

GT200-DP-RS Universal Serial/PROFIBUS DP Gateway

Product Overview

The gateway GT200-DP-RS can connect multiple devices with Modbus/RS-485/RS-232/RS-422 interface with PROFIBUS DP, and establish the communication between them. Modbus/RS-485/RS-232/RS-422 network devices can be converted to PROFIBUS DP network devices.

Technical Specifications

[1] Act as a PROFIBUS DP slave at the side of PROFIBUS DP, while Modbus master, Modbus slave and Universal mode can be selected at serial side and serial interface can be selected RS-232, RS-485 or RS-422;

[2] Serial: RS-485, RS-232, RS-422, half-duplex. Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19.2K, 38.4K, 57.6K and 115.2Kbps can be selected. Parity check mode: None, Odd Even, Mark and space can be selected;

[3] Modbus master supports 01H, 02H, 03H, 04H, 05H, 06H, 0FH and 10H function codes.

[4] It can be configured up to 100 Modbus commands. 03H and 04H support "Word/Byte mapping". Through the high-byte or low-byte mapping of the registers can effectively utilize PROFIBUS DP input-byte; Modbus 03H, 04H, 06H, 10H function codes support exchanging byte.

Using hardware configuration of PROFIBUS DP to configure:

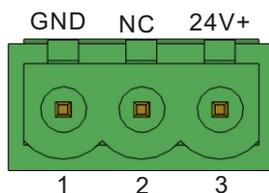
a. Support monitoring status of Modbus slave; b. Support clearing data or keep the last data when input-data is abnormal; c. Support re-transmitting data when response is timeout; d. It can be configured up to 48 Modbus commands;

[4] Modbus slave supports 01H, 02H, 03H, 04H, 05H, 06H, 0FH and 10H function codes;

[5] External dimensions (W*H*D): 1.57 in*4.92 in*4.33 in (40mm*125mm*110mm);

Power interface

Power interface is shown as below:



Pin	Function
1	Power GND
2	NC(Not Connected)
3	24V+, DC Positive 24V

Features

- Easy to configure, configure through serial port on gateway;
- Supports up to 100 Modbus commands;
- Data exchange buffer is 488bytes;(244 bytes input and 244 bytes output)
- PROFIBUS DP port and RS-232 (RS-485/RS-422) can stand 1KV photoelectric isolation;

[6] Working temperature: -4°F ~140°F (-20°C ~60°C), Humidity: 5%~95%;

[7] Installation: 35mm DIN RAIL;

[8] Power Supply: 24VDC(11V-30VDC), Maximum Power Dissipation: 2W;

[9] Protection Level: IP20;

PROFIBUS DP interface

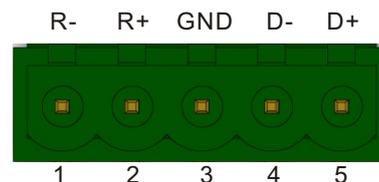
PROFIBUS DP interface uses DB9 connector, and the pins are defined as follows:



Pin	Function
3	PROFI_B, Data positive
5	GND (optional)
8	PROFI_A, Data negative

RS-485/RS-422 interface

The RS-485 interface of GT200-DP-RS is a standard one, and the RS-485 characteristics of the product are shown as follows:



Pin	Function
1	R-, RS-422 Receive Negative
2	R+, RS-422 Receive Positive
3	GND
4	D-, RS-485/RS-422 Transmit Negative
5	D+, RS-485/RS-422 Transmit Positive

Appearance



Indicators

Indicators		State	Description
PB	PBF	Always Red	PROFIBUS DP communication fails.
		OFF	Communication is ok.
	STA	Green Blinking	PROFIBUS DP is communicating.
		OFF	PROFIBUS DP is not communicating.
RS-232/485/422	TX	Green Blinking	RS-232/485/422 port is sending data.
		OFF	RS-232/485/422 port isn't sending data.
	RX	Green Blinking	RS-232/485/422 port is receiving data.
		OFF	RS-232/485/422 port isn't receiving data.

LED Display

LED display is in the front of the product.
There are three display conditions:

LED display	Description
CF	The gateway is in the configuration mode.
db	The gateway is in the debug mode.
number+"-P" or "-U" alternating flashing	The gateway is in the run mode. The number shows the PROFIBUS DP slave address. "-U" means using the configuration of software mode, "-P" means using DP master configuration mode.

Configuration Button

Configuration button on the front panel can be used to set the address of the PROFIBUS DP slave. Now, we have three operation ways to provide users. That is address setting mode, configuration mode and debug mode. Please refer to the user manual for detailed information.