



ICS5400SL Series

19-inch 1U Rack Mounting

28-port Gigabit/10Gigabit Layer 3 Managed Industrial Ethernet Switch

- Support 24 Gigabit copper ports (optional PoE) and 4 10Gigabit+ slots
- Support MRP ring network, reconfiguration time < 200ms
- The maximum PoE power of the 48VDC products is 720W; the maximum PoE power of the 110/220VAC products is 360W
- Non-PoE DC products support 2 24/48VDC (18~72VDC) power supplies, dual power supply redundancy, support non-polarity; PoE products support 2 48VDC (44~55VDC), dual power supply redundancy, support anti-reverse connection
- Non-PoE AC products support 2 110/220VAC (85~264VAC) power supplies and dual power supply redundancy; PoE products support 1 110/220VAC (100~240VAC) power supply.
- Support -40~75°C wide operating temperature range
- Support IP40 protection grade (non-PoE)



Introduction

ICS5400SL series products are 28-port Gigabit/10Gigabit layer 3 managed industrial Ethernet switches. PoE power supply conforms to IEEE802.3af/at/bt protocol standard, and it can power device over Ethernet, thus decreasing the cable connection of powered devices. This series provides Gigabit copper port, Gigabit PoE copper port, 10Gigabit SFP+ slot, which can negotiate the port rate and duplex mode with the peer device through self-negotiation. Support 18~72VDC, 44~55VDC, 85~264VAC and 100~240VAC power supply schemes (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 Static Routing, RIP, VRRP, NAT, STP/RSTP/MSTP, EPRS, 802.1Q VLAN, QoS, DHCP Server, DHCP Client, IGMP Static Multicast, LLDP, Port Trunking, Port Mirroring, etc. It also possesses complete management functions, including Port Configuration, Port Statistics, Port IP Binding, Access Control, 802.1X Authentication, Network Diagnosis, Rapid Configuration, Online Upgrading and so on; and supports CLI, HTTP, HTTPS, Telnet, SSH and other access methods., Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

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. Hardware adopts fanless, low power consumption, wide temperature 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 applied in industrial fields such as smart cities, security, parks, and electronic police.

Features and Benefits

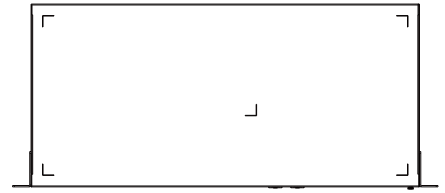
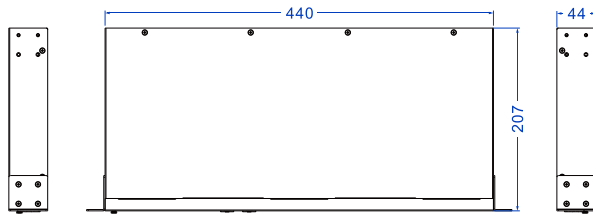
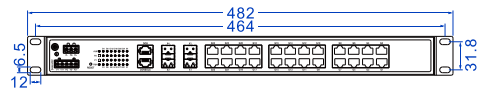
- ⊙ SNMPv1/v2c/v3 is used for network management of various levels
- ⊙ RMON can be used for efficient and flexible network monitoring
- ⊙ QoS supports real-time traffic classification and priority setting
- ⊙ LLDP can achieve automatic topology discovery, which is convenient for visual management
- ⊙ DHCP server and DHCP client could be used for allocating IP address of different strategies
- ⊙ DHCP Snooping can ensure DHCP client gets IP address from legal DHCP server
- ⊙ DHCP relay function can realize IP address, gateway, DNS configuration cross network segment
- ⊙ File management is convenient for the device rapid configuration and online upgrading
- ⊙ Log information and log server can record user operation, system failure, system

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- security and other information locally and remotely
- ⊙ User privilege classification configuration can set user privilege level
 - ⊙ ACL can enhance the flexibility and security of the network, supporting bidirectional ACL IN and OUT.
 - ⊙ SSH configuration and HTTPS configuration can improve device's management security and guarantee data access security
 - ⊙ Ring, MRP, STP/RSTP/MSTP can achieve network redundancy, preventing network storm
 - ⊙ EPRS function can realize link backup and improve the reliability of network
 - ⊙ Relay alarm is convenient for troubleshooting of construction site
 - ⊙ Storm suppression can restrain broadcast, unknown multicast and unicast
 - ⊙ VLAN is used for simplifying network planning
 - ⊙ Port Trunking and LACP can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
 - ⊙ IGMP/MLD Snooping can be used for filtering multicast traffic to save the network bandwidth
 - ⊙ IGMP/MLD can be used to manage and maintain multicast members
 - ⊙ ARP could be used for MAC address resolution
 - ⊙ VRRP, RIP/RIPng, ISIS, OSPF/OSPFv3 and BGP can realize dynamic routing configuration
 - ⊙ PIM-DM and PIM-SM can be used to create and maintain multicast routing table entries and realize multicast routing forwarding
 - ⊙ NAT maps private IP address to the legal IP address of external network, which can slow the consumption of IP address space
 - ⊙ PoE could power device over Ethernet, thus decreasing the cable connection of powered devices
 - ⊙ Loop detection could efficiently eliminate the influence caused by port loopback by detecting the existence of loopback
 - ⊙ IPDT can track IP device status and realize interaction with other applications
 - ⊙ Smart Link link backup, providing reliable and efficient backup and fast switching mechanism
 - ⊙ Network diagnosis and troubleshooting could be conducted via Ping, Traceroute, cable diagnosis, SFP DDMI
 - ⊙ Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging

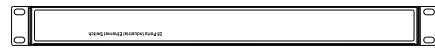
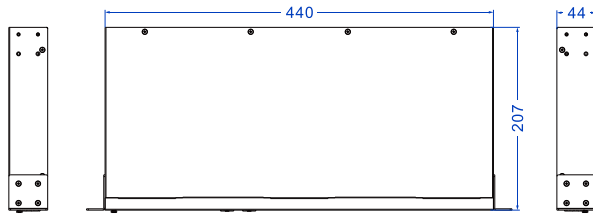
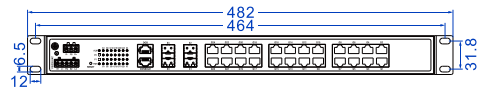
Dimension

Unit: mm

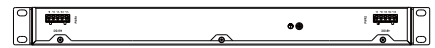
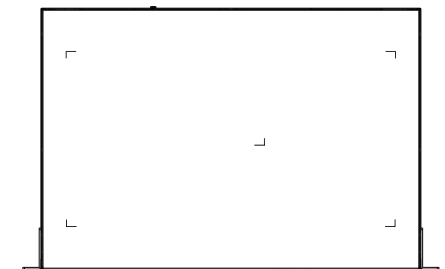
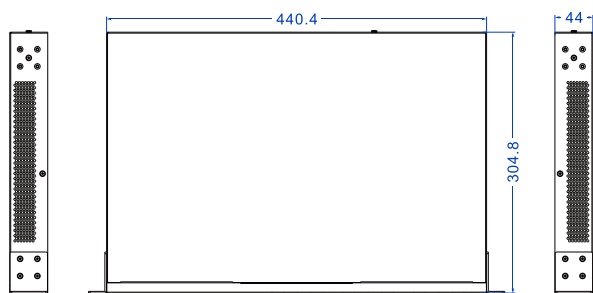
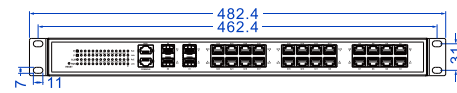
- ICS5400SL-24GT4XS-2LV



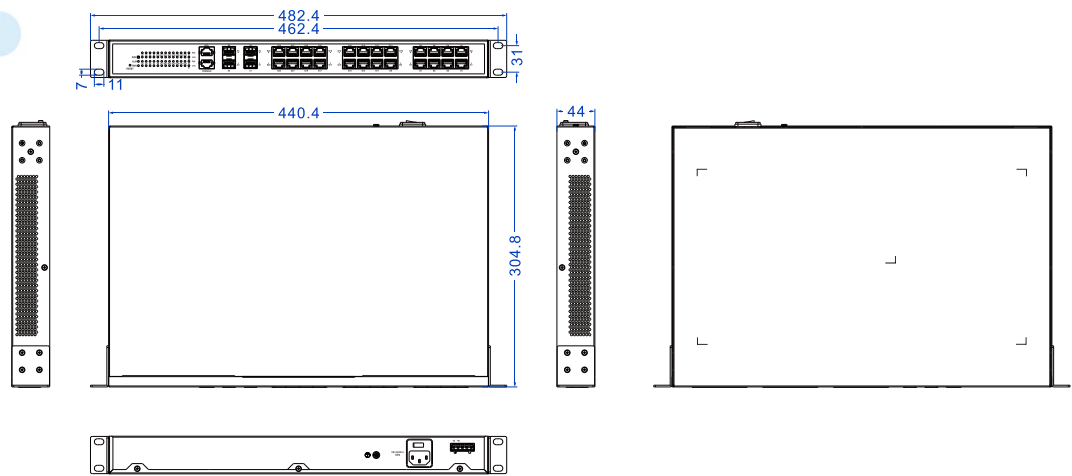
● ICS5400SL-24GT4XS-2HV



● ICS5400SL-24GP4XS-2LV



● ICS5400SL-24GP4XS-HV



Specification

<p>Standard & Protocol</p>	<p>IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3ab for 1000Base-T IEEE 802.3z for 1000Base-X IEEE 802.3ae for 10GBase-X IEEE 802.3x for Flow Control IEEE 802.1D for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol ITU-T G.8032 for ERPS IEEE 802.1Q for VLAN IEEE 802.1AB for LLDP IEEE 802.3ad for LACP IEEE 802.3af for PoE IEEE 802.3at for PoE+</p>
<p>Management</p>	<p>SNMP v1/v2c/v3 centralized managed equipment, RMON, Port Mirroring, LLDP, PoE, DHCP Server, DHCP Relay, port speed limit, port isolation, port statistics, file management, online upgrade, log information, Syslog server</p>
<p>Security</p>	<p>User privilege classification, ACL, SSH/HTTPS protocol authorization, link flapping protection, port loopback detection, access control, SNMP, RMON, IPDT, IPv6DT, Smart-Link, NAT, port alarm, temperature alarm, power alarm, network load alarm</p>
<p>Switch Function</p>	<p>802.1Q VLAN, MAC, static aggregation, LACP, ARP, storm suppression</p>
<p>Unicast / Multicast</p>	<p>IGMP-Snooping, MLD-Snooping, IGMP, MLD, PIM-SM, PIM-DM,</p>

	IPv6-PIM-SM, IPv6-PIM-DM
Redundancy Technology	Ring, MRP, STP/RSTP/MSTP, ERPS
Routing Technique	RIP, RIPng, OSPF, OSPFv3, ISIS, VRRP, IPv6 VRRP, BGP
Troubleshooting	Ping, Traceroute, Network Cable Diagnosis, DDMMI
Time Management	NTP Client, Time Zone Configuration

PoE	The maximum power of PoE port: 30W PoE power supply pins: 1 and 2 are positive, 3 and 6 are negative, 4, 5, 7 and 8 are reserved
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Interface	Gigabit copper port: 10/100/1000Base-T(X) self-adaption or forced mode, RJ45, Automatic Flow Control, Full/Half Duplex Mode self-adaption, MDI/MDI-X Autotuning, PoE (optional) 10Gigabit SFP+ slot: 10G Base-X self-adaption, 1G/2.5G forced mode, SFP+ slot Console port: CLI command line management port (RS-232), RJ45 OOB port: Out-of-Band Management Port, which could be used to configure WEB and upgrade software directly Relay (non-PoE): support 1 relay alarm output, and adopt 3-pin 5.08mm pitch terminal blocks. The current carrying capacity is 1A@30VDC or 0.3A@125VAC Relay (PoE): DC products support 2 relay alarm outputs, and AC products support 1 relay alarm output, adopt 5-pin 5.08mm pitch terminal blocks. Relay occupies 2 pins, the current carrying capacity is 1A@30VDC or 0.3A@125VAC
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Indicator	Power indicator, running indicator, alarm indicator, interface indicator, PoE indicator
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Switch Property	Transmission mode: store and forward MAC address: 16K Cache: 12Mbit Backplane bandwidth: 128Gbps Switch delay: <10μs
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Power Supply	ICS5400SL-24GT4XS-2LV: <ul style="list-style-type: none"> Power supply range: 24/48VDC (18~72VDC), dual power supply redundancy Connection mode: 5-pin 5.08mm pitch terminal blocks
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- Connection protection: support non-polarity

ICS5400SL-24GT4XS-2HV :

- Power supply range: 110/220VAC (85~264VAC), dual power supply redundancy
- Connection mode: 5-pin 5.08mm pitch terminal blocks

ICS5400SL-24GP4XS-2LV :

- Power supply range: 48VDC (44~55VDC), dual power supply redundancy
- Connection mode: 5-pin 5.08mm pitch terminal blocks
- Connection protection: support anti-reverse connection

ICS5400SL-24GP4XS-HV :

- Power supply range: 110/220VAC (100~240VAC), single power supply input
- Connection mode: AC power socket with switch

Power Consumption

ICS5400SL-24GT4XS-2LV :

- No-load at normal temperature: 7.6W@48VDC
- Full-load at normal temperature: 20.7W@48VDC
- No-load at high temperature: 9.8W@48VDC
- Full-load at high temperature: 22.9W@48VDC

ICS5400SL-24GT4XS-2HV :

- No-load at normal temperature: 7.1W@220VAC
- Full-load at normal temperature: 20.7W@220VAC
- No-load at high temperature: 8.8W@220VAC
- Full-load at high temperature: 22.6W@220VAC

ICS5400SL-24GP4XS-2LV :

- No-load at normal temperature: 9.12W@48VDC
- Full-load at normal temperature: 696W@48VDC (with PoE)
- No-load at high temperature: 10.58W@48VDC
- Full-load at high temperature: 698.4W@48VDC (with PoE)

ICS5400SL-24GP4XS-HV :

- No-load at normal temperature: 12.2W@220VAC
- Full-load at normal temperature: 332.4W@220VAC (with PoE)
- No-load at high temperature: 13.2W@220VAC
- Full-load at high temperature: 339.8W@220VAC (with PoE)

Working Environment

Operating temperature: -40~75°C

Storage temperature:-40~85°C

Relative humidity: 5%~95% (no condensation)

Mechanical Structure

housing: IP40 protection grade (non-PoE), IP30 protection grade (PoE), metal

Installation: 19-inch 1U rack mounting

Dimension (W x H x D):

- ICS5400SL-24GT4XS-2LV: 440mm×44mm×207mm (exclude lugs)
- ICS5400SL-24GT4XS-2HV: 440mm×44mm×207mm (exclude lugs)
- ICS5400SL-24GP4XS-2LV: 440.4mm×44mm×304.8mm (exclude lugs)
- ICS5400SL-24GP4XS-HV: 440.4mm×44mm×304.8mm (exclude lugs)

Weight:

- ICS5400SL-24GT4XS-2LV: 2.301kg
- ICS5400SL-24GT4XS-2HV: 2.535kg
- ICS5400SL-24GP4XS-2LV: 4.123kg
- ICS5400SL-24GP4XS-HV: 4.120kg

Industrial Standard (Non-PoE)

IEC 61000-4-2 (ESD, electronic static discharge), Level 4

- Air discharge: $\pm 15\text{kV}$
- Contact discharge: $\pm 8\text{kV}$

IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 4

- Power supply: $\pm 4\text{kV}$
- Copper port: $\pm 2\text{kV}$

IEC 61000-4-5 (Surge), Level 4+

- Power supply: differential mode $\pm 2\text{kV}$, common mode $\pm 6\text{kV}$
- Copper port: differential mode $\pm 2\text{kV}$, common mode $\pm 6\text{kV}$

Shock: IEC 60068-2-27

Free fall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Industrial Standard (PoE)

IEC 61000-4-2 (ESD, electrostatic discharge), Level 3

- Air discharge: $\pm 8\text{kV}$
- Contact discharge: $\pm 6\text{kV}$

IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3

- Power supply: $\pm 2\text{kV}$
- Copper port: $\pm 1\text{kV}$

ICS5400SL-24GP4XS-2LV:

	<p>IEC 61000-4-5 (Surge), Level 4+</p> <ul style="list-style-type: none"> ● Power supply: differential mode±2kV, common mode±6kV ● Copper port: differential mode±2kV, common mode±6kV <p>ICS5400SL-24GP4XS-HV:</p> <p>IEC 61000-4-5 (Surge), Level 3</p> <ul style="list-style-type: none"> ● Power supply: differential mode±1kV, common mode±2kV ● Copper port: differential mode±1kV, common mode±2kV <p>Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6</p>
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Authentication	CE, FCC, RoHS
Warranty	5 years

Ordering Information

Model	Gigabit RJ45 LAN Port		10Gigabit SFP+	PoE Power	Power Supply
	Non-PoE	PoE			
ICS5400SL-24GT4XS-2LV-N	24	—	4	—	2 24/48VDC (18~72VDC) Redundant power input
ICS5400SL-24GT4XS-2HV-N	24	—	4	—	2 110/220VAC (85~264VAC) Redundant power input
ICS5400SL-24GP4XS-2LV-N	—	24	4	720W	2 48VDC (44~55VDC) Redundant power input
ICS5400SL-24GP4XS-2HV-N	—	24	4	360W	1 110/220VAC (100~240VAC) Power input