



## MES600 Series

DIN-Rail Mounting

100M Layer 2 Managed Electricity Industrial Ethernet Switch

- Support up to 4 100M fiber ports, 4 100M copper ports, 4 optional 3IN1 serial ports
- Adopt SW-Ring patent technology, support single ring, coupling ring, chain ring, Dual-homing ring network function, automatic recovery time of network failure < 20ms
- Support dual power supply inputs, input voltage: 12~48VDC
- Support -40~85°C wide operating temperature range



Industrial Grade



## Introduction

MES600 series are 100M layer 2 managed industrial Ethernet switches. This series have two types of products, and the products provide 4 100M copper ports and 4 100M fiber ports and 4 optional serial ports. They adopt DIN-Rail mounting, which can meet the requirements of different scenes.

Network management system supports various network protocols and industrial standards, such as STP/RSTP, 802.1Q VLAN, QoS, LLDP, 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, and supports CLI, WEB, Telnet, SNMP and other access methods. It can provide users with good experience with friendly design of network management system interface, simple and convenient operation.

They are designed to conform to the industrial standards of IEC61850 and IEEE1613. The input power supply is two independent power supply circuits which can ensure the normal operation of the device when one power supply fails. The DIP switch could achieve device rebooting and 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 is designed for power industry and can be widely used in the controller layer and process layer network of substations.

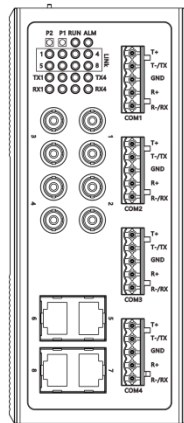
## Features and Benefits

- ⦿ 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
- ⦿ LLDP can achieve automatic topology discovery, which is convenient for visual management
- ⦿ DHCP sever and DHCP client could be used for allocating IP address of different strategies
- ⦿ File management is convenient for rapid configuration and online upgrade of the device
- ⦿ Log management records boot information, operation information and connection information
- ⦿ 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

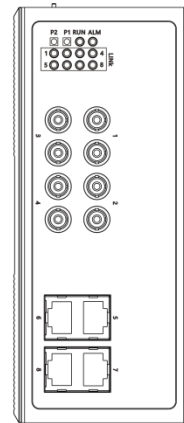
- ⦿ MAC port locking could enhance the flexibility and security of network
- ⦿ E-mail alarm is convenient for discovering faults in time during remote management
- ⦿ Relay alarm is convenient for troubleshooting of construction site
- ⦿ Storm suppression can restrain broadcast, unknown multicast and unknown unicast
- ⦿ VLAN can simplify the network planning
- ⦿ Port trunking and LACP 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
- ⦿ GMRP and 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
- ⦿ (Optional) support multiple operating modes of serial port: TCP Server, TCP Client, UDP, TCP auto, Realcom, advanced TCP Server and advanced UDP

## Dimension

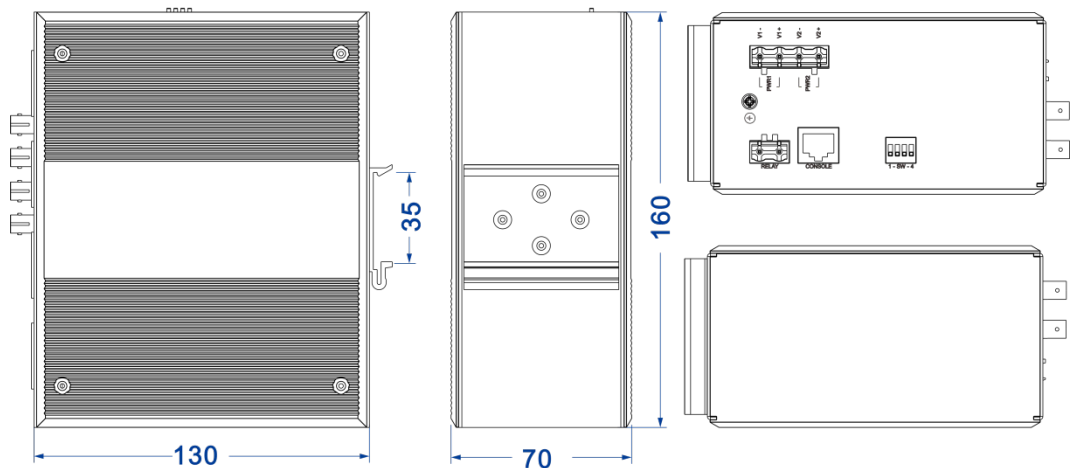
Unit:mm



MES600-4T4F-4D



MES600-4T4F



# Specification

<b>Standard &amp; Protocol</b>	<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 for Spanning Tree Protocol                  IEEE 802.1w for Rapid Spanning Tree Protocol                  IEEE 802.1Q for VLAN                  IEEE 802.1p for CoS                  IEEE 802.1AB for LLDP</p>
<b>Management</b>	<p>SNMP v1/v2c Centralized Management of Equipment, Port Mirroring, QoS, LLDP, DHCP Server, DHCP Client, File Management, Port Statistics</p>
<b>Security</b>	<p>Classification of User Permissions, Port Alarm, Power Supply Alarm, E-mail Alarm</p>
<b>Switch Function</b>	<p>802.1Q Vlan, Static Port Aggregation, Bandwidth Management, Flow Control</p>
<b>Unicast / Multicast</b>	<p>Static Multicast, GMRP, IGMP-Snooping</p>
<b>Redundancy Protocol</b>	<p>SW-Ring, STP/RSTP</p>
<b>Time Management</b>	<p>Sntp</p>
<b>Interface</b>	<p>100M copper port: 10/100Base-T(X), RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotuning                  100M fiber port: 100Base-FX, SC/ST/FC optional                  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 is 1A@24VDC or 0.5A@120VAC</p>
<b>Serial Port</b>	<p>RS-232 signal: TXD, RXD, 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: 5-pin 5.08mm pitch terminal blocks                  Load capacity: RS-485/422 port supports 32-point polling</p>



	environment(can be customized to 128-point) Directional control: RS-485 adopts automatic data flow control technology									
LED Indicator	Running Indicator, Port Indicator, Power Supply Indicator, Alarm Indicator									
Switch Property	<ul style="list-style-type: none"> <li>● Transmission mode: store and forward</li> <li>● MAC address: 8K</li> <li>● Packet buffer size: 3Mbit</li> <li>● Backplane bandwidth: 12.8G</li> <li>● Switch time delay: &lt;10μs</li> </ul>									
Power Requirement	12~48VDC The terminal block pitch is 4-pin 7.62mm Dual power supply redundancy, non-polarity, reverse connection 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>MES600-4T4F-4D</td> <td>8.54W</td> <td>9.34W</td> </tr> <tr> <td>MES600-4T4F</td> <td>7.75W</td> <td>8.47W</td> </tr> </tbody> </table>	Model	No-load (@24VDC)	Full-load (@24VDC)	MES600-4T4F-4D	8.54W	9.34W	MES600-4T4F	7.75W	8.47W
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Environmental Limit	<ul style="list-style-type: none"> <li>● Operating temperature range: -40~85℃</li> <li>● Storage temperature range: -40~85℃</li> <li>● Relative humidity: 5% ~ 95% (no condensation)</li> </ul>									
Physical Characteristic	Housing: IP40 protection, metal Installation: DIN-Rail mounting Dimension (W x H x D): 70mm×160mm×130mm Weight: ≤1.18kg									
Industrial Standard	<p>IEC 61000-4-2 (ESD), Level 4</p> <ul style="list-style-type: none"> <li>● Contact discharge: ±8kV</li> </ul> <p>IEC 61000-4-4 (EFT), Level 4</p> <ul style="list-style-type: none"> <li>● Power supply: ±4kV</li> <li>● Ethernet port: ±2kV</li> <li>● Relay: ±4kV</li> </ul> <p>IEC 61000-4-5 (Surge), Level 4</p> <ul style="list-style-type: none"> <li>● Power supply: common mode±4kV, differential mode±2kV</li> </ul> <p>IEC 61000-4-6 (CS), Level 3</p> <ul style="list-style-type: none"> <li>● Test level: 10V</li> </ul>									

- Frequency range: 150kHz-80MHz

IEC 61000-4-8 (PFMF), Level 5

- Stable magnetic field: 100A/m
- Short-time magnetic field(3s): 1000A/m

IEC 61000-4-12, Level 3

- Test level: common mode $\pm$ 2.5kV, differential mode $\pm$ 1kV
- Test frequency: 1MHz, 100kHz

IEC 61000-4-29

- Voltage interrupts: 100%
- Duration: 10ms, 3 times

Shock: IEC 60068-2-27

Free fall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Certification	CE, FCC, RoHS, IEC61850, IEEE1613, SGCC(Type test: Q/GDW 1429-2012, DL/T 1241-2013), CSG(Commissioned test)
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Warranty 5 years



## Ordering Information

Available Models	100M Copper Port	100M Fiber Port	RS-232/485/422 Serial port	Power Supply
MES600-4T4F-4D	4	4	4	12~48VDC
MES600-4T4F	4	4	-	dual power supply



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