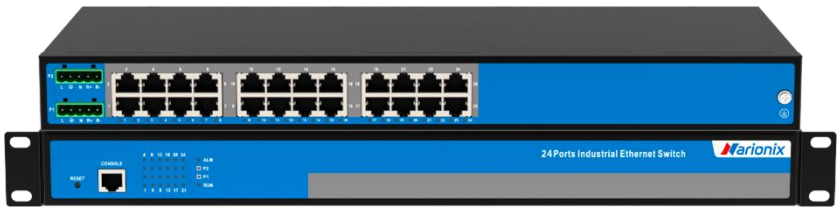


IES5100 Series

19-inch 1U Rack Mounting
24-Port Layer 2 Managed Industrial Ethernet Switch

- Support 24 100M Ethernet ports (optional fiber/copper ports)
- Adopt Ring patent technology, support single ring, coupling ring, chain ring, Dual-homing ring network function, automatic recovery time of network failure < 50ms
- Support Modbus TCP protocol, and the client can read the switch information, which is convenient for integrated monitoring and management
- Optional DC (18~72VDC) or AC (85~264VAC/DC) power supply, support dual power supply redundancy
- Support -40~75℃ wide operating temperature range
- Support IP40 protection grade

Industrial Grade RPS Fanless Desig

ROBUST INDUSTRIAL CONNECTION

Introduction

IES5100 series are 24-port layer 2 managed industrial Ethernet switches. This series of products provide 100M copper port and 100M fiber port. A variety of different fiber/copper port combination schemes can be selected. Support 18~72VDC or 85~264VAC/DC power supply scheme(optional), and adopt rack installation mode, which can meet the requirements of different application sites.

Network management system supports various network protocols and industrial standards, such as STP/RSTP, 802.1Q VLAN, QoS Function, IGMP Snooping Function, Link Aggregation, Port Mirroring, LLDP, 802.1X, Modbus TCP; It also possesses complete management functions, including log information, DHCP Server, Port Configuration, Port Statistics, Network Diagnosis, Rapid Configuration, Online Upgrading and so on, and supports CLI, WEB, Telnet, SSH, SNMP and other access methods. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

RESET button can reboot the device and restore factory defaults. The input power supply is two independent power supply circuits which can ensure the normal operation of the device when one power supply fails. When power supply or port has link failure, ALM indicator will be bright and send out alarm, meanwhile, alarm device connected to the relay will send out alarm for rapid scene troubleshooting. The hardware adopts fanless, low power consumption and wide temperature design, which has passed rigorous industrial standard tests, and suits the industrial scene environment with harsh requirements for EMC. It can be widely used in smart grid, new energy storage, new energy, smart mining, smart motorway, intelligent manufacturing and other industrial fields.

Features and Benefits

- SNMPv1/v2c/v3 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
- LLDP can achieve automatic topology discovery, which is convenient for visual management
- File management is convenient for rapid configuration and online upgrading of the device
- Bandwidth management can reasonably distribute network bandwidth, preventing unpredictable network status
- Port statistics can be used for the port real time traffic statistics
- Relay alarm is convenient for troubleshooting of construction site
- Storm suppression can restrain broadcast, unknown multicast and unicast
- Support TELNET configuration and SSH configuration, SSH can guarantee secure

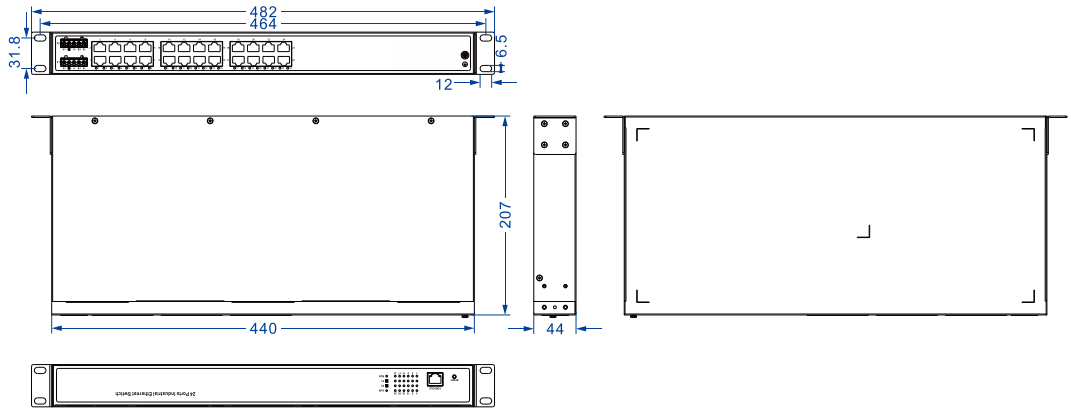
access to data

- VLAN is 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 can be used for filtering multicast traffic to save the network bandwidth
- Ring and STP/RSTP can achieve network redundancy, preventing network storm
- 802.1X authentication could strength the flexibility and security of network
- Loop protection could efficiently eliminate the influence caused by port loopback by detecting the existence of port loopback
- Support Modbus TCP protocol, and the client can read the switch information, which is convenient for integrated monitoring and management
- Network diagnosis and troubleshooting could be conducted via Ping
- Support log information and Syslog server, which can check the log information of the device system locally or remotely

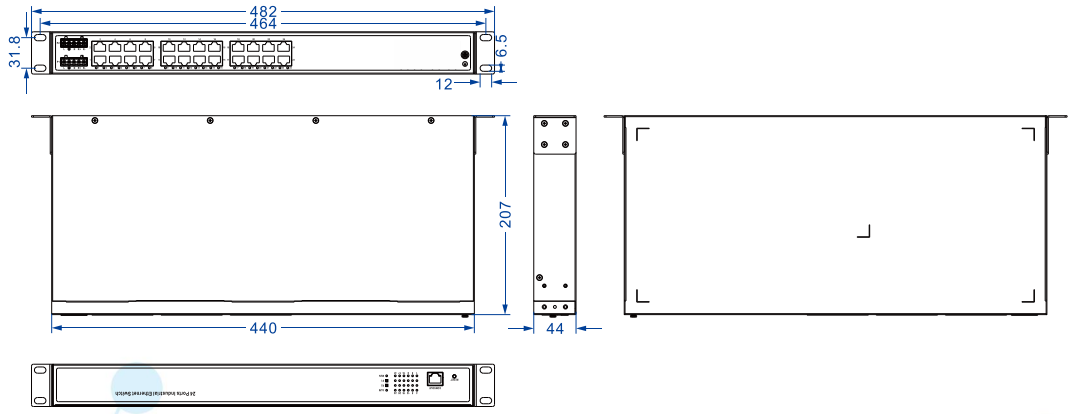
Dimension

Unit: mm

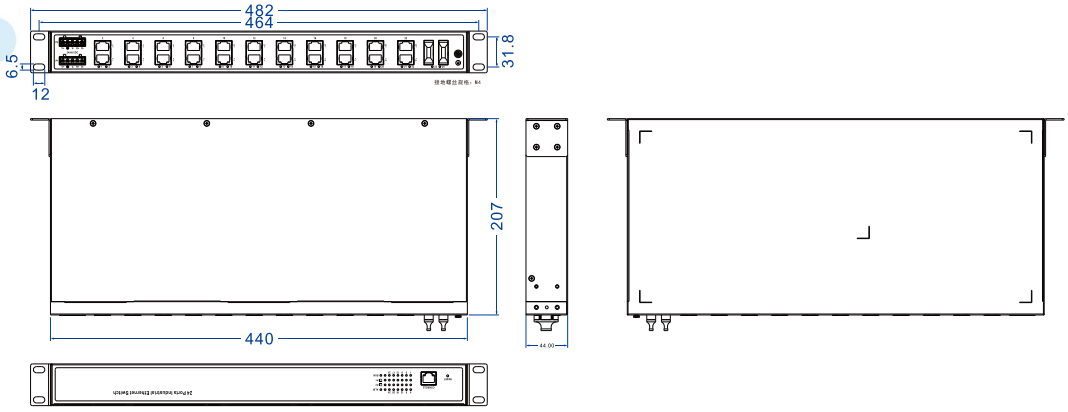
- IES5100-24T-2LV



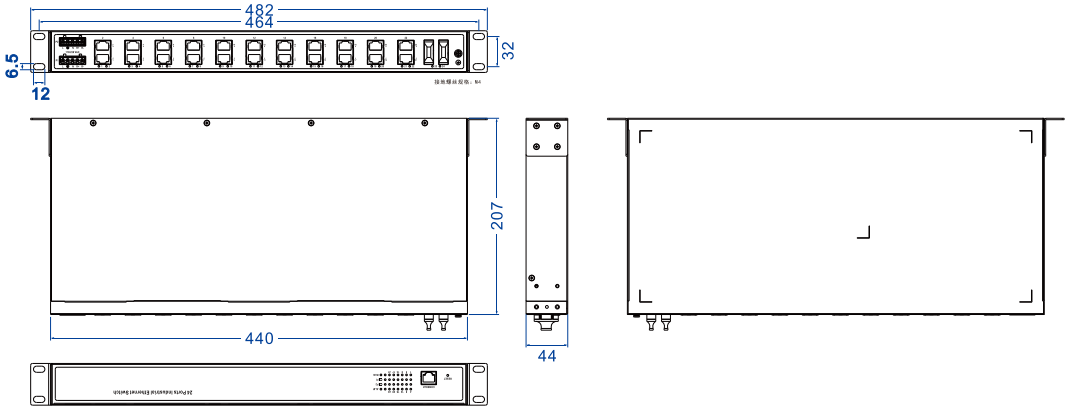
- IES5100-24T-2HV



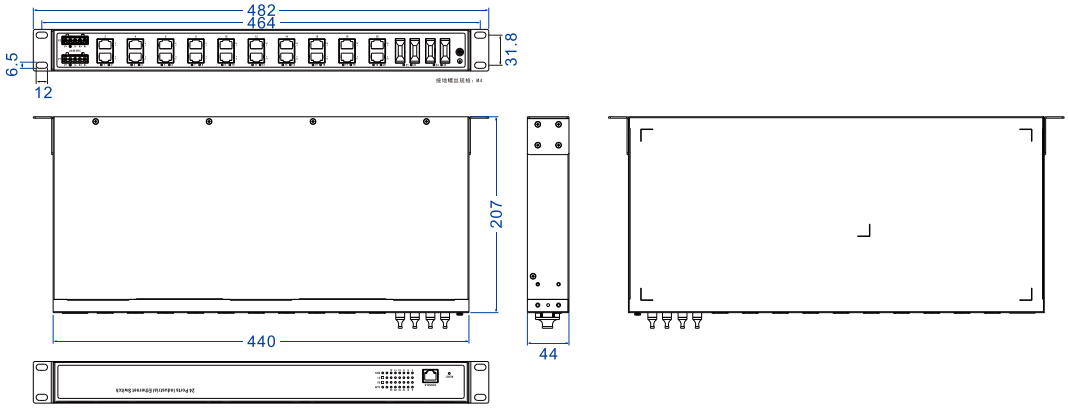
- IES5100-22T2F-2LV



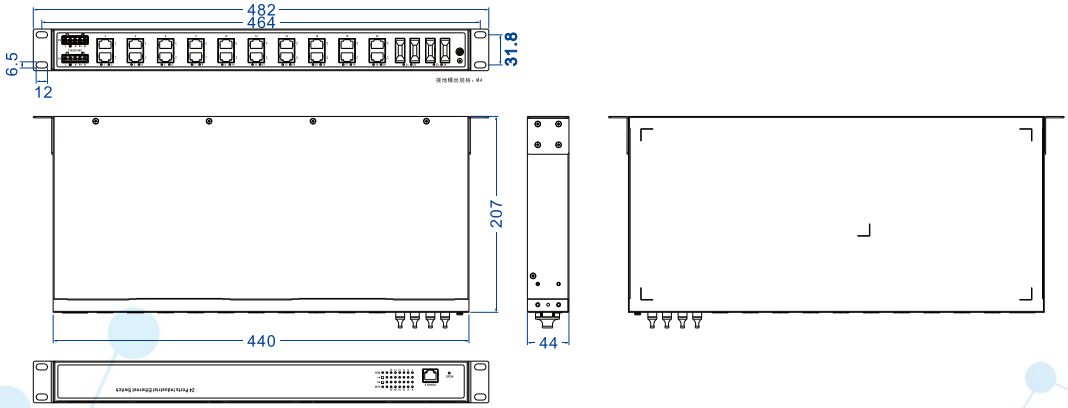
- IES5100-22T2F-2HV



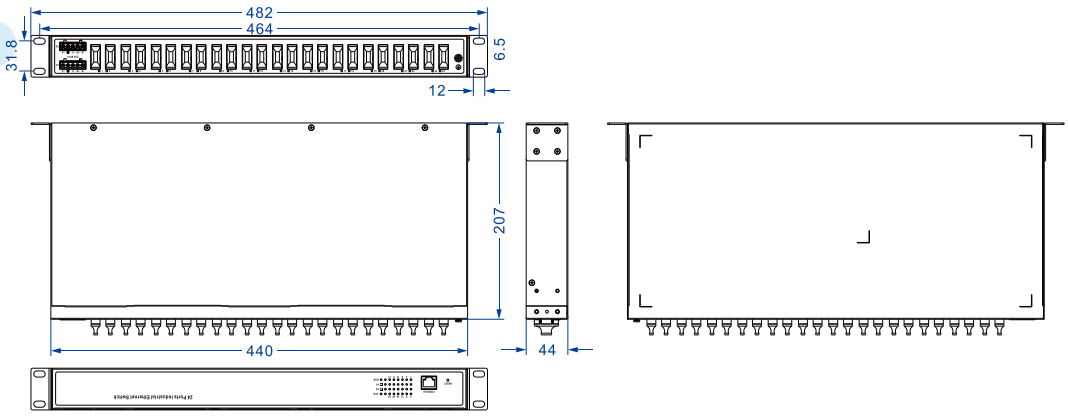
- IES5100-20T4F-2LV



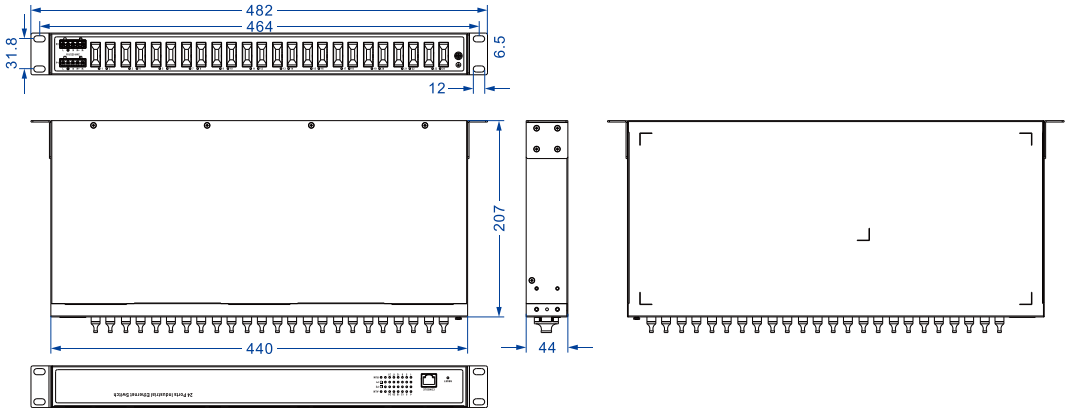
- IES5100-20T4F-2HV



- IES5100-24F-2LV



- IES5100-24F-2HV



Specification

Standard & Protocol	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-X 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 IEEE 802.1X for 802.1X Authentication IEEE 802.1AB for LLDP
Management	SNMP v1/v2c/v3, Telnet/SSH configuration, Port Setting, Port Rate Limit, Port Mirroring, Port Statistics, Static MAC, LLDP, DHCP Server, QoS, Modbus TCP, Configuration File Management, Software Upgrade, log Information, Syslog Server
Security	User configuration, port loop detection, 802.1X authentication/Radius server, port/power alarm, utilization alarm and mail alarm.
Switch Function	802.1Q VLAN, link aggregation, flow control, storm control

Unicast / Multicast	Multicast filtering, IGMP Snooping, dynamic multicast, MAC information
Redundancy Technology	Ring, STP/RSTP
Troubleshooting	Ping
Time Management	SNTP Client, Time Zone Configuration
Interface	100M copper port: 10/100Base-T(X) self-adaption, RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/ MDI-X Autotunning 100M fiber port: 100Base-FX, SC connector CONSOLE port: CLI command line management port(RS-232), RJ45 Relay: support 2 relay alarm outputs, and adopt 2 5-pin 5.08mm pitch terminal blocks, relay occupies the right 2 pins, the current carrying capacity is 1A@30VDC or 0.3A@125VAC
Indicator	Power indicator, running indicator, alarm indicator, interface indicator
Switch Property	Transmission mode: store and forward MAC address: 16K Packet buffer size: 4Mbit Backplane bandwidth: 12.8Gbps Switch delay: <10μs
Power Supply	IES5100-24T-2LV, IES5100-22T2F-2LV, IES5100-20T4F-2LV, IES5100-24F-2LV ● Input voltage: 24VDC/48VDC (18~72VDC) ● Power supply quantity: dual power supply redundancy ● Connection method: 2 5-pin 5.08mm pitch terminal blocks (includes 3-pin power supply on the left side) ● Connection protection: non-polarity IES5100-24T-2HV, IES5100-22T2F-2HV, IES5100-20T4F-2HV, IES5100-24F-2HV ● Input voltage: 110VAC/DC, 220VAC/DC (85~264VAC/DC) ● Power supply quantity: dual power supply redundancy ● Connection method: 2 5-pin 5.08mm pitch terminal blocks (includes 3-pin power supply on the left side)
Power Consumption	**Model** / **No-load** / **Full-load** IES5100-24T-2LV / 4.5W@48VDC / 10.8W@48VDC IES5100-24T-2HV / 7.3W@220VAC / 11.7W@220VAC

	IES5100-22T2F-2LV	5.3W@48VDC	7.1W@48VD
	IES5100-22T2F-2HV	8.4W@220VAC	11.9W@220VAC
	IES5100-20T4F-2LV	6.6W@48VDC	8.6W@48VDC
	IES5100-20T4F-2HV	10.0W@220VAC	12.2W@220VAC
	IES5100-24F-2LV	28.4W@48VDC	29.7W@48VDC
	IES5100-24F-2HV	20.7W@220VAC	22W@220VAC
Working Environment	Operating temperature: -40~75℃ Storage temperature:-40~85℃ Relative humidity: 5%～95% (no condensation)		
Mechanical Structure	Housing: IP40 protection, metal Installation: 19-inch 1U rack mounting Dimension (W x H x D): 440mm×44mm×207mm (lugs are not included) Weight: ● IES5100-24T-2LV is 2.31kg ● IES5100-24T-2HV is 2.62kg ● IES5100-24F-2LV is 2.42kg ● IES5100-24F-2HV is 2.659kg		
Industrial Standard	IEC 61000-4-2 (ESD, electronic static discharge), Level 4 ● Contact discharge: ±8kV ● Air discharge: ± 15kV IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 4 ● Power supply: ±4kV ● Copper port: ±2kV ● Relay: ±4kV IEC 61000-4-5 (Surge), Level 4 ● Power supply: differential mode±2kV, common mode±4kV ● Copper port: differential mode±2kV, common mode±4kV ● Relay: differential mode±2kV, common mode±4kV Shock: IEC 60068-2-27 Free fall: IEC 60068-2-31 Vibration: IEC 60068-2-6		
Authentication	CE, FCC, RoHS		
Warranty	5 years		

Ordering Information

Model	100M Copper Port	100M Fiber Port	Power Supply
IES5100-24T-2LV-N	24	—	24VDC/48VDC (18~72VDC) Support dual power supply redundancy and non-polarity
IES5100-24T-2HV-N	24	—	110VAC/DC, 220VAC/DC 85~264VAC/DC, dual power supply redundancy
IES5100-22T2F-2LV-N	22	2	24VDC/48VDC (18~72VDC) Support dual power supply redundancy and non-polarity
IES5100-22T2F-2HV-N	22	2	110VAC/DC, 220VAC/DC 85~264VAC/DC, dual power supply redundancy
IES5100-20T4F-2LV-N	20	4	24VDC/48VDC (18~72VDC) Support dual power supply redundancy and non-polarity
IES5100-20T4F-2HV-N	20	4	110VAC/DC, 220VAC/DC 85~264VAC/DC, dual power supply redundancy
IES5100-24F-2LV-N	—	24	24VDC/48VDC (18~72VDC) Support dual power supply redundancy and non-polarity
IES5100-24F-2HV-N	—	24	110VAC/DC, 220VAC/DC 85~264VAC/DC, dual power supply redundancy