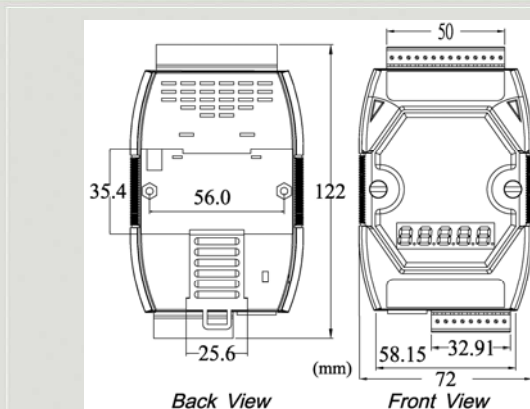# DeviceNet Series Products

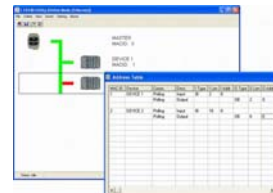## Modbus TCP server to DeviceNet master Gateway

RoHS · CE · FC

I-7243D

Dimensions

The I-7243D 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-base 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 I-7243D 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, one Cyclic IO connection for each DeviceNet device when connected with this module.
- Supports on-line adding device into and removing device from network
- Supports boot-up auto communicate with DeviceNet slave devices.
- Converts single Modbus TCP to multi Modbus RTU devices, setting by Utility
- Supports VxComm technique for every COM ports of controllers, setting by Utility
- Allows multi-client access simultaneously

Modbus TCP Command Support

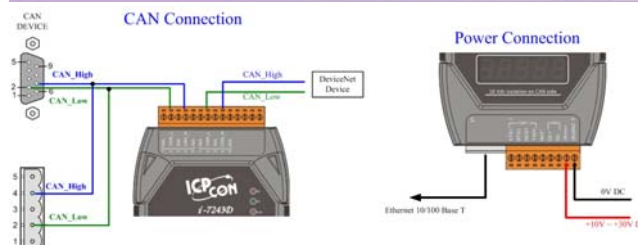| Function code.	Description
01 (0x01)	Read Coil Status
02 (0x02)	Read Input Status
03 (0x03)	Read Holding Registers
04 (0x04)	Read input Registers
05 (0x05)	Force Single Coils
06 (0x06)	Preset Single Register
15 (0x0F)	Force Multi Coils
16 (0x10)	Preset Multi Registers

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.
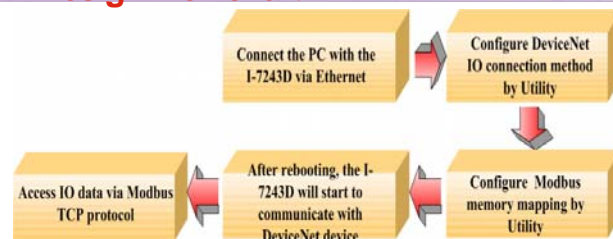- DeviceNet baud and ID configuration.

Pin Assignments

Design Flowchart

ICP DAS Professional Provider of High Quality Industrial Data Acquisition and Control Products   http ://www.icpdas.com

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_SHLD, CAN_H, N/A for others)
Isolation	1000 V_{DC} for DC-to-DC, 2500 Vrms for photo-couple
Protocol	DeviceNet Volumn I ver2.0, Volumn 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 33mm x 122mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 ℃
Storage Temp.	-40 ~ 80 ℃
Humidity	5 ~ 95% RH, non-condensing

Application
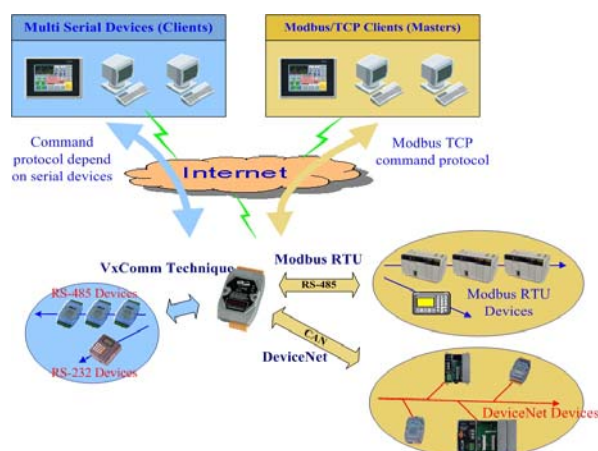
5-digit 7-segment Display
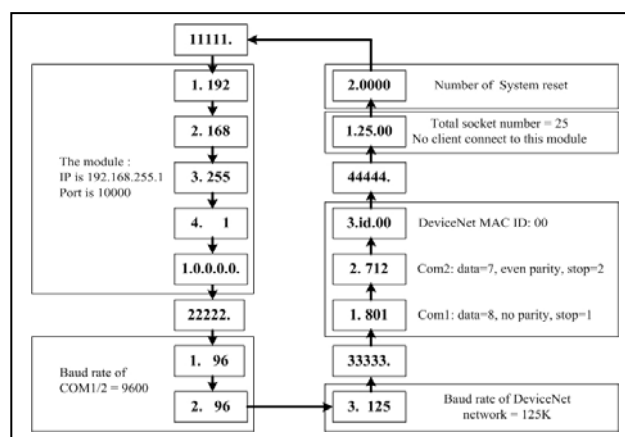
Ordering Information

I-7243D-G	Modbus TCP server to DeviceNet master Gateway
I-7243D-G CR	Modbus TCP server to DeviceNet master Gateway (RoHS)