GT100-DP-RS
Serial/PROFIBUS DP Gateway

Product Overview

The gateway GT100-DP-RS implements data communication between serial port and PROFIBUS DP. Equipment with RS-232 or RS-485 or RS-422 interface can be connected to PROFIBUS DP network by using this gateway.

Technical Specifications

[1] GT100-DP-RS acts as a PROFIBUS DP Slave at the side of PROFIBUS DP, while it acts as a Modbus Master or universal mode at the side of serial port;

[2] When GT100-DP-RS acts as a Modbus Master:
Supports 01H, 02H, 03H, 04H, 05H, 06H, 0FH and 10H function codes, supports maximum 48 Modbus commands, Modbus function codes 03H and 04H support function of "Byte-Swapping" and make users easily solve the problem of the format of big end data and small end data between the two networks;

[3] When GT100-DP-RS is set in universal mode, the frame type of time interval between characters, frame length and delimiter are supported and available to automatic sending;

[4] Complete PROFIBUS DP V0 slave functionality according to EN50170 (IEC61158): Measuring and control digital data communication industrial control system by using the third part of field bus: PROFIBUS standard;
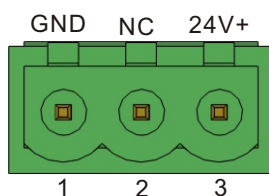
[5] As a PROFIBUS DP slave. Automatic baud rate detection on PROFIBUS DP (9600 bit/s ~ 12 Mbit/s);

[6] Support 3 serial ports: RS-232, RS-485 and RS-422;

[7] External dimensions (W*H*D): 0.98 in*3.94 in *3.54 in; (25mm*100mm*90mm);

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 USB or serial port on gateway;

● Supports up to 48 Modbus commands;

● Date exchange buffer is 488 bytes;(244 bytes input and 244 bytes output)

● Serial port is able to support 3 modes of electrical interfaces: RS-232, RS-485 and RS-422.

[8] Working temperature: -40℉~140℉ (-40℃~60℃), Humidity: 5%~95%;
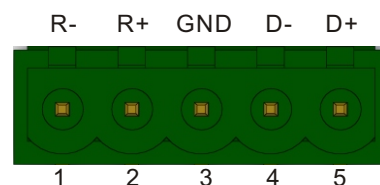[9] Installation: 35mm DIN RAIL.

PROFIBUS DP interface

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

GND(Pin 5)
PROFI_A(Pin 8)
PROFI_B(Pin 3)

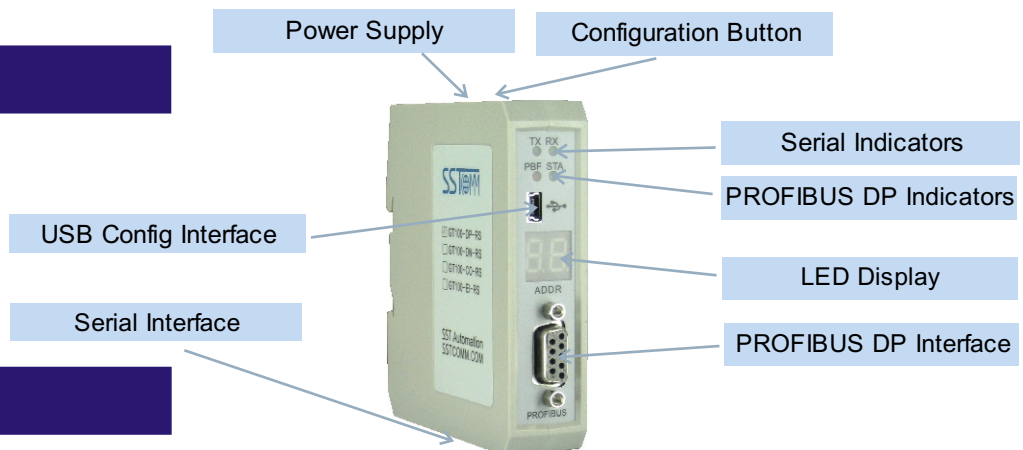| Pin	Function
3	PROFI_B, Data positive
5	GND (optional)
8	PROFI_A, Data negative

RS-485/RS-422 interface

The RS-485 interface of GT100-DP-RS is a standard one, and the RS-485 characteristics of the product are shown as follows:

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

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-422Transmit Positive

Appearance

Power Supply   Configuration Button

Serial Indicators

PROFIBUS DP Indicators

USB Config Interface

LED Display

Serial Interface

PROFIBUS DP Interface

Indicators

Indicator	Status	Description
STA	Green Blinking	PROFIBUS DP is communicating
	Green Off	No data communication
PBF	Red On	PROFIBUS DP communication fails
	Red Off	Normal data communication
RX	Green Blinking	Serial port is receiving data
	Green Off	No data receiving
TX	Green Blinking	Serial port is sending data
	Green Off	No data sending

LED Display

Display the current PROFIBUS DP address and the configuration state.
The default mode of GT100-DP-RS is normal communication mode after powering on, LED (always on) displays PROFIBUS DP address.

Configuration Button

There are two mode: mode switch and PROFIBUS DP address modification.
Under mode switch mode, press the button to enter into the configuration mode; the LED displays "CF", users can use connect serial port or USB port to PC to finish the uploading and downloading.
Under DP address modify mode, double click the button to enter the PROFIBUS DP address modifying state. After finishing setting, long press the button for 2.5s to save the setting.

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