



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

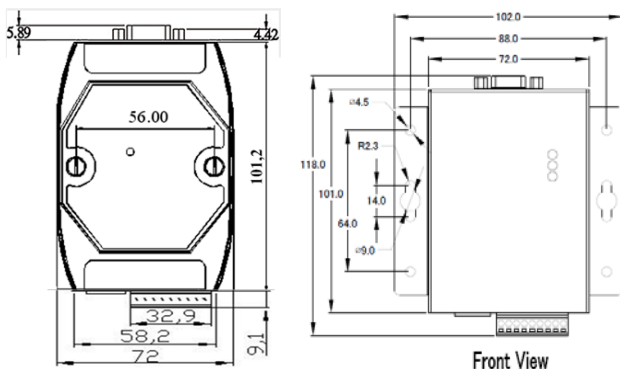
Code	Name	Description
01	Read Coil Status	Read the ON/OFF status of discrete outputs in the slave
02	Read Input Status	Read the ON/OFF status of discrete inputs in the slave
03	Read Holding Registers	Read the binary contents of holding registers in the slave
04	Read Input Registers	Read the binary contents 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

Utility

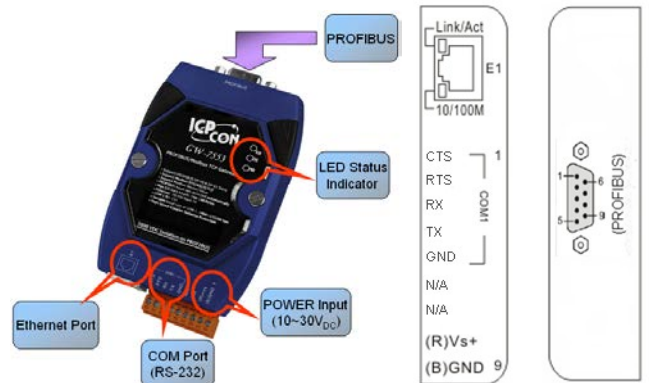
- Provide safe value setting
- Provide network configuration
- Show diagnostic messages and device information
- Show communication log between GW-7553 and Modbus devices



Dimensions (Units: mm)



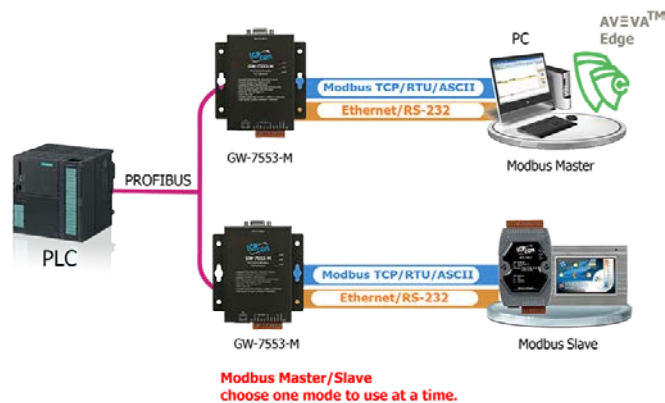
Pin Assignments



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