
# IES6300-16GT2GS2HS Series

## DIN-Rail Mounting

## 20-Port Full Gigabit Layer 2 Managed Industrial Ethernet Switch

- Support 16 Gigabit copper ports, 2 Gigabit SFP slots, 2 2.5G SFP slots
- Adopt Ring patented technology, support single ring, coupling ring, chain, Dual-homing ring network function, automatic recovery time of network failure < 20ms
- Support multiple network protocols and industry standards, such as IPv6, STP/RSTP/MSTP, VLAN, QoS, LACP, DHCP, IGMP Snooping, LLDP, ACL, SNMP, MEP and MODBUS.
- Optional AC power supply, dual power supply anti-reverse connection, the power supply range is 85~264VAC/D
- Optional DC power supply, dual power supply anti-reverse connection, the power supply range is 24~48VDC
- Support -40~75℃ wide operating temperature range

Industrial Grade RPS IP40

ROBUST INDUSTRIAL CONNECTION

# Introduction

IES6300-16GT2GS2HS series products are 20-port full Gigabit layer 2 managed industrial Ethernet switches. This product provides multiple interfaces including Gigabit copper ports, 100M/1G SFP slots, and 100M/1G/2.5G SFP slots. It supports DC/AC power supply, and adopts DIN-Rail mounting to meet the requirements of different application scenes.

The network management system supports a variety of network protocols and industry standards, such as IPv6, Ring, STP/RSTP/MSTP, DHCP Server/Snooping/Relay, VLAN, QoS, IGMP Snooping, LLDP, Port Trunking and Port Mirroring. It possesses complete management functions and supports Port Configuration, NAS, ACL, Network Diagnosis, Online Upgrade, etc. CLI, WEB, TELNET, SSH, SNMP and other access methods can be supported. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

The DC power supply has two independent power supply circuits which can ensure the normal operation of the device when one power supply fails. The design of DIP switch could implement device factory setting recovery. When DC 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 for the industrial scene environment with harsh requirements for EMC. It can be widely used in AP coverage, railway transportation, smart city, safe city, new energy, smart grid, intelligent manufacturing and other industrial fields.

# 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
- Alarm log and log server can record user operation, system failure, system security and other information locally and remotely
- User privilege classification configuration can set user privilege level
- SSH configuration and HTTPS configuration can improve device’s management

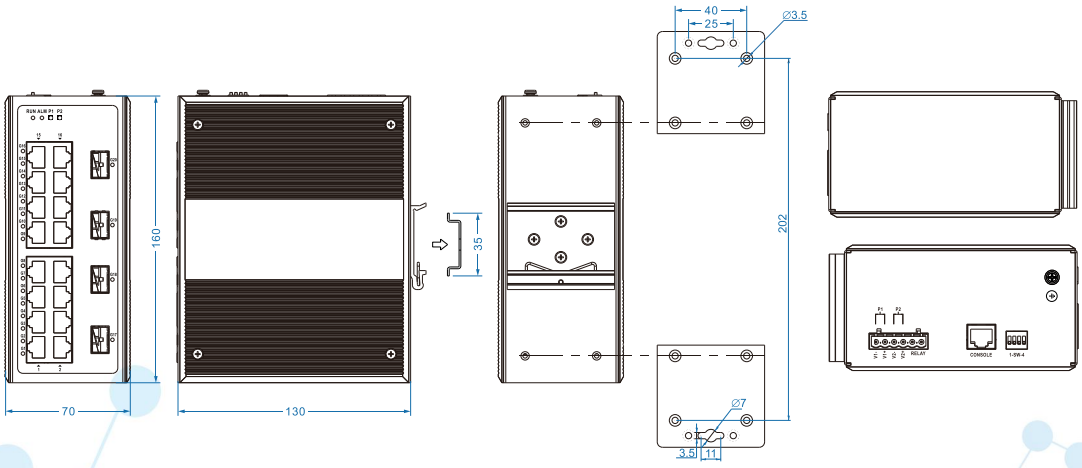
security and guarantee data access security

- Support NAS network access service and provide security assurance for multiple services
- MEP function can determine the scope and boundary of maintenance domain
- EVC configuration function can realize the connection between the two points of Ethernet service
- Ring and STP/RSTP/MSTP can achieve network redundancy, preventing network storm
- 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 Snooping can be used for filtering multicast traffic to save the network bandwidth
- Support Modbus TCP protocol, convenient for various integrated systems to monitor device status
- Support DDM (digital diagnostic monitoring) function, which can monitor the optical power, temperature and other real-time parameters of SFP fiber module with DDM function, facilitating the link default diagnosis of optical fiber
- Network diagnosis and troubleshooting could be conducted via Ping, Ping6 and cable detection
- Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging
- Support both active and standby systems. If the main system fails during system startup, the standby system can be started automatically

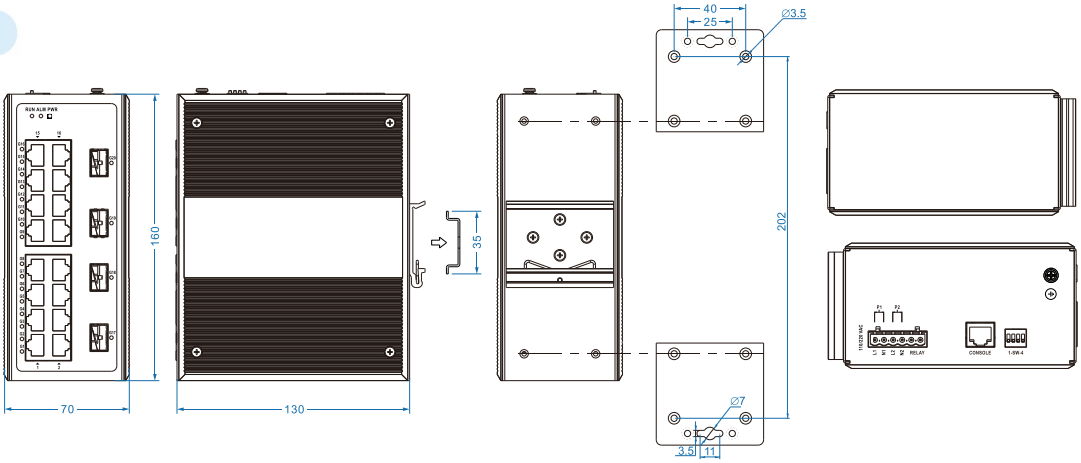
# Dimension

Unit: mm

- IES6300-16GT2GS2HS-2P48




- IES6300-16GT2GS2HS-2P220




# Specification

| | |
|---|---|
| Standard & Protocol | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-TX<br>IEEE 802.3ab for 1000Base-T<br>IEEE 802.3z for 1000Base-X<br>IEEE 802.3x for Flow Control<br>IEEE 802.1D for Spanning Tree Protocol<br>IEEE 802.1w for Rapid Spanning Tree Protocol<br>IEEE 802.1s for Multiple Spanning Tree Protocol<br>IEEE 802.1Q for VLAN<br>IEEE 802.1p for CoS<br>IEEE 802.1AB for LLDP<br>IEEE 802.3ad for LACP<br>GB/T 19582 for Modbus TCP |
| Management | SNMP v1/v2c/v3 Centralized Management of Equipment, Port Mirroring, QoS, DHCP Server, DHCP Relay, Static MAC Address, LLDP, LLDP-MED, Storm Suppression, User Password, Login Method, File Management, Log Management, Port Statistics, MEP, Modbus |
| Security | User Privilege Classification, Authentication Method Configuration, SSH Configuration, HTTPS Configuration, Access Control, SNMP, RMON, Port Limit Control, Port Security, NAS, ACL, Ethernet Services, RADIUS Server Authentication, TACACS + Server Authentication, Port Alarm, DC Power Supply Alarm, Loop Protection, DHCP Snooping |
| Switch Function | 802.1Q VLAN, Static Aggregation, LACP |
| Unicast / Multicast | IGMP Snooping, Unicast MAC |

| | |
|---|---|
| Redundancy Technology | Ring, STP/RSTP/MSTP |
| Troubleshooting | Ping, Ping6, Cable Detection, DDMI |
| Time Management | NTP client/server, time zone configuration |
| Interface | Gigabit copper port: 10/100/1000Base-T(X) self-adaption, RJ45, full/half duplex, MDI/MDI-X self-adaption<br>Gigabit SFP Slot : 100/1000Base-X self-adaption or forced mode, SFP slot<br>2.5G SFP Slot: 100/1000/2.5G Base-X self-adaption or forced mode, SFP slot<br>Console port: CLI command line management port (RS-232), RJ45<br>Alarm port: 6-pin 5.08mm pitch wiring terminals (relay occupies 2 pins), supporting 1 relay alarm output, DC product current load capacity is 1A@30VDC or 0.3A@125VAC, and the AC product current load capacity is 2A@250VAC or 2A@220VDC |
| Indicator | Running Indicator, Alarm Indicator, Power Supply Indicator, Interface Indicator |
| Switch Property | Transmission mode: store and forward<br>MAC address: 8K<br>Packet buffer size: 4Mbit<br>Backplane bandwidth: 58G<br>Switch delay: <10μs |
| Power Supply | DC power supply: 24/48VDC (24~48VDC), dual power supply<br>AC power supply: 85~264VAC/DC, dual power supply<br>Connection method: 6-pin 5.08mm pitch terminal blocks (includes 4-pin power supply on the left side), anti-reverse connection |
| Power Consumption | IES6300-16GT2GS2HS-2P48<br>● No-load: 9.0W@48VDC<br>● Full-load: 17.1W@48VDC<br><br>IES6300-16GT2GS2HS-2P220<br>● No-load: 7.2W@220VDC<br>● Full-load: 16.9W@220VDC |
| Working Environment | Operating temperature: -40~75℃ |

| | |
|---|---|
| | Storage temperature:-40~85℃<br>Relative humidity: 5%~95% (no condensation) |
| Mechanical Structure | Housing: IP40 protection, metal<br>Installation: DIN-Rail mounting<br>Dimension (W x H x D): 79mm×150mm×135mm |
| Industrial Standard | IEC 61000-4-2 (ESD, electrostatic discharge), Level 3<br>● Contact discharge: ±6kV<br>● Air discharge: ±8kV<br><br>IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3<br>● DC power supply: ±2kV<br>● Copper port: ±2kV<br>● Relay: ±2kV<br><br>IEC 61000-4-5 (Surge), Level 3<br>● DC power supply: differential mode±1kV, common mode±2kV<br>● Copper port: differential mode±1kV, common mode±2kV<br><br>Insulation strength: 500VAC, < 10mA<br>Insulation resistance: ≥100MΩ<br>Shock: IEC 60068-2-27<br>Free fall: IEC 60068-2-32<br>Vibration: IEC 60068-2-6 |
| Authentication | CE, FCC, RoHS |
| Warranty | 5 years |

# Ordering Information

| Model | Gigabit Copper Port | Gigabit SFP | 2.5GSFP | Power Supply |
|---|---|---|---|---|
| IES6300-16GT2GS2HS-2P48-N | 16 | 2 | 2 | 24/48VDC dual power supply |
| IES6300-16GT2GS2HS-2P220-N | 16 | 2 | 2 | 85~264VAC/DC dual power supply |