SD101-I
Hardware User Manual

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1. Specification

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model	SD101-I
Hardware parameters	
CPU	32-bit Arm Cortex-M7 core，up to 400MHz
Serial port	1* RS232/485/422
Serial-Interface	RS232 interface: DB9 male header; RS485/RS422 interface: 5-bit 3.81mm pitch terminal blocks
Serial-Baudrate	600~460800bps
Serial-data format	Support data bits: 7, 8 bits, stop bits: 1, 2 bits Parity bit: none /ODD /EVEN parity
RJ45 network port	One 10Base-T/100Base TX, supporting automatic flow rate control, full duplex/half duplex communication mode and MDI/MDI-X automatic identification
RJ45 network port - Isolation protection	6KV lightning protection, 1.5KV isolation protection
Power Supply	DC9~36V
Power waste	83mA（@12VDC)
ESD	±8kV(contact); ±15kV(air)
Degree of protection	Power Supply：±4kV/common mode, ±2kV/differential mode RS485/422：±4kV/common mode, ±4kV/differential mode Internet port：±6kV/common mode, ±2kV/differential mode
EFT	Power supply: ±4kV, communication port: ±2kV
Product certification	CE、FCC、RoHS
Installation method	wall-mounted type
External dimensions	96×90×26（mm)
Working temperature	-40℃~+85℃
Storage temperature	-40℃~+85℃ 5%~95%RH (no condensation)

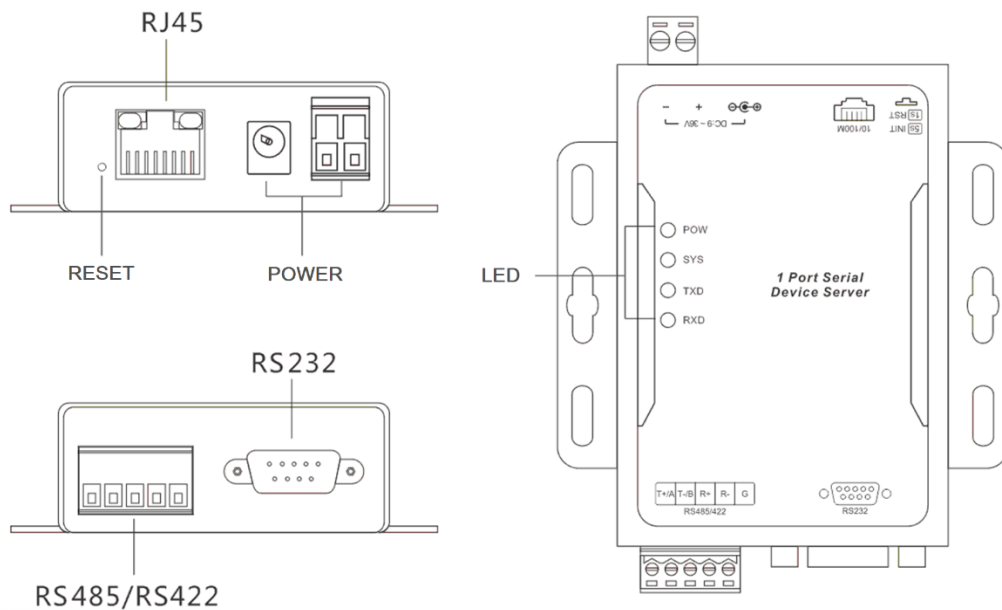| Software parameters	
Network Protocol	IPv4、IP、TCP/UDP、ARP、ICMP、DHCP、DNS、HTTP、RFC2217
Configuration mode	WEB Page Configuration
Transparent transmission mode	TCP Server/TCP Client/UDP Client/UDP Multicast/RealCOM/Pair Connection
Modbus	Modbus RTU/ASCII to Modbus TCP
Serial port data packaging mechanism	Interval time and length can be set; The default value varies according to the bit rate; Maximum packaging length 1460 bytes
TCP Server support number of client connections	Support 8-way TCP client connection
Network cache	Send: 16Kbyte Receive: 16Kbyte
Serial port cache	Send: 1.5Kbyte Receive: 1.5Kbyte
Heartbeat packet	Support TCP Keepalive mechanism and customize heartbeat packet content
Average transmission delay	<10ms

2. Hardward and Installation

❖ **Cautions**

To avoid damage to the device or personal injury due to improper use, please note the following:

1. During the installation process, the serial server product should keep the power off.

2. Please ensure that the input voltage is within the input voltage range indicated by the serial server product.

3. When connecting the power supply, ensure the power cord is properly connected to the power terminals before powering on.

4. When powering off, disconnect the power supply before removing the power cord.

5. Do not open the switch's casing.

6. Do not place heavy objects on the switch.

7. Keep the switch clean and do not use any liquids to clean it.

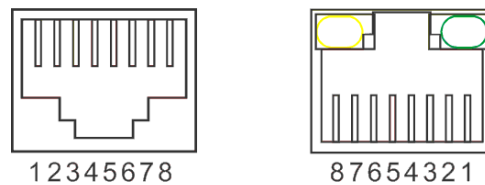## ❖ **Interface instruction**

1. Restart/factory reset button

When the device is powered on, briefly press the RST/INIT button for 1s, and the device will reset and restart after release; Press and hold this key until the SYS light flashes, and the device will restore the factory settings.
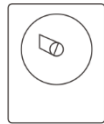
2. Ethernet RJ45 interface

10Base-T/100Base TX adaptive Ethernet RJ45 interface supports automatic MDI/MDI-X connection; Refer to the following figure for RJ45 interface pin distribution：
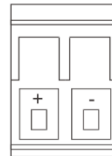

12345678   87654321

Pin number	Signal definition
1	Send data+(TD+)
2	Send Data (- TD -)
3	Receive data+(RD+)
6	Receive Data (- RD -)
4、5、7、8	Not used

3. Power Interface

Power interface ssupport two connection modes: BNC connector (φ2.5mm) and 2P terminal sub (5.08mm pitch), with voltage input range: DC 9~36V.
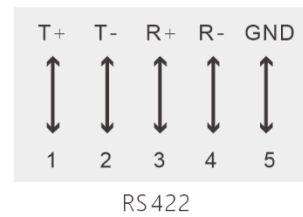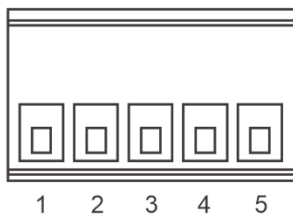
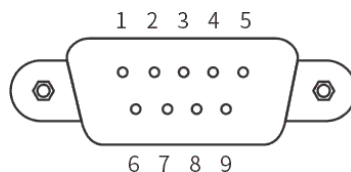BNC(φ2.5mm)   Terminal blocks(5.08mm)

4. RS485/RS422 Serial interface

The RS485/RS422 interface adopts 5-position 5.08mm spacing terminal blocks; the assignment of various interface pins refers to the following

A	B			GND
1	2	3	4	5

RS485

T+	T-	R+	R-	GND
1	2	3	4	5

RS422

5. RS232Serial interface

RS232 interface adopts DB9 header, interface pin allocation refer to the following figure：

```
1 2 3 4 5
 o o o o o
  o o o o
 6 7 8 9
```
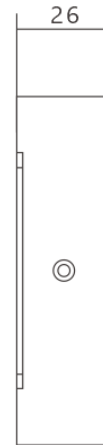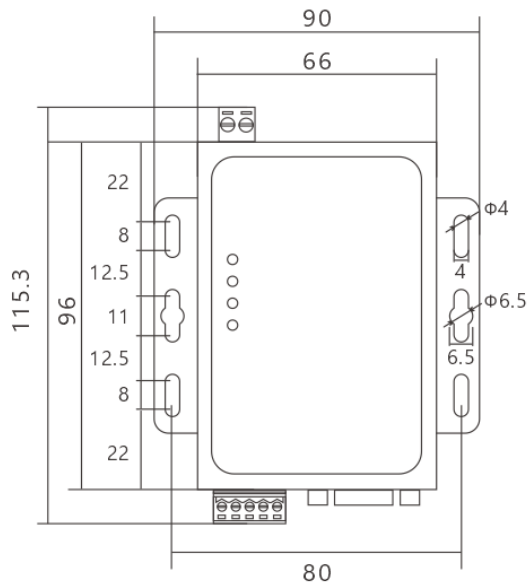
Pin number	Pin name
2	RXD
3	TXD
5	GND
1、4、6、7、8、9	None

6. Indicator light

Indicator light		State	Definition
Power indicator	POW	Long bright	Power supply is normal
		Off	Power supply is not connected or abnormal
System indicator	SYS	Flicker	The system operates normally
		light on/light off	The system is not running or is running abnormally
Serial port indicator	TXD	Flicker	RS232/485/422 interface sending data
		Off	The interface does not send data
	RXD	Flicker	RS232/485/422 interface receiving data
		Off	The interface does not receive data
RJ45 port indicator	Yellow light	Long bright	100M valid connection
		Off	10M working status or RJ45 network port is not connected
	Green light	Long bright	The RJ45 network port has established a valid connection
		Flicker	RJ45 network port has network activity
		Off	The RJ45 network port has not established a valid connection

3. Product Dimension

❖ Dimension

Specification size (unit: mm)

4. Package

❖ Packing

Item	Q'ty	Remark
Industrial Serial Device Server	1	
RS232 serial port cabel	1	
User Manual	1	Digital copy