



IGW3200-2T1D-TB-P (24VDC)

Rail Mounted Installation

MODBUS RTU To PROFINET Protocol Gateway

- Supports 1 RS485 serial port to 2 10/100 Mbit/s Profinet Ethernet interfaces, RJ45 interface
- Complies with standard Profinet IO and Modbus protocol specifications, supports custom serial protocol
- No need to configure Modbus parameters through Profinet IO, supporting more Modbus device connections
- Support configuration software for online monitoring and recording of Modbus network data
- Support Modbus device point table import and export, facilitating engineer configuration
- Supports 24V DC DC power supply
- Support -20~70°C wide operating temperature range



Industrial Grade



Fanless Desig



Introduction

IGW3200-2T1D-TB-P (24VDC) is a powerful and easy to configure gateway used to connect serial devices to the Profinet network. This gateway can achieve bidirectional data exchange, support standard Modbus RTU devices, and also support custom serial port protocols.

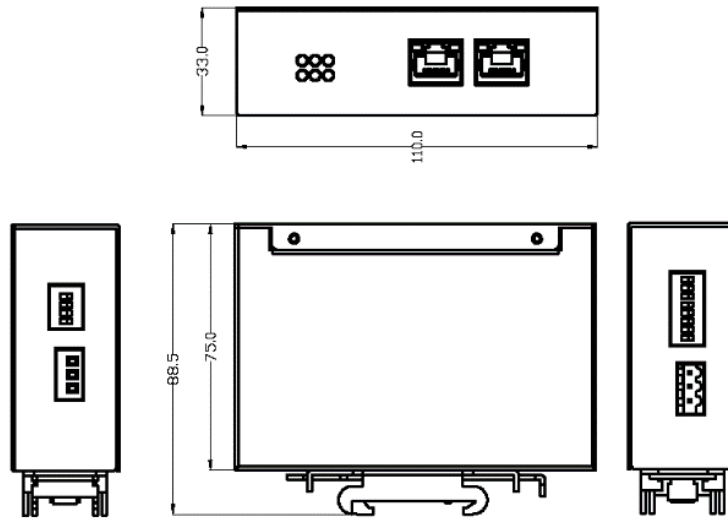
On the Profinet side, the gateway operates as a Profinet IO device and uses card slots and sub slots for data exchange; Provide customers with the GSDML file for this gateway, load the GSDML file through the TIA portal, and configure the PROFINET network. On the serial port side, the device can serve as both a Modbus master and slave station and can be customized by the user. The mapping of Profinet IO and serial port data is completed by the configuration software, and the exchange of Profinet IO network data and serial port network data is completed through the gateway. This device is widely used in frequency converters that support serial interfaces (RS485), intelligent high and low voltage electrical appliances, power measurement devices, intelligent on-site measurement equipment, instruments, PLCs, DCS, FCS, and so on.

Features and Benefits

- ⦿ Supports 2-way 10/100 Mbit/s Profinet Ethernet interface, meeting Profinet specification V2.3 and GSDML specifications V2.32 and V2.33
- ⦿ Complies with standard Profinet IO and Modbus protocol specifications, supports custom serial protocol
- ⦿ Graphical configuration without programming
- ⦿ Protocol conversion time in milliseconds
- ⦿ No need to configure Modbus parameters through Profinet IO, supporting more Modbus device connections
- ⦿ Flexible serial port customization method
- ⦿ The configuration software can monitor and record Modbus network data online
- ⦿ Support Modbus device point table import and export, facilitating engineer configuration
- ⦿ Extensive industrial field application verification
- ⦿ High cost performance, can be quickly customized

Dimension

Unit:mm



Specification

PROFINET

Specifications: Profinet V2.3, GSDML V2.32, GSDML V2.33

Interface format: 10/100 Mbit/s Ethernet, RJ45

Card slot: Supports 16 card slots

System: MRP

Maximum data: 1440 bytes IN+1440 bytes OUT

Switch: Integrated dual port switch

Non periodic read and write: supports non periodic RECORD read and write

Number of interfaces: 2 channels

Communication level: IRT

Monitoring unit: FSU

Protocol conversion time:<15ms

Serial Port

Specifications: Modbus V1.1b3, Modbus RTU, V1.02

Number of serial ports: 1 RS485 interface, 3 wiring terminals, software selection interface

Node size: Up to 32 Modbus RTU slave devices can be connected, and up to 128 Modbus commands can be supported.

Supports up to 128 custom commands

RS485 terminal resistor: Qin style dial code

Support baud rates: 1200 Bit/s, 2400 Bits/s, 4800 Bits/s, 9600 Bits/s, 19200 Bits/s, 38400 Bits/s, 57600 Bits/s, 115200 Bits/s

Master and slave stations: Modbus RTU master and slave stations are optional

Verification: Supports odd, even, and no options
 Modbus RTU function codes: 01H, 02H, 03H, 04H, 05H, 06H, 0FH, 10H functions
 Custom protocol communication model: request response method
 Custom protocol basic elements: constants, variables, checksums
 Custom protocol triggering: supported, can set triggering address

<p>Configuration Tools</p>	<p>Tool Name: 3onedata Configuration Studio Configuration interface: Ethernet interface Engineering management: supports saving and loading Language: Supports switching between Chinese and English Monitoring: Supports Modbus message monitoring, import, and export Modbus point table: supports importing and exporting Modbus point tables Interactive mapping: supports configuration of serial port data and Profinet IO mapping</p>
<p>Connection, Configuration, And Firmware Updates</p>	<p>Connection: Simple implementation of daisy chain linear topology structure Configuration: Connect the serial port and power supply through terminals Update: Configure ports through Ethernet interface</p>
<p>Indicator Light</p>	<p>Power indicator light, Ethernet port indicator light, serial port indicator light, and operation indicator light</p>
<p>Source</p>	<p>24 VDC soil 10%, 100mA typ</p>
<p>Protection/Isolation</p>	<p>Triple isolation: Serial port<=>Power supply<=>Ethernet Protection: reverse voltage/short circuit protection</p>
<p>Work Environment</p>	<p>Working temperature: -20~70 °C Storage temperature: -40~85 °C Relative humidity: 10%~95% (without condensation)</p>
<p>Mechanical Structure</p>	<p>Shell: IP20 protection level, metal shell Installation: DIN 35mm rail installation Dimensions (width x height x depth): 33mm x 110mm x 75mm Weight: approximately 330g</p>
<p>Warranty</p>	<p>5 years</p>
<p>Serial Port</p>	<p>Specifications: Modbus V1.1b3, Modbus RTU, V1.02 Number of serial ports: 1 RS485 interface, 3 wiring terminals, software selection interface Node size: Up to 32 Modbus RTU slave devices can be connected, and up to 128 Modbus commands can be supported. Supports up to 128 custom commands</p>

	<p>RS485 terminal resistor: Qin style dial code</p> <p>Support baud rates: 1200 Bit/s, 2400 Bits/s, 4800 Bits/s, 9600 Bits/s, 19200 Bits/s, 38400 Bits/s, 57600 Bits/s, 115200 Bits/s</p> <p>Master and slave stations: Modbus RTU master and slave stations are optional</p> <p>Verification: Supports odd, even, and no options</p> <p>Modbus RTU function codes: 01H, 02H, 03H, 04H, 05H, 06H, 0FH, 10H functions</p> <p>Custom protocol communication model: request response method</p> <p>Custom protocol basic elements: constants, variables, checksums</p> <p>Custom protocol triggering: supported, can set triggering address</p>
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Configuration Tools

Tool Name: 3onedata Configuration Studio

Configuration interface: Ethernet interface

Engineering management: supports saving and loading

Language: Supports switching between Chinese and English

Monitoring: Supports Modbus message monitoring, import, and export

Modbus point table: supports importing and exporting Modbus point tables

Interactive mapping: supports configuration of serial port data and Profinet IO mapping

<p>Connection, Configuration, And Firmware Updates</p>	<p>Connection: Simple implementation of daisy chain linear topology structure</p> <p>Configuration: Connect the serial port and power supply through terminals</p> <p>Update: Configure ports through Ethernet interface</p>
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Indicator Light

Power indicator light, Ethernet port indicator light, serial port indicator light, and operation indicator light

<p>Source</p>	<p>24 VDC soil 10%, 100mA typ</p>
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Protection/Isolation

Triple isolation: Serial port<=>Power supply<=>Ethernet

Protection: reverse voltage/short circuit protection

<p>Work Environment</p>	<p>Working temperature: -20~70 °C</p> <p>Storage temperature: -40~85 °C</p> <p>Relative humidity: 10%~95% (without condensation)</p>
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Mechanical Structure

Shell: IP20 protection level, metal shell

Installation: DIN 35mm rail installation

Dimensions (width x height x depth): 33mm x 110mm x 75mm

Weight: approximately 330g

<p>Warranty</p>	<p>5 years</p>
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Ordering Information

Model	100Mbps Profinet port	RS485	Source
IGW3200-2T1D-TB-P (24VDC)	2	1	24 VDC soil 10%



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