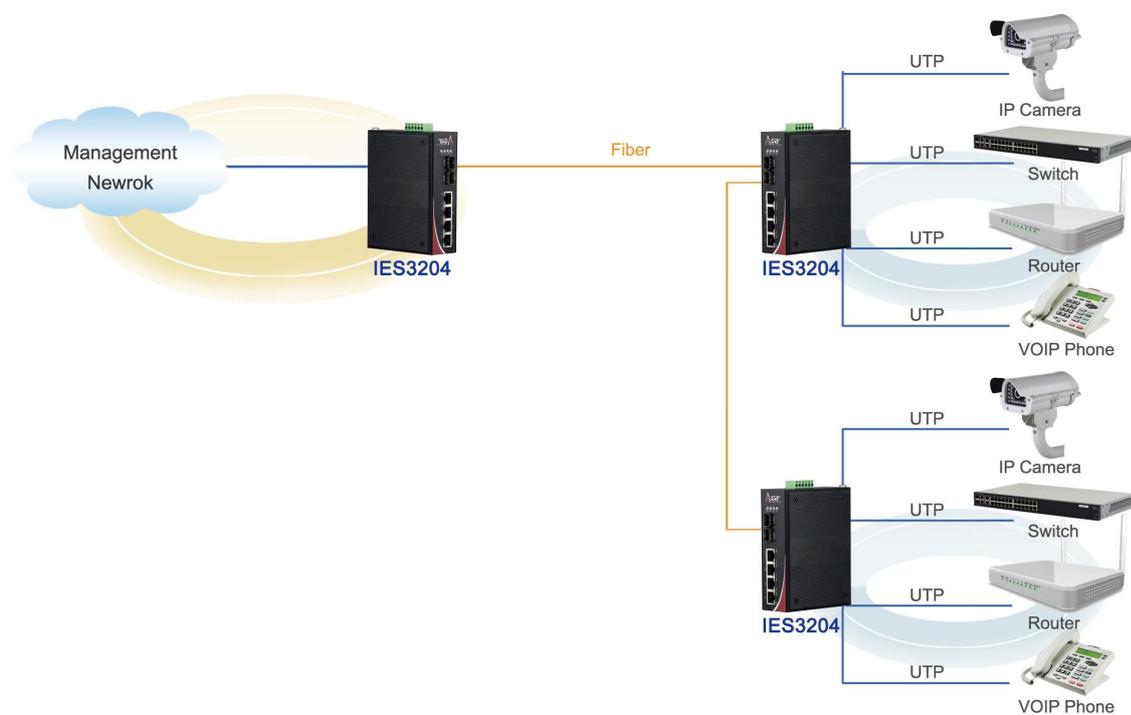
Port Configuration & Versatility

- **IES3204**: Features 2 x 1000Base-X fixed fiber ports and 4 x 10/100/1000Base-T RJ45 ports.
- **IES3204-SFP**: Equipped with 2 x 1.25G SFP slots and 4 x 10/100/1000Base-T ports.
- **Maximum Flexibility**: The SFP slots are compatible with any MSA-compliant pluggable transceivers. AOA offers a full range of matching industrial-grade SFP modules (available in various distances and fiber types) to ensure seamless integration and optimal performance in extreme conditions.
- **Reliable Copper Links**: All RJ45 ports support standard auto-negotiation and Auto-MDI/MDI-X, with a maximum transmission distance of 100 meters.

Features

- Provide 4 x 10/100/1000Base-T
- 2 x 1000Base-X for Daisy-Chain
- RJ45 supports auto MDI/MDI-X function
- Auto-negotiation speed, half/full-duplex
- Store-and-forward
- Max packet size: 10K bytes
- 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
- Provides EFT protection for Power line
- Support Ethernet ESD protection
- DIN-Rail and Wall-Mounted Installation
- Low power consumption

Applications

Technical Specifications

Standards	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-SX/LX standards IEEE802.3x Flow control and back pressure IEEE802.1d Spanning Tree
Performance	Processing Type: Store and Forward Back Bandwidth: 12Gbps MAC Address Size: 1Kbit Packet Buffer Size: 1Mbit Time Delay: <10us Frame: 10Kbytes
Copper Port	Data Rate: 10/100/1000M Connector: RJ45 x 4 Distance: 100m
Fiber Port	Data Rate: 1.25G Connector: SC as default, FC/ST/SFP Slot Optional Distance: MMF 550m/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 L/A: ON=Copper Connected; Active= Data Transmitting 1000M: ON=1000M; OFF=10/100M
Power	Input Voltage: 12~56 VDC, redundant power inputs Power Consumption: ≤7W 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)

Order Information

Model	Description
IES3204-SFP	10/100/1000M,2GX4GE,SFP Slot
IES3104-M05	10/100/1000M,1GX4GE,MM dual fiber,850nm,550m,SC
IES3104-S20	10/100/1000M,1GX4GE,SM dual fiber,1310nm,20Km,SC
IES3204-M05	10/100/1000M,2GX4GE,MM dual fiber,850nm,550m,SC
IES3204-S20	10/100/1000M,2GX4GE,SM dual fiber,1310nm,20Km,SC
Note: AC/DC power supply purchased separately	

Related Products

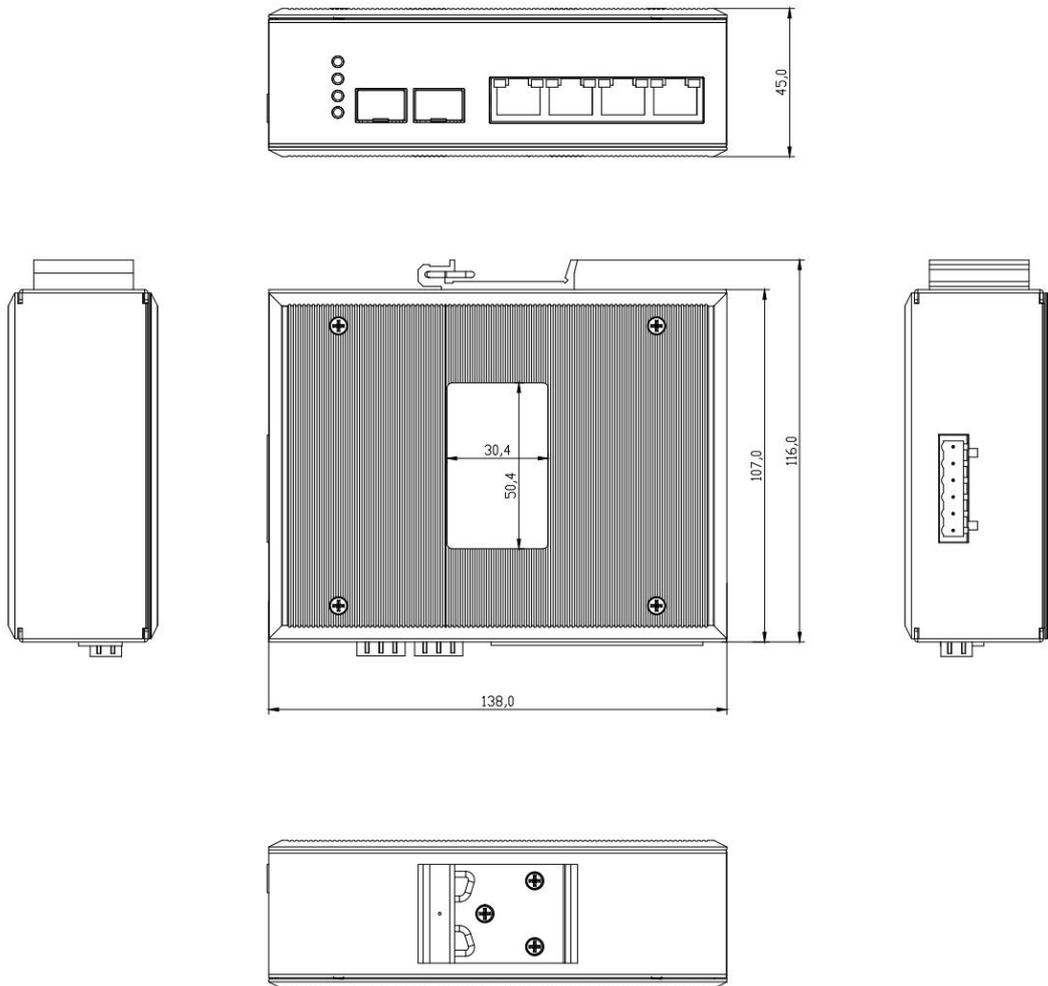| Model	Description
DIN-rail Power supply	
HDR-15-24	DIN-rail 15W, 85~264Vac input, 24V0.63A output
SFP Module	
SFP-M1285L-05I	1.25G MM 850nm LC 550m DDM, Industrial Grade
SFP-M1213L-02I	1.25G MM 1310nm LC 2km DDM, Industrial Grade
SFP-S1213L-20I	1.25G SM 1310nm LC 20km DDM, Industrial Grade
SFP-B1235L-20I	1.25G SM TX1310/RX1550nm LC 20km DDM, Industrial Grade
SFP-B1253L-20I	1.25G SM TX1550/RX1310nm LC 20km DDM, Industrial Grade
Long distance 40/60/80/100/120km is available	
Installation Accessories	
TK12	Wall-mounted kits, 118*18*16mm, φ3.5mm L=12mm
A02	Side DIN-rail mounted kits, 72.7*70*8.5mm, φ3.5mm L=6mm
CK01	Rack-mounted bracket with Din-rail, 483*215*130mm

TK12 Wall-mounted kits   A02 Side DIN rail mounted kits   CK01 Rack-mounted bracket

Structure diagram (mm)

45,0

30,4

50,4

107,0

116,0

138,0