IES615 Series

DIN-Rail Mounting or Wall Mounting
Layer 2 Managed Industrial Ethernet Switch with 2 Serial Ports

- Support 2 serial ports, 5 100M fiber or copper ports optional
- Adopt SW-Ring patent technology, support single ring, coupling ring, chain, Dual-homing, automatic recovery time of network failure < 20ms
- Support redundant 12~48VDC power supply input, non-polarity, reverse connection protection
- Support – 40~75℃ wide operating temperature range

CE   FC   RoHS   SW-Ring   <20ms RECOVERY   Industrial Grade   RPS

Introduction

IES615 series are layer 2 managed industrial Ethernet switches with 2 serial ports and 5 Ethernet ports. This series include six types of products and provide multiple ports like 100M fiber and copper ports, RS-232 and RS-485. They also support DIN-Rail mounting and wall mounting, which can meet the requirements of different application scenes.

Network management system supports various network protocols and industrial standards, such as 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. Each serial port supports 4 TCP or UDP session connections and multiple operating modes like TCP server TCP Client，UDP. Moreover, it supports CLI, WEB, Telnet, SNMP and other access modes. It can provide users with good experience via friendly design of network management system interface, simple and convenient operation.

DIP switch can instantly restore factory defaults and achieve product upgrading. When power supply or port has link failure, 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, railway transportation, smart city, safe 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
- File management is convenient for rapid configuration and online upgrade of the device
- Port statistics can be used for the port real time traffic statistics
- User password can conduct user hierarchical management to improve the device administrative security
- Relay alarm is convenient for troubleshooting of construction site
- VLAN can simplify the network planning
- Port trunking can increase network bandwidth and the reliability of network connection to achieve optimal bandwidth utilization
- Bandwidth management and flow control can reasonably distribute network bandwidth, preventing unpredictable network status
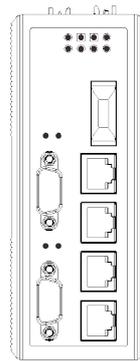- Static multicast can be used for filtering multicast traffic to save the network bandwidth

- ⊙ SW-Ring and RSTP can achieve network redundancy, preventing network storm
- ⊙ Support multiple operating modes of serial port: TCP Server, TCP Client, UDP, TCP auto, Realcom, advanced TCP Server and advanced UDP

Dimension
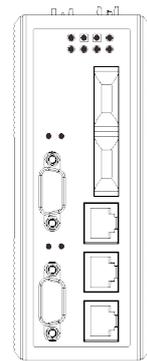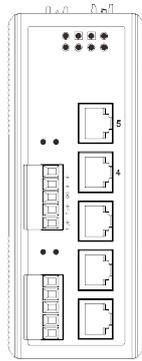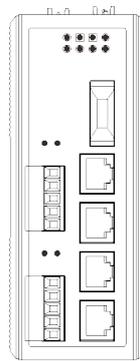
Unit:mm
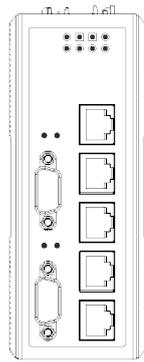
IES615-2D(RS-232)   IES615-1F-2D(RS-232)   IES615-2F-2D(RS-232)
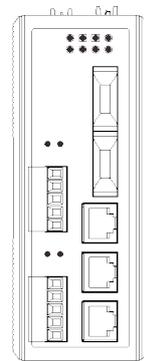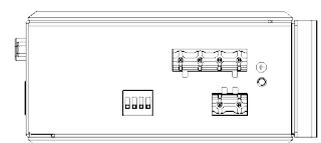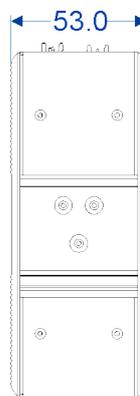
IES615-2DI(RS-485)   IES615-1F-2DI(RS-485)   IES615-2F-2DI(RS-485)

105.0

136.0

53.0

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 802.1w for Rapid Spanning Tree Protocol IEEE 802.1Q for VLAN IEEE 802.1p for CoS
Management	Console/Telnet/WEB Management, SNMP v1/v2c Centralized Management of Equipment, Port Mirroring, QoS, File Management, Port Statistics
Security	Classification of User Permissions, Relay Alarm (Port Alarm and Power Supply Alarm)
Switch Function	802.1Q Vlan, Static Port Aggregation, Bandwidth Management, Flow Control
Unicast / Multicast	Static Multicast
Redundancy Protocol	SW-Ring, RSTP
Serial Port Server Function	2 serial port servers, each one supports 4 TCP or UDP session connections. Multiple operating modes: TCP Server, TCP Client, UDP, TCP auto, Realcom, advanced TCP Server and advanced UDP
Interface	Copper port: 10/100Base-T(X)RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning Fiber port: 100Base-FX 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 1A@24VDC or 0.5A@120VAC
Serial Port	RS-232 signal: TXD, RXD, RTS, CTS, DTR, DSR, GND RS-422 signal: T+, T-, R+, R-, GND RS-485 signal: D+, D-, GND Check bit: None, Even, Odd, Space, Mark Data bit: 5bit, 6bit, 7bit, 8bit Stop bit: 1bit, 1.5bit, 2bit Baud rate: 300-115200bps Interface form: RS-232 port DB9 male connector

	RS-485/422 port 5-pin terminal blocks Load capacity: RS-485/422 port supports 32-node polling environment (128-node could be customized) Direction control: RS-485 adopts automatic data flow control technology RS-232 port protection: electrostatic protection 15kV RS-485/422 port protection: isolation voltage 2kV, electrostatic protection 15kV
LED Indicator	Running Indicator, Port Indicator, Power Supply Indicator, Alarm Indicator
Switch Property	Transmission mode: store and forward MAC address: 2K Packet buffer size: 0.5Mbit Backplane bandwidth: 1.2G Switch time delay: <15µs
Power Requirement	12~48VDC, 4-pin 7.62mm pitch terminal blocks Dual power supply redundancy, non-polarity, reverse connection protection Support built-in 3.0A over-current protection

Power Consumption

Model	No-load (@24VDC)	Full-load (@24VDC)
IES615-2D(RS-232)	0.84W	1.54W
IES615-1F-2D(RS-232)	1.80W	2.40W
IES615-2F-2D(RS-232)	2.50W	3.00W
IES615-2DI(RS-485)	1.22W	1.90W
IES615-1F-2DI(RS-485)	2.10W	2.60W
IES615-2F-2DI(RS-485)	3.00W	3.50W

Environmental Limit	Operating temperature range: -40~75℃ Storage temperature range: -40~85℃ Relative humidity: 5%～95%（no condensation）
Physical Characteristic	Housing: IP30 protection, metal Installation: DIN-Rail mounting or wall mounting Dimension (W x H x D): 53mm×136mm×105mm
Industrial Standard	IEC 61000-4-2 (ESD), Level 4 ● Air discharge: ±15kV ● Contact discharge: ±8kV IEC 61000-4-3(RS), Level 3, 10v

IEC 61000-4-4 (EFT), Level 4

- Power supply: ±4kV
- Ethernet port: ±2kV
- Relay: ±4kV

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

- Power supply /Relay: common mode±4kV, differential mode±2kV
- Ethernet port: ±4kV；

IEC 61000-4-6(CS), Level 3, 10v

Shock: IEC60068-2-27

Free fall: IEC60068-2-23

Vibration: IES 60068-2-6

Certification	CE, FCC, RoHS
Warranty	5 years

Ordering Information

Available Models	100M Fiber Port	100M Copper Port	RS-232	RS-485/422(with isolation)	Power Supply Range
IES615-2D(RS-232)	—	5	2	—	12~48VDC dual power supply
IES615-1F-2D(RS-232)	1	4	2	—	
IES615-2F-2D(RS-232)	2	3	2	—	
IES615-2DI(RS-485)	—	5	—	2	
IES615-1F-2DI(RS-485)	1	4	—	2	
IES615-2F-2DI(RS-485)	2	3	—	2	