



GW-7553-B GW-7553-M

PROFIBUS to Modbus TCP Gateway

Features

- Protocol & Hierarchy: DP-V0 & DP-V1 Slave
- Detect transmission rate (9.6 ~ 12000 kbps) automatically
- Max Input / Output Data Length : 240 Bytes
- Support Modbus Master and Slave mode
- Support Modbus RTU, ASCII and TCP format
- Address 0~126 set by DIP switch or EEPROM
- Support several kinds of baud rate for COM1 from 2.4 to 115.2 kbps
- Network Isolation Protection: High Speed iCoupler
- 3000 VDC isolation protection on PROFIBUS side
- 4 kV ESD Protection



Introduction

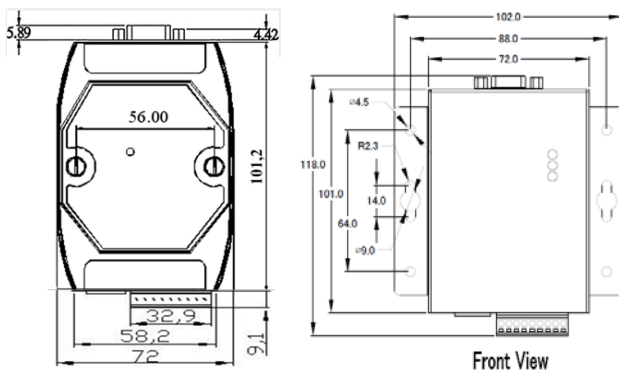
The GW-7553 Gateway is specially designed for the slave device of PROFIBUS DP protocol. It allows the PROFIBUS master to access the Modbus TCP devices. These Modbus devices may be a PLC, a sensor, the ICPDAS I-8KE4-MTCP module and so forth. In addition, the GW-7553 module built-in web server, the user can set the module by web browser. By using this module, users can put their Modbus TCP devices into PROFIBUS network very easily.

Modbus Support

- GW-7553 only supports the following Modbus commands

| Code | Name | Description |
|------|-------------------------|---|
| 01 | Read Coil Status | Read the ON/OFF status of discrete outputs in the slave |
| 02 | Read Input Status | Read the ON/OFF status of discrete inputs in the slave |
| 03 | Read Holding Registers | Read the binary contents of holding registers in the slave |
| 04 | Read Input Registers | Read the binary contents of input registers in the slave |
| 05 | Force Single Coil | Write a single output to either ON or OFF in the slave |
| 06 | Preset Single Register | Write an integer value into a single register in the slave |
| 15 | Force Multi. Coils | Write each coil in the sequence of coils to either ON or OFF in the slave |
| 16 | Preset Multi. Registers | Write a block of contiguous registers in the slave |

Dimensions (Units: mm)

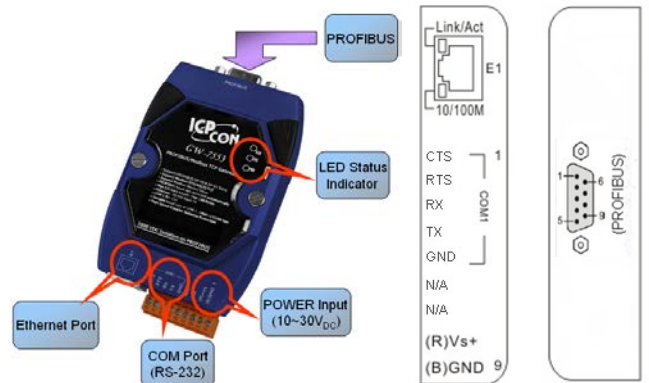


Utility

- Provide safe value setting
- Provide network configuration
- Show diagnostic messages and device information
- Show communication log between GW-7553 and Modbus devices



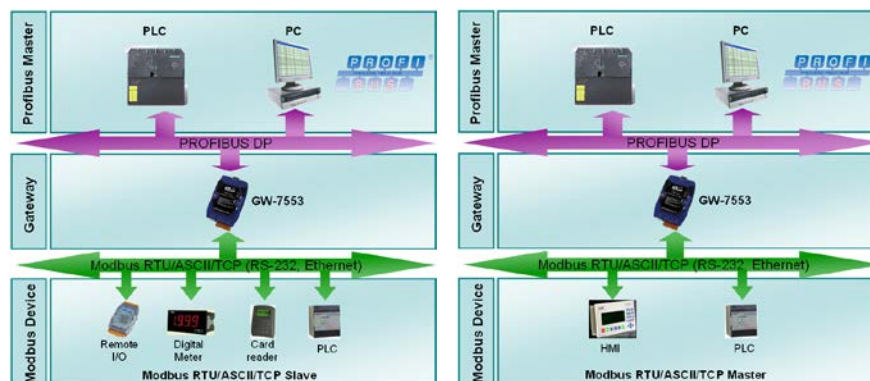
Pin Assignments



Hardware Specifications

| | |
|---------------------------|---|
| Hardware | |
| CPU | 80186, 80 MHz or compatible |
| SRAM/Flash/EEPROM | 512 KB / 512 KB / 16 KB |
| Watchdog | Watchdog IC CPU built-in |
| ESD Protection | 4 kV class A |
| PROFIBUS Interface | |
| Controller | Profichip VPC3+C |
| Transceiver | ADI ADM2486 |
| Connector | 9-pin female D-Sub |
| Baud Rate (bps) | 9.6 k, 19.2 k, 45.45 k, 93.75 k, 187.5 k, 500 k, 1.5 M, 3 M, 6 M, 12 M |
| Transmission Distance (m) | Depend on baud rate (for example, max. 1200 m at 9.6 kbps) |
| Isolation | 3000 V _{DC} for DC-to-DC, 2500 V _{rms} for bus-to-logic |
| Protocol | DP-V0 & DP-V1 |
| UART Interface | |
| COM | RS-232 (For updating firmware and configuration) |
| COM Connector | 5-pin screwed terminal block (TxD, RxD, RTS, CTS, GND) |
| Baud Rate (bps) | 2400, 4800, 9600, 19200, 38400, 57600, 115200 |
| Data bit | 7, 8 |
| Stop bit | 1, 2 |
| Parity | None, Even, Odd |
| Ethernet Interface | |
| Controller | 10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX) |
| Connector | RJ-45 with LED indicator |
| LED | |
| Round LED | PWR LED, RUN LED, ERR LED |
| Power | |
| Power supply | Unregulated +10 ~ +30 V _{DC} |
| Protection | Power reverse polarity protection, Over-voltage brown-out protection |
| Power Consumption | 2.5 W |
| Mechanism | |
| Installation | DIN-Rail |
| Dimensions | 72mm x 33mm x 119mm (W x L x H) |
| Environment | |
| Operating Temp. | -25 ~ 75 °C |
| Storage Temp. | -30 ~ 85°C |
| Humidity | 5 ~ 95% RH, non-condensing |

Application



Ordering Information

| | |
|---------------------|--|
| GW-7553-B CR | PROFIBUS/Modbus TCP Gateway (RoHS) |
| GW-7553-M CR | PROFIBUS/Modbus TCP Gateway (RoHS) with Metal casing |