

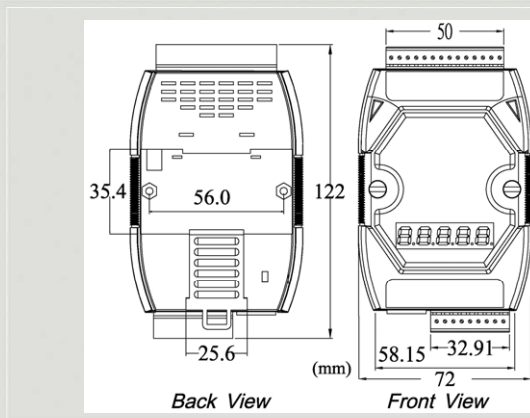


DeviceNet Series Products

Modbus TCP Server to DeviceNet Master Gateway



GW-7434D



Dimensions

The GW-7434D from ICP DAS is a solution that provides a communication protocol transfer the DeviceNet and Modbus TCP protocol and solves a mission-critical problem: connecting an existing DeviceNet network to Ethernet-based PLCs and PC-based configuration and monitor system. It enables DeviceNet networks to be coupled together over the Internet/Ethernet, whereby remote monitoring and control is possible. The GW-7434D can be a DeviceNet master device in the CAN bus on the DeviceNet network. It supports “Predefined Master/Slave Connection Set” and “Group 2 Only Server” functions to communication with slave devices.

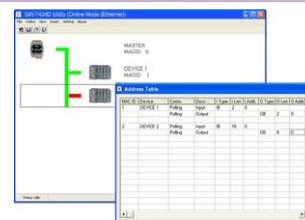
Features

- Supports maximum DeviceNet devices up to 63
- Predefined Master/Slave Connection Set
- Supports one Poll, one Bit-Strobe, one COS or one Cyclic IO connection for each DeviceNet device
- Supports on-line adding device into and removing device from network
- Converts single Modbus TCP to multi Modbus RTU devices, setting by Utility
- Supports VxComm technique for every COM ports of controllers, setting by Utility
- Supports Modbus RTU to DeviceNet master, setting by Utility
- Allows multi-client access simultaneously

Modbus TCP Command Support

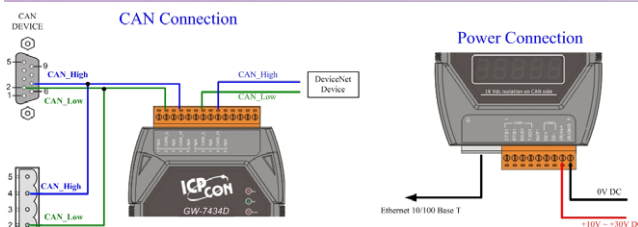
| Function code. | Description |
|----------------|------------------------|
| 01 (0x01) | Read Coil Status |
| 02 (0x02) | Read Input Status |
| 03 (0x03) | Read Holding Registers |
| 04 (0x04) | Read input Registers |
| 05 (0x05) | Force Single Coils |
| 06 (0x06) | Preset Single Register |
| 15 (0x0F) | Force Multi Coils |
| 16 (0x10) | Preset Multi Registers |

Utility Features

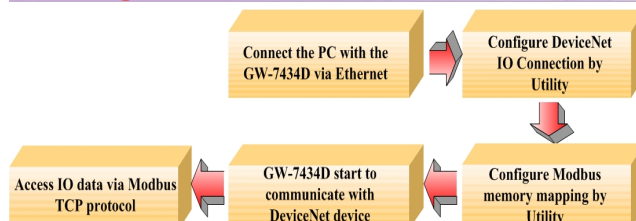


- Online add/remove DeviceNet devices via Ethernet
- Online monitor and configure devices status via Ethernet
- Get/Set Modbus TCP input/output memory address
- Support communication mode setting
- DeviceNet baud and ID configuration

Pin Assignments



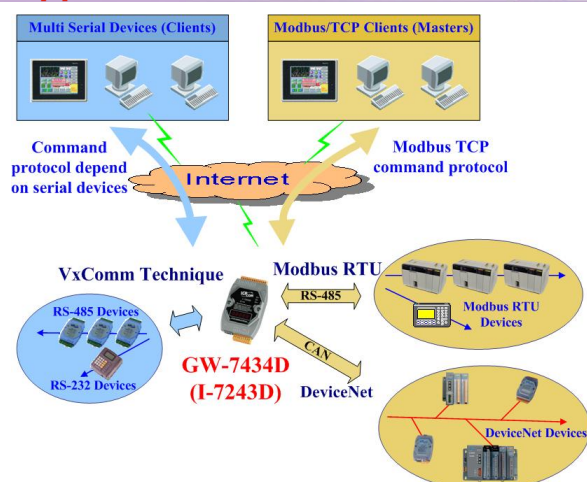
Design Flowchart



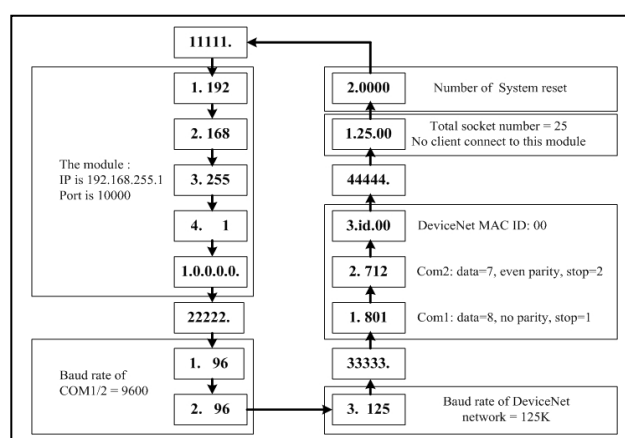
Hardware Specifications

| Hardware | |
|--------------------|--|
| CPU | 80186, 80 MHz or compatible |
| SRAM/Flash/EEPROM | 512 KB / 512 KB / 16 KB |
| Watchdog | Watchdog IC |
| CAN Interface | |
| Controller | NXP SJA1000T with 16 MHz clock |
| Transceiver | NXP 82C250 |
| Connector | 5-pin screwed terminal block (CAN_L, CAN_H, N/A for others) |
| Isolation | 1000 V _{DC} for DC-to-DC, 2500 Vrms for photo-couple |
| Protocol | DeviceNet Volume I ver2.0, Volume II ver2.0 |
| UART Interface | |
| COM 1 | RS-232 |
| COM 1 Connector | 5-pin screwed terminal block (TxD, RxD, RTS, CTS, GND) |
| COM 2 | RS-485 (Self-turner inside) |
| COM 2 Connector | 2-pin screwed terminal block (DATA+, DATA-) |
| Ethernet Interface | |
| Controller | 10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX) |
| Connector | RJ-45 with LED indicator |
| Protocol | Modbus TCP |
| Power | |
| Power supply | Unregulated +10 ~ +30 V _{DC} |
| Protection | Power reverse polarity protection, Over-voltage brown-out protection |
| Power Consumption | 2.5 W |
| Mechanism | |
| Dimensions | 72mm x 122mm x 33mm (W x L x H) |
| Environment | |
| Operating Temp. | -25 ~ 75 °C |
| Storage Temp. | -30 ~ 80 °C |
| Humidity | 10 ~ 90% RH, non-condensing |

Application



5-digit 7-segment Display



Ordering Information

| | |
|----------------------|--|
| GW-7434D-G | Modbus TCP server to DeviceNet master Gateway |
| GW-7434D-G CR | Modbus TCP server to DeviceNet master Gateway (RoHS) |