

ALPHA BRIDGE LAYER 2 Switches (AS200/16/I2S)



Supports Max. 24-port
Gigabit RJ45 + 4-port
Gigabit SFP Lite.



Advanced Hardware
Architecture and Industry-
leading Port Density.



Carrier-Grade, High
Reliability.



Verified Service
characteristics, Complete
Security Mechanism.

Product Overview

The AS200/16/I2S is the highly reliable Layer 2+ managed industrial Ethernet switch with 16-port 10/100/1000-T RJ45 and 2-port 1G/2.5GBase-X SFP slots. It supports ERPS redundant network and the self-recovery mechanism is less than 20ms on full load which allows you to scheme a reliable Ethernet network by building a redundant ring topology as your back-up solution. It also supports IPv4/IPv6 static routing, DHCP server and robust Layer 2 management and secure function, which all making them ideal for large-scale industrial networks.

AS200/16/I2S is a high cost-effective easy-to-use device, which provides essential industrial Ethernet networking function, including wide range power input 12-58VDC, redundant power design with polarity reverse/over-voltage/over-current protection, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 75°C as well as high-level EMI/EMC capability. It is the best choice for heavy industrial factory, transportation, oil & gas, chemical, IP Surveillance and processing automation area where environmental conditions are harsh and critical.

Product Features

- 16*10/100/1000Base-T RJ45, 2*1G/2.5GBase-X SFP
- Redundant power DC 12-58V input with polarity reverse/over-voltage/over-current protection
- Support one digital output for relay alarm (terminal block Pin 5/6)
- Layer 3 features: Support IPv4/IPv6 static routing, DHCP server
- Support Layer 2 management function: VLAN/VLAN Classification/QinQ/STP, RSTP, MSTP/Port Mirroring/DHCP/Multicast/ACL/IGMP/QoS/LLDP/802.1X/Dying Gasp/SFP DDM/IPV6 management/Web/SNMP/Telnet/TFTP/Web upgrading
- Support G.8032 ERPS protocol, recovery time ≤20ms
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- IP40 fan-less and Din-rail hardware design
- Operation temperature: -40°C ~ +75°C

Product Specifications

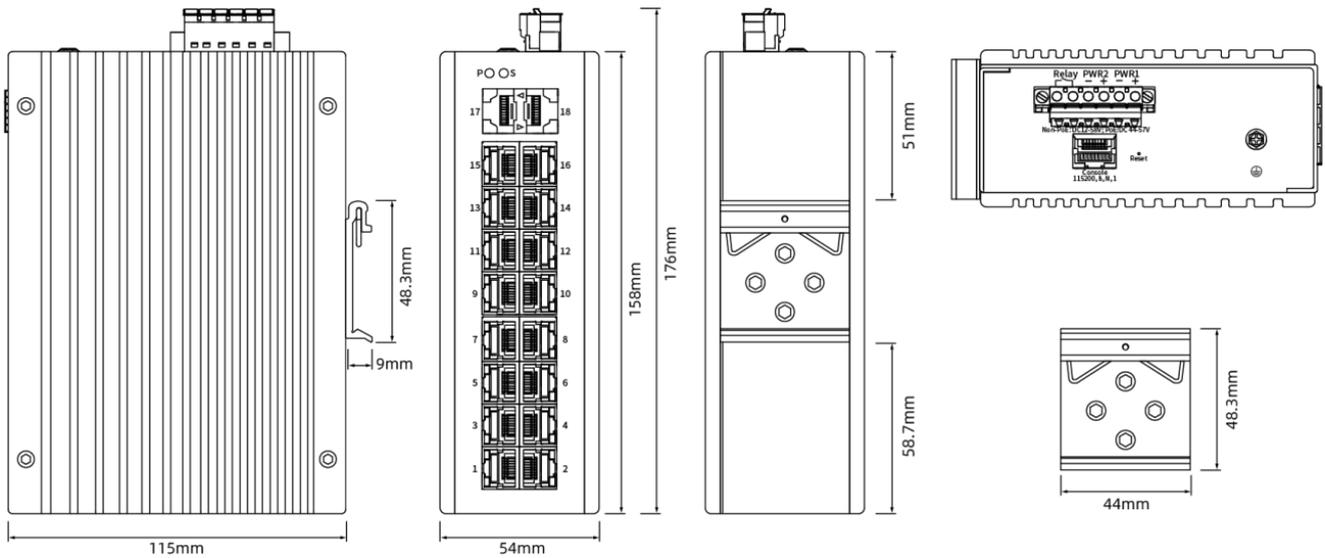
Model No.	AS200/16/12S	
Interface	Fiber ports	Copper RJ45 ports
	2	16
Ethernet	16*10/100/1000Base-T RJ45 2*1G/2.5GBase-X SFP	
Management port	1*RJ45 Console port (115200,8,N,1)	
Alarm port	One digital output for relay alarm alarm relay current carry ability:1A@24VDC	
Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z 1000Base-X Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1Q VLAN ITU-T G.8032 ERPS IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ad LACP	
LED Indicators		
P (Power indicator)	Off: the device is power off or failed	On: the device power on is normal
S (System status indicator)	Blinking: device initialization	On: device on normal operation
1-16 (Copper ports indicators) Green	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
1-16 (Copper Speed indicators) Yellow	Off: port on 10/100M	
	On: port on 1000M	
17-18 (Fiber ports indicators) Green	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
Power parameter		
Input voltage	12-58V DC, redundant power input	
Input current	1.3A Max	
Total power consumption	Full loading ≤15W	
Connector	Removable 6-pin terminal block, Pin 5-6 for relay alarm	
Reverse polarity protection	Support	
Over-voltage protection	Support	
Over-current protection	Support	
Layer 2 functions		
Port aggregation	Support GE port aggregation Support 2.5GE aggregation Support static aggregation Support LACP dynamic aggregation Up to 64 aggregation groups and up to 8 ports per group	
Port features	Port mirroring (One-to-One, Many-to-One) Support loop detection (Port-based; VLAN-based) Support broadcast storm suppression (broadcast; unknown multicast; unknown unicast) Support static Mac-address management Support dynamic	

Mac-address table management	Mac-address Management Support filtering Mac-address Support MAC limit based on port and VLAN Support MAC flapping based on port and VLAN
VLAN	Support access mode Support trunk mode Support hybrid mode
VLAN classification	Mac Based VLAN IP Based VLAN Protocol Based VLAN
GVRP	Normal mode Fixed mode Forbidden mode
QinQ	Port-based QinQ VLAN-based QinQ (VLAN-stacking; VLAN-mapping) Flow-based QinQ
LLDP	LLDP (Link Layer Discovery Protocol)
Ring network protocol	Support IEEE802.1D-STP Support IEEE802.1W-RSTP Support IEEE802.1S-MSTP Support G.8032 ERPS protocol, single ring, sub-Ring and major ring Recovery time $\leq 20\text{ms}$
L2 Multicast	
IGMP snooping	Support IGMP snooping
Group address	Support group address
Security functions	
Connector	Removable 6-pin terminal block, Pin 5-6 for relay alarm
Reverse polarity protection	Support
Over-voltage protection	Support
Over-current protection	Support
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Group address	Support group address
Security functions	
Telnet server	Support telnet server
Telnet client	Support telnet client
SSH server	Support SSH server
TACACS	Support TACACS (the terminal access controller accesses the control system)
sflow	Support network traffic analysis
TFTP	Support TFTP Client
Layer 3 functions	
ARP	ARP table aging
DHCP server	
IPv4 / IPv6	static routing
Switching features	
Switching capacity	42Gbps
Packet forwarding rate	62.5Mpps
MAC address table	16K
VLAN	4K
Buffer	12Mbit
Forwarding delay	<5us
Jumbo Frame	Support 10Kbytes
MDX/MIDX	Support
Watchdog	Support
Mechanical structure	
Case protection	IP40
Installation method	Din-rail
Dimension(W*D*H)mm	54*115*158mm
Weight	1.45 kg
Operating environment	
Operating temperature	-40°C~+75°C
Storage/transportation temperature	-40°C~+85°C
Relative humidity	Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH
Industrial Standard	
EMS	Surge protection of power: IEC 61000-4-5 6KV/4KV (8/20us) Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us) RS: IEC 61000-4-3 80 MHz-1 GHz: 10 V/m EFT: IEC 61000-4-4 4K/2K CS: IEC 61000-4-6 10V ESD: IEC 61000-4-2 Contact: 8K; Air: 15K

EMI	FCC Part 15B Class A
Shock	IEC 60068-2-27
Free fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Certification	CCC/CE/UKCA/RoHS/REACH/FCC
MTBF	> 200,000 hours

Structure diagram



Ordering Information

Item	Description
AS200/16/12S	24-port Gigabit RJ45 + 4-port Gigabit SFP Lite-L3 Managed Industrial Switch; dual industrial-grade DC12~55V redundant power inputs; operating temperature: -40~75°C; lightning protection level of 6KV; IP40; DIN-rail installation.

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