



## IES6116 Series

DIN-Rail Mounting

16-port 100M Layer 2 Managed Industrial Ethernet Switch

- Support 8 100M copper ports, 8 100M optional fiber or copper Ethernet ports
- Adopt SW-Ring patent technology, support single ring, coupling ring, chain ring, Dual-homing ring network function, automatic recovery time of network failure < 20ms
- Support dual power supply input, input voltage: 12~48VDC
- Support -40~75°C wide operating temperature range



Industrial Grade



RPS



## Introduction

IES6116 series are 16-port 100M layer 2 managed industrial Ethernet switches. This series include five types of products and provide 100M copper ports, 100M fiber ports. It adopts DIN-Rail mounting to meet the requirements of different application scenes.

Network management system supports various network protocols and industrial standards, such as STP/RSTP, 802.1Q VLAN, QoS, IGMP Static Multicast, Port Trunking, Port Mirroring, etc. It also possesses complete management functions, including Port Configuration, Port Statistics, Access Control, Network Diagnosis, Rapid Configuration, Online Upgrading and so on, and supports CLI, WEB, Telnet, SNMP and other access methods. It can provide users with good experience with friendly design of network management system interface, simple and convenient operation.

Power supply input is two independent power supply circuits, which can ensure the device normal operation when one of the power supplies breaks down. DIP switch can restore factory defaults. When power supply or port link failure occurs, ALARM indicator will be bright and send out alarm, meanwhile, alarm device connected to the relay will send out alarm for rapid scene troubleshooting. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in smart grid, rail transit, smart city, safety city, new energy, aerospace, intelligent manufacturing, military project and other industrial fields.

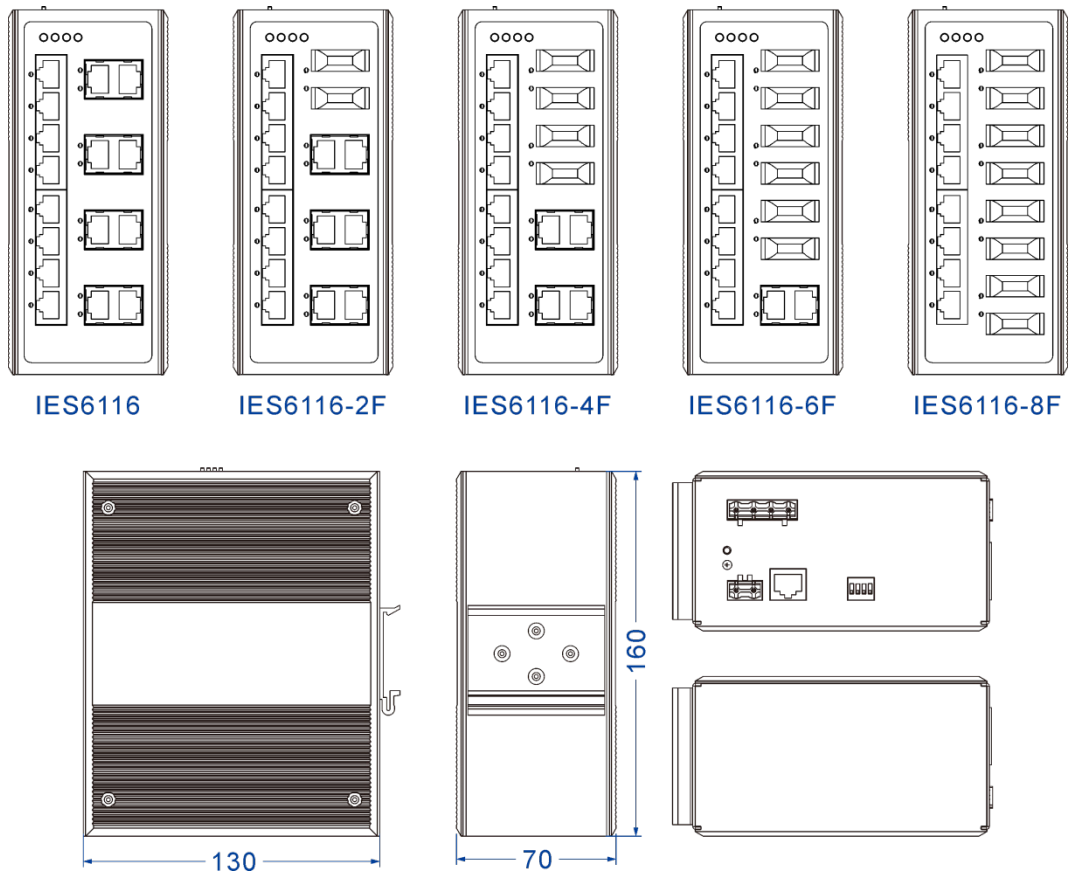
## Features and Benefits

- ⊙ SNMPv1/v2c is used for network management of various levels.
- ⊙ Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging.
- ⊙ QoS supports real-time traffic classification and priority setting.
- ⊙ DHCP server and client can be used for distributing IP address
- ⊙ File management is convenient for device rapid configuration and online upgrading
- ⊙ Bandwidth management can reasonably distribute network bandwidth, preventing unpredictable network status
- ⊙ Port statistics can be used for the port real-time traffic statistics
- ⊙ User password can conduct user hierarchical management to improve the device management security
- ⊙ Mac port lock can enhance the network flexibility and security
- ⊙ E-mail alarm is convenient for immediate fault discovery during remote management
- ⊙ Relay alarm is convenient for troubleshooting of construction site
- ⊙ Storm suppression can restrain the broadcast, unknown multicast and unknown unicast

- ⦿ VLAN can be used for simplifying network planning
- ⦿ Port trunking can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
- ⦿ IGMP snooping, GMRP and static multicast are used for filtering multicast traffic to save network bandwidth
- ⦿ SW-Ring and STP/RSTP can achieve network redundancy, preventing network storm

## Dimension

Unit:mm



## Specification

### Standard & Protocol

IEEE 802.3 for 10Base-T  
IEEE 802.3u for 100Base-TX and 100Base-FX  
IEEE 802.3x for Flow Control  
IEEE 802.1D for Spanning Tree Protocol  
IEEE 802.1w for Rapid Spanning Tree Protocol  
IEEE 802.1Q for VLAN

	IEEE 802.1p for CoS																		
Management	SNMP v1/v2c Centralized Management of Equipment, Port Mirroring, QoS, DHCP Server, DHCP Client, File Management, Port Statistics																		
Security	Classification of User Permissions, Port Alarm, Power Supply Alarm, E-mail Alarm																		
Switch Function	802.1Q Vlan, Static Port Aggregation, Bandwidth Management, Flow Control																		
Unicast / Multicast	Static Multicast, GMRP, IGMP-Snooping																		
Redundancy Protocol	SW-Ring, STP/RSTP																		
Time Management	SNTP																		
Interface	Copper port: 10Base-T/100Base-TX, RJ45, Automatic Flow Control, Full/half Duplex Mode, MDI/MDI-X Autotuning Fiber port: 100Base-FX, SC/ST/FC optional Console port: CLI command line management port (RS-232), RJ45 Alarm port: 2-pin 7.62mm pitch terminal blocks, support 1 relay alarm output, current carrying capacity 5A@30VDC or 10A@125VAC																		
LED Indicator	Running Indicator, Port Indicator, Power Supply Indicator, Alarm Indicator																		
Switch Property	Transmission mode: store and forward MAC address: 8K Packet buffer size: 3Mbit Backplane bandwidth: 12.8G Switch time delay: < 10 $\mu$ s																		
Power Requirement	12~48VDC, 4-pin 7.62mm pitch terminal blocks Dual power supply redundancy, nonpolarity, reverse polarity protection Support 4A overcurrent protection																		
Power Consumption	<table border="1"> <thead> <tr> <th>Model</th> <th>No-load (@24VDC)</th> <th>Full-load (@24VDC)</th> </tr> </thead> <tbody> <tr> <td>IES6116</td> <td>5.06W</td> <td>7.56W</td> </tr> <tr> <td>IES6116-2F</td> <td>6.43W</td> <td>8.62W</td> </tr> <tr> <td>IES6116-4F</td> <td>7.68W</td> <td>9.55W</td> </tr> <tr> <td>IES6116-6F</td> <td>9.00W</td> <td>10.73W</td> </tr> <tr> <td>IES6116-8F</td> <td>10.30W</td> <td>12.50W</td> </tr> </tbody> </table>	Model	No-load (@24VDC)	Full-load (@24VDC)	IES6116	5.06W	7.56W	IES6116-2F	6.43W	8.62W	IES6116-4F	7.68W	9.55W	IES6116-6F	9.00W	10.73W	IES6116-8F	10.30W	12.50W
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Environmental Limit	Operating temperature range: -40~75°C Storage temperature range: -40~85°C Relative humidity: 5% ~ 95% (no condensation)																		

**Physical Characteristic**  
Housing: IP40 protection, metal  
Installation: DIN-Rail mounting  
Dimension (W x H x D): 70mm×160mm×130mm

<b>Industrial Standard</b>	<p>IEC 61000-4-2 (ESD), Level 4</p> <ul style="list-style-type: none"><li>● Air discharge: ±15kV</li><li>● Contact discharge: ±8kV</li></ul> <p>IEC 61000-4-4 (EFT), Level 4</p> <ul style="list-style-type: none"><li>● Power supply: ±4kV</li><li>● Ethernet interface: ±2kV</li><li>● Relay: ±4kV</li></ul> <p>IEC 61000-4-5 (Surge), Level 3</p> <ul style="list-style-type: none"><li>● Power supply: common mode ±2kV, differential mode ±1kV</li><li>● Ethernet interface: ±2kV</li><li>● Relay: common mode ±2kV, differential mode ±1kV</li></ul> <p>Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6</p>
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**Certification** CE, FCC, RoHS

<b>Warranty</b>	5 years
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## Ordering Information

Available Models	100M Fiber Port	100M Copper Port	Power Supply Range
IES6116	-	16	12~48VDC dual power supply
IES6116-2F	2	14	
IES6116-4F	4	12	
IES6116-6F	6	10	
IES6116-8F	8	8	



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