



## IES618-4D Series

DIN-Rail Mounting

Layer 2 Managed Industrial Ethernet Switch with 4 Serial Ports

- Support 4 serial ports, 4 100M copper ports, 4 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, nonpolarity, reverse polarity protection
- Support -40~75°C wide operating temperature range



## Introduction

IES618-4D series are layer 2 managed industrial Ethernet switches with 4 serial ports. This series include six types of products and provide 100M copper port, 100M fiber port, RS-232, RS-485 ports, which can meet the requirements of different application scenes.

Network management system supports various network protocols and industrial standards, such as STP/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, TCP Server and other serial port operating modes. 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 occurs 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, rail transit, smart city, safety city, new energy, aerospace, intelligent manufacturing, military project and other industrial fields.

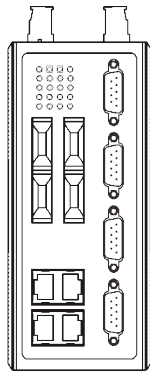
## Features and Benefits

- ⊙ 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
- ⊙ Storm suppression can restrain broadcast, unknown multicast and unknown unicast
- ⊙ 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

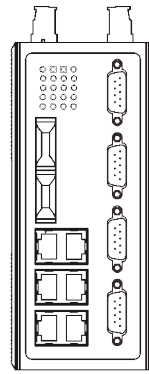
- ◎ SW-Ring and STP/RSTP can achieve network redundancy, preventing network storm
- ◎ Support multiple serial port operating mode: TCP Server, TCP Client, UDP, TCP auto, Realcom, advanced TCP Server and advanced UDP

## Dimension

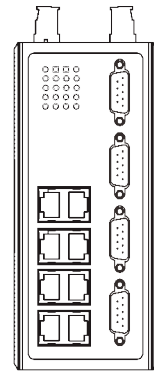
Unit:mm



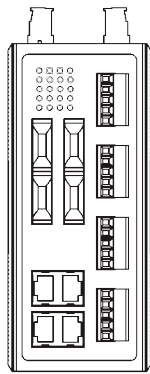
IES618-4F-4D(RS-232)



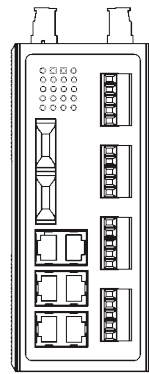
IES618-2F-4D(RS-232)



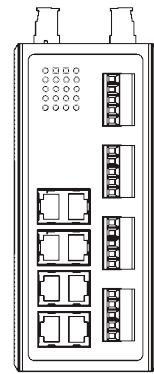
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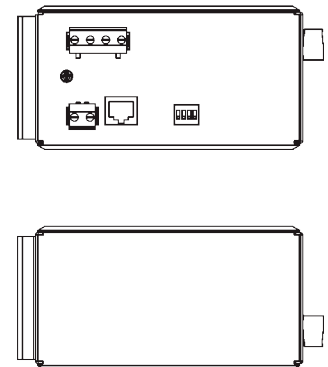
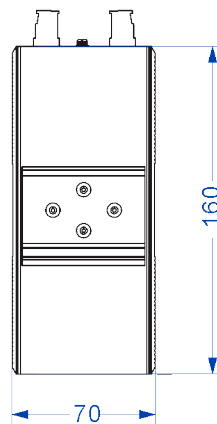
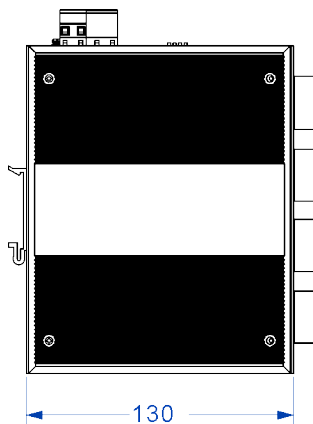
IES618-4F-4DI(RS-485)



IES618-2F-4DI(RS-485)



IES618-4DI(RS-485)



# Specification

<p><b>Standard &amp; Protocol</b></p>	<p>IEEE 802.3 for 10Base-T                  IEEE 802.3u for 100Base-TX and 100Base-FX                  IEEE 802.3x for Flow Control                  IEEE 802.1D-2004 for Spanning Tree Protocol                  IEEE 802.1w for Rapid Spanning Tree Protocol                  IEEE 802.1Q for VLAN                  IEEE 802.1p for CoS</p>
<p><b>Management</b></p>	<p>Console/Telnet/WEB Management, SNMP v1/v2c Centralized Management of Equipment, Port Mirroring, QoS, File Management, Port Statistics</p>
<p><b>Security</b></p>	<p>Classification of User Permissions, Relay Alarm (Port Alarm and Power Supply Alarm)</p>
<p><b>Switch Function</b></p>	<p>802.1Q Vlan, Static Port Aggregation, Bandwidth Management, Flow Control</p>
<p><b>Unicast / Multicast</b></p>	<p>Static Multicast</p>
<p><b>Redundancy Protocol</b></p>	<p>SW-Ring, STP/RSTP</p>
<p><b>Serial Device Server Function</b></p>	<p>4 serial device 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</p>
<p><b>Interface</b></p>	<p>Copper port: 10/100Base-T(X)RJ45, Automatic Flow Control, Full/half Duplex Mode, MDI/MDI-X Autotuning                  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</p>
<p><b>Serial Port</b></p>	<p>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                  Baud rate: 300-115200bps                  Interface type: DB9 male of RS-232                  5-pin terminal blocks of RS-485/422                  Load capacity: RS-485/422 supports 32 nodes polling environment (customizable 128 points)                  Directional control: RS-485 adopts automatic data flow control</p>

	<p>technology</p> <p>RS-232 interface protection: electrostatic protection 15kV</p> <p>RS-485/422 interface protection: isolation voltage 2kV, electrostatic protection 15kV</p>																					
LED Indicator	Running Indicator, Port Indicator, Power Supply Indicator, Alarm Indicator																					
Switch Property	<p>Transmission mode: store and forward</p> <p>MAC address: 2K</p> <p>Packet buffer size: 1Mbit</p> <p>Backplane bandwidth: 2G</p> <p>Switch time delay: &lt; 10μs</p>																					
Power Requirement	12~48VDC, 4-pin 7.62mm pitch terminal blocks, dual power supply redundancy, nonpolarity, reverse polarity protection support built-in 4.0A overcurrent protection																					
Power Consumption	<table border="1"> <thead> <tr> <th>Model</th> <th>No-load (@24VDC)</th> <th>Full-load (@24VDC)</th> </tr> </thead> <tbody> <tr> <td>IES618-4D(RS-232)</td> <td>4.8W</td> <td>6.9W</td> </tr> <tr> <td>IES618-2F-4D(RS-232)</td> <td>4.8W</td> <td>6.9W</td> </tr> <tr> <td>IES618-4F-4D(RS-232)</td> <td>4.75W</td> <td>6.14W</td> </tr> <tr> <td>IES618-4DI(RS-485)</td> <td>1.8W</td> <td>3.9W</td> </tr> <tr> <td>IES618-2F-4DI(RS-485)</td> <td>3.58W</td> <td>5.35W</td> </tr> <tr> <td>IES618-4F-4DI(RS-485)</td> <td>4.8W</td> <td>6.9W</td> </tr> </tbody> </table>	Model	No-load (@24VDC)	Full-load (@24VDC)	IES618-4D(RS-232)	4.8W	6.9W	IES618-2F-4D(RS-232)	4.8W	6.9W	IES618-4F-4D(RS-232)	4.75W	6.14W	IES618-4DI(RS-485)	1.8W	3.9W	IES618-2F-4DI(RS-485)	3.58W	5.35W	IES618-4F-4DI(RS-485)	4.8W	6.9W
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Environmental Limit	<p>Operating temperature range: -40~75°C</p> <p>Storage temperature range: -40~85°C</p> <p>Relative humidity: 5% ~ 95% (no condensation)</p>																					
Physical Characteristic	<p>Housing: IP40 protection, metal</p> <p>Installation: DIN-Rail or wall mounting</p> <p>Dimension (W x H x D): 70mm×160mm×130mm</p>																					
Industrial Standard	<p>EMI: FCC Part 15, CISPR (EN55022) class A</p> <p>EMS: IEC61000-4-2 (ESD), Level 4</p> <p>IEC61000-4-3(RS), Level 3</p> <p>IEC61000-4-4 (EFT), Level 4</p> <p>IEC61000-4-5 (Surge), Level 4</p> <p>IEC61000-4-6(CS), Level 3</p> <p>IEC61000-4-8(PFM), Level 5</p> <p>Shock: IEC 60068-2-27</p> <p>Free fall: IEC 60068-2-32</p> <p>Vibration: IES 60068-2-6</p>																					
Certification	CE, FCC, RoHS																					
Warranty	5 years																					

## Ordering Information

Available Models	100M Fiber Port	100M Copper Port	RS-232	RS-485 (with isolation function)	Power Supply Range
IES618-4D(RS-232)	—	8	4	—	12~48VDC dual power supply
IES618-2F-4D(RS-232)	2	6	4	—	
IES618-4F-4D(RS-232)	4	4	4	—	
IES618-4DI(RS-485)	—	8	—	4	
IES618-2F-4DI(RS-485)	2	6	—	4	
IES618-4F-4DI(RS-485)	4	4	—	4	



Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Song Bai Road, Nanshan District, Shenzhen, 518108, China

TEL.: +86-755-26702668 ext 835 FAX: +86-755-26703485

E-mail: [ics@3onedata.com](mailto:ics@3onedata.com)

Website: [www.3onedata.com](http://www.3onedata.com)

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