

GT100-EI-RS Modbus/EtherNet/IP Adapter

Product Overview

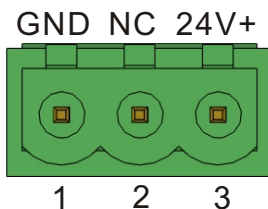
GT100-EI-RS is an adapter which can realize the mutual conversion between Modbus protocol and EtherNet/IP protocol. It can connect Modbus (other serial protocol) devices to EtherNet/IP network. Modbus side supports RS-422/RS-485, and also supports RS-232.

Technical specifications

- [1] EtherNet/IP network is independent with Modbus network;
- [2] Ethernet 10/100M self-adaptive;
- [3] IP address conflict detection;
- [4] Support ODVA standard EtherNet/IP communication protocol;
- [5] Serial: RS-422/RS-485 or RS-232 interface, half-duplex. Baud rate: 1200, 2400, 4800, 9600, 19.2 K, 38.4K, 57.6K and 115.2Kbps can be selected. Parity check mode: None, Odd and Even can be selected, 1 or 2 stop bits optional;
- [6] Acts as Modbus master, it supports 01H, 02H, 03H, 04H, 05H, 06H, 0FH and 10H function codes. It can be configured up to 48 Modbus commands, 03H and 04H support "Word / Byte mapping" and it is easy to solve the format conversion problem of big-endian and little-endian between two network data;
- [7] Works as universal mode, it supports character timeout, character number and delimiter control mode, it has auto sending function;
- [8] Serial has independent 1KV photo electric isolation;
- [9] Max input and output bytes of EtherNet/IP: 492 bytes (If it adopts universal mode, that is 256 bytes);
- [10] Working temperature: -40°F~-140°F(-40°C~60°C), relative humidity: 5% ~ 95% (non-condensing);
- [11] 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:



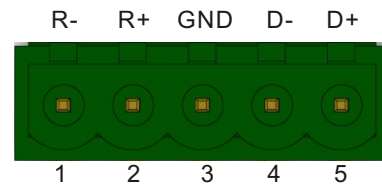
Pin	Function
1	GND
2	NC (Not Connected)
3	24V+, DC



Features

- One RS-422/RS-485 or RS-232 interface with independent 1KV photo electric isolation;
- Ethernet 10/100M self-adaptive;
- IP address conflict detection;
- Modbus network communication debug function;
- Provide easy-to-use configuration software SST-MI-CFG.

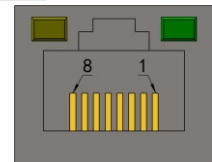
RS-485/RS-422 interface



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

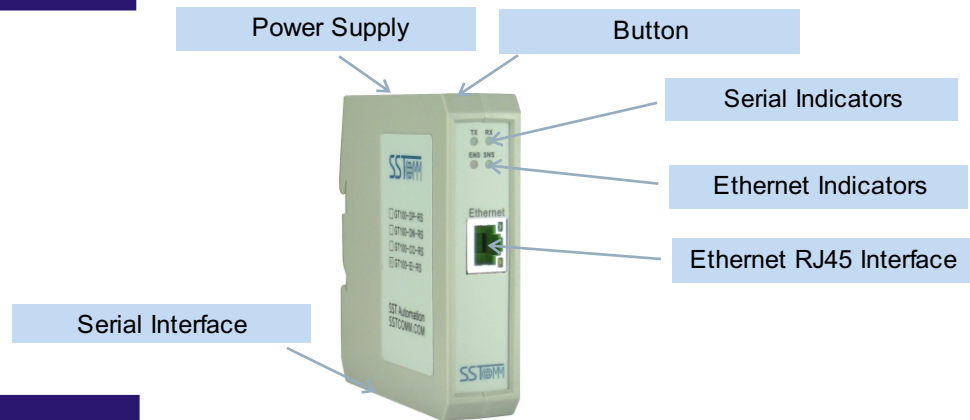
Ethernet interface

Ethernet interface uses RJ-45 connector; its pin (standard Ethernet signal) is defined as below:



Pin	Description
S1	TXD+, Tranceive Data+, Output
S2	TXD-, Tranceive Data-, Output
S3	RXD+, Receive Data+, Input
S4	Bi-Directional Data+
S5	Bi-Directional Data-
S6	RXD-, Receive Data-, Input
S7	Bi-Directional Data+
S8	Bi-Directional Data-

Appearance

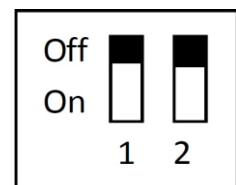


Indicators

Indicators	Status	Descriptions
ENS(IP indicators)	Red off	IP address launch is normal
	Red blinking	DHCP
SNS(EtherNet/IP network status indicators)	Green on	Ethernet/IP connection is established, communication is normal
	Green blinking	EtherNet/IP connection is not established
TX, RX(serial data indicators)	TX, red blinking	Serial port is sending data
	RX, green blinking	Serial port is receiving data

Configuration switch

The DIP switch is located at the bottom of the gateway, bit 1 is mode bit and bit 2 is function bit.



Mode (bit 1)	Function (bit 2)	Description
Off	Off	Run mode, allow reading and writing configuration data
Off	On	Run mode, forbid reading and writing configuration data
On	Off/On	Configuration mode, IP address is 192.168.0.10 (fixed), this mode can read and write configuration data but cannot finish communication between EtherNet/IP and Modbus

Notes:

Restart GT100-EI-RS (power off and power on) after resetting the configuration to make the configuration take effect!