#### **3onedata** Make network communication more reliable

# MES600 Series Managed Industrial Ethernet Switch Quick Installation Guide



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#### [Package Checklist]

Please check the integrity of package and accessories before using the switch.

CD

4. Certification

- 1. Switch x 1 (with terminal block) 2.
- 3. Quick installation guide
- 5. Warranty card

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

### [Product Overview]

The series products are managed DIN-Rail industrial Ethernet switches designed for the electricity industry. Models as follows:

Model I. MES600-4T4F-4D (4 100M copper ports + 4 100M fiber ports + 4 RS-232/485/422)

Model II. MES600-4T4F (4 100M copper ports + 4 100M fiber ports)

## 【Panel Design】

> Top view, bottom view and rear view



Front view



- 1. Grounding screw (protective earthing)
- 2. Relay output terminal block
- 3. Console port
- 4. PWR1/PWR2 power supply input
- 5. DIP switch (4 pins)
- 6. DIN-Rail mounting kit
- 7. Alarm indicator (ALM)
- 8. Device running status indicator (RUN)

- 9. PWR1/PWR2 power supply input indicators
- 10. Interface indicators
- 11. 100Base-FX fiber ports
- 12. 10/100Base-T(X) copper ports
- 13. Serial port transmit-receive indicators
- 14. 3IN1 serial port (RS-232/485/422)

### [Mounting Dimension]

Unit: mm



# 【DIN-Rail Mounting】

The product adopts 35mm standard DIN-Rail mounting, which is suitable for most industrial scenes; mounting steps as below:



Step 1 Check if the DIN-Rail mounting kit is installed firmly.
Step 2 Insert the bottom of DIN-Rail mounting kit (one side with spring support) into DIN-Rail, then insert the top into DIN-Rail.

Tips:

Insert a little to the bottom, lift upward and then insert to the top.

Step 3 Check and confirm the product is firmly installed on DIN-Rail, then mounting ends.

#### 【Device Disassembling】

Step 1 Device power off.

Step 2 After lift the device upward slightly, first shift out the top of DIN-Rail mounting kit, then shift out the bottom of DIN-Rail, disassembling ends.

# Notes:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

#### [Power Supply Connection]



This series of devices provide 4-pin power supply input terminal blocks and support DC input. DC power supply input supports redundant power supply input and provides PWR1 and PWR2 input terminal blocks, which can be used separately or

connected to two independent DC power supply systems. Two pairs of terminal blocks are connected to the device simultaneously; when any one power supply system fails, the device can be uninterruptedly and normally running, which has improved the reliability of network operation. Power supply range: 12~48VDC

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• Power ON operation: First insert the power supply terminal block into the device power supply interface, then plug the power supply plug contact and power on.

Power OFF operation: first unpin the power plug, then remove the terminal block wiring part, please note the operation order above.

#### [Relay Connection]



Relay terminals are a pair of normally open contacts in device alarm relay. They are open circuit in normal non alarm state, closed when any alarm information occurs. Such as: it's

closed when power off, and send out alarm. This series switches support 1 channel relay alarm information output, support DC power alarm information or network abnormal alarm output, it can be connected to alerting lamp, alarm buzzer, or other switching value collecting devices for timely warning operating staffs when alarm information occurs.

#### [DIP Switch Setting]



The device provides 4-pin DIP switch for function setting, where "ON" is enable valid terminal. Please power on again after changing

the DIP switch status. DIP switch define and operation method as follows:

1. Reserved

2. Reboot

3. System upgrading 4. Reserved

# [Serial Port Connection]

#### 3IN1 Interface



This series of model I provides 3IN1 serial port, supports RS232, RS485 and RS422 at the same time, interface type is terminal block, the pin definitions as

#### shown in the follow table:

| PIN    | 1  | 2   | 3   | 4  | 5   |
|--------|----|-----|-----|----|-----|
| RS-232 | _  | TXD | GND | _  | RXD |
| RS-485 | D+ | D-  | GND | _  | _   |
| RS-422 | T+ | Т-  | GND | R+ | R-  |

# [Console Port Connection]

The device provides 1 program debugging port based on RS232 serial port, which can be connected to PC for device

CLI command management. The interface adopts RJ45 interface. RJ45 pin definition as follows:

| Pin NO.        | 2   | 3   | 5   |
|----------------|-----|-----|-----|
| Pin definition | TXD | RXD | GND |

#### [Checking LED Indicator]

The device provides LED indicators to monitor the device working status with a comprehensive simplified troubleshooting; the function of each LED is described in the table as below:

| LED           | Status    | Description                       |
|---------------|-----------|-----------------------------------|
|               |           | PWR1 is connected and running     |
| D4            | ON        | normally                          |
| P1            |           | PWR1 is disconnected and          |
|               | OFF       | running abnormally.               |
|               |           | PWR2 is connected and running     |
| <b>D</b> 2    | ON        | normally                          |
| F2            | OFF       | PWR2 is disconnected and          |
|               | 011       | running abnormally                |
|               | ON        | Power supply, port link alarm     |
| ALM           | OFF       | Power supply, port link without   |
|               |           | alarm                             |
|               | 0.55      | The device is powered off or the  |
|               | OFF       | device is abnormal.               |
| RUN           | DI: 1 -   | It flashes once per second, and   |
|               | ыпкіпд    | the device running normally.      |
|               |           | Ethernet port has established an  |
|               | ON        | active network connection         |
| Link          | Dlinking  | Ethernet port is in a network     |
| 1~8           | ыпкіпд    | activity state                    |
|               | OFF       | Ethernet port hasn't established  |
|               | OFF       | an active network connection      |
|               | Plinking  | Serial port is transmitting/      |
|               | Diiriking | receiving data                    |
| κλ/ ι λ( I-4) | OFF       | No data or abnormal data is being |
|               | UFF       | transmitted through serial port   |

#### [Logging in to WEB Interface]

This device supports WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

- Step 1 Configure the IP addresses of computer and the device to the same network segment, and the network between them can be mutually accessed.
- Step 2 Enter device's IP address in the address bar of the computer browser.

#### Attp://192.168.1.254/

Step 3 Enter device's username and password in the login window as shown below.



Step 4 Click "OK" button to login to the WEB interface of the device.

Note:

- The default IP address of the device is "192.168.1.254".
- The default username and password of the device is "admin12345".
- If the username or password is lost, user can restore it to factory settings via device DIP switch or management software; all modified configurations will be cleared after restoring to factory settings, so please backup configuration file in advance.
- Please refer to user manual for specific configuration

method of logging in to WEB interface and other configurations about network management function.

#### [Specifications]

| Specifications      |                                     |  |  |
|---------------------|-------------------------------------|--|--|
| Panel               |                                     |  |  |
| 100M fiber ports    | 100Base-FX                          |  |  |
|                     | 10/100Base-T(X) self-adapting       |  |  |
|                     | RJ45 port, full                     |  |  |
| 100M copper ports   | duplex/half-duplex self-adaption    |  |  |
|                     | or forced working mode, support     |  |  |
|                     | MDI/MDI-X self-adaption             |  |  |
| Console port        | CLI command management port         |  |  |
|                     | (RS-232), RJ45                      |  |  |
|                     | 2-pin 7.62mm pitch terminal         |  |  |
| Alarm interface     | block, support 1 relay alarm        |  |  |
|                     | information output.                 |  |  |
|                     | Power indicator, run indicator,     |  |  |
| Indicator           | interface indicator, alarm          |  |  |
|                     | indicator and serial port indicator |  |  |
| Power Requirements  |                                     |  |  |
|                     | 12 ~ 48VDC;                         |  |  |
|                     | Support dual redundant power        |  |  |
| Input power supply  | supply, non-polarity;               |  |  |
|                     | Support built-in 2.0A overcurrent   |  |  |
|                     | protection.                         |  |  |
| Access terminal     | 4-pin 7.62mm pitch terminal         |  |  |
|                     | blocks                              |  |  |
| Switch Properties   |                                     |  |  |
| Switching bandwidth | 1.6G                                |  |  |
| Packet buffer size  | 3Mbits                              |  |  |
| MAC table size      | 8К                                  |  |  |
| Consumption         |                                     |  |  |
|                     | No-load power                       |  |  |
|                     | consumption:                        |  |  |
|                     | 8.54W@24VDC                         |  |  |
| WL3000-414F-4D      | Full-load power                     |  |  |
|                     | consumption                         |  |  |
|                     | 9.34W@24VDC                         |  |  |

|  | No-load power  |  |  |
|--|--|--|--|
|  | consumption:   |  |  |
|  | 7.75W@24VDC  |  |  |
| MES600-414F  | > Full-load power  |  |  |
|  | consumption  |  |  |
|  | 8.47W@24VDC  |  |  |
| Environmental Limits   |  |  |  |
| Working temperature  | <b>-40~85</b> ℃  |  |  |
| Storage temperature  | -40~85℃  |  |  |
| Working humidity   | 5%~95% (no condensation)   |  |  |
| Protection grade   | IP40 (metal shell)   |  |  |
| Environmental Limits<br>Working temperature<br>Storage temperature<br>Working humidity<br>Protection grade | -40~85℃<br>-40~85℃<br>5%~95% (no condensation)<br>IP40 (metal shell) |  |  |