

GT200-PN-3RS and GT200-PN-RS Products FAQ

V1.5

Version	Update time	Update notes
V1.5	1-29-2022	New Release

**1. After powering 24VDC, indicators are off.**

The power interface is three-pin connector. Please connect power 24V+ to V+ and 24V- to GND. No need to connect pin NC.

**2. How to confirm whether the serial port is working normally?**

When serial port is working, TX and RX will blink alternatively. TX means gateway is sending data, RX means gateway is receiving data.

a. Under Modbus master mode, Modbus protocol is request-response mode, if TX is blinking, RX is not blinking, that means slave is not responding.

**Workaround:** Please check all the communication parameters (Baud Rate, Check Bit, Stop Bits), slave address and Modbus starting address. It is recommended to use a USB to RS232/RS485 adapter, use Modbus Poll or ModScan 32 or serial debug tool to simulate a Modbus master. Thus, the problem will be located better.

b. Under Modbus master mode, if TX is blinking and RX is solid green. Under slave mode, RX is blinking and TX is solid green.

**Workaround:** There are some problems on serial port. Please check the wiring. Sometimes you should connect a 120Ω terminal resistor on two side RS485 port.

c. Under Modbus master and slave mode, if TX and RX are solid green.

**Workaround:** The serial port cable wiring could be reversed, exchange the D+ and D- cables of the RS485. If using RS232 port, exchange the TX and RX of the RS232. Note that the GND of the RS232 must be connected;

**3. If PROFINET side is working abnormally, how to fix?**

When PN (PROFINET) side is working normally, MS and NS should be solid green.

If PN is working abnormally, there could be following reasons.

a. The normal connection between the PN side and the master station is mainly based on the device name. First check that the device name set on the master station side must be the same as the gateway.

b. The position and size of the input and output data blocks configured in the slot corresponding to the gateway of the PN master station should be consistent with those set in the gateway configuration software.

c. If the CPU of the PLC directly has a PN port, it is enough to import the GSDML file for configuration. If it does not have a PN port and an extended Ethernet module, you need to configure other function blocks, such as S7-300+CP 343-1 and use the FC11 and FC12 function blocks.

**4. When the PN gateway is configured with a network cable, the gateway cannot be scanned, how can I solve it?**

- a. The IP address of the computer should use a fixed IP, and should be in the same network segment as the gateway IP 192.168.0.X network segment;
- b. Whether the Ethernet driver corresponding to the configuration software is installed normally, you can find the installation directory of the software and install the driver manually;
- d. Disable the computer's wireless network card and other virtual network devices such as virtual machines;
- d. Change another computer to scan the configuration;

**5. If the indicators of the gateway are blinking normally, but the data is wrong, how can I solve it?**

- a. The data address accessed by the PROFINET master does not correspond to the mapping address configured on the serial port. The working principle of the gateway is to store and forward data, first cache the data in the internal data area of the gateway, and map it to PN through one-to-one mapping;
- b. Whether the Modbus starting address, Baud Rate, and Check Bit configured on the Modbus side are correct;
- c. If there are many devices connected to the serial port of the RS485 gateway, there are many read and write commands configured, and the response speed of the device is a little delayed, you can increase the "Response Timeout" (Modbus Master and User Config mode);
- d. If PN master station can only collect part of the data, you can increase the "Delay between Polls" and "Response Timeout";
- e. If the data is 16-bit integer and 32-bit long integer and floating-point data, convert it to hexadecimal and see if the 16-bit high and low bytes are reversed, and whether the 32-bit high and low registers are reversed. If so, you can use Two Bytes and Four Bytes swapping in command configuration;
- f. You can use USB to RS232/485 to cooperate with serial debugging assistant to monitor the message to find problems;
- g. The serial port of the gateway is used as a Modbus slave station, and the Modbus master station should use the No.04 function code to read data;