PISO-DNM100U-D
PISO-DNM100U-T

1 Port Intelligent DeviceNet Master Board

Features

- DeviceNet Version: Volume I & II, Release 2.0
- Programmable master MAC ID and baud rate
- Baud Rate: 125 kbps, 250 kbps, 500 kbps
- Support Group 2 and UCMM connection
- I/O Operating Modes: Poll, Bit-Strobe, Change of State / Cyclic
- I/O Length: max 512 input bytes and 512 output bytes pre slave
- Slave Node: 63 nodes max
- Auto-reconnect when the connection is broken
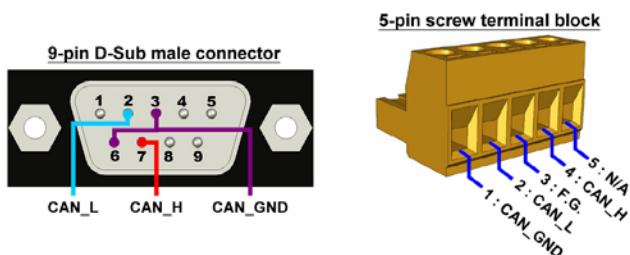
Introduction

DeviceNet is a simple low cost open industrial networking system. It provides the communication service needed by various types of applications such as sensor, switches, bar-code scanner, AC/DC drives etc. DeviceNet supports the Master/Slave connection model. The PISO-DNM100U module acts the DeviceNet master device and communicates with the remote slave devices. There is a complete DeviceNet protocol firmware in the PISO-DNM100U. The users can easily access the slave device via PISO-DNM100U by using DLL library functions and need not to deal with the complex DeviceNet protocol. The uses can use as easy as "Read/Write" functions to access slave I/O data.

Utility Features

This utility supports to search all devices and specific devices in the network and can configure the I/O connection of the devices by searching devices or manual setting. It can easily to access the I/O data of all the slave devices.

Pin Assignments

9-pin D-Sub male connector

CAN_L   CAN_H   CAN_GND

5-pin screw terminal block

5 : N/A
4 : CAN_H
3 : F.G.
2 : CAN_L
1 : CAN_GND

Establish Connection Flowchart

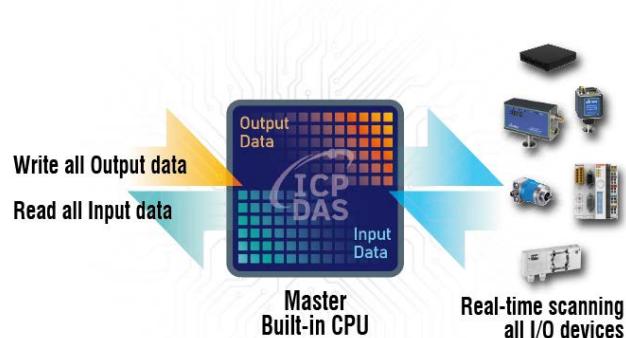**1 Search** — Search the whole remote devices and save them.

2 Start — Start to communicate all the remote devices.

3 Remote Data — Read and write the real-time I/O data to the remote devices.
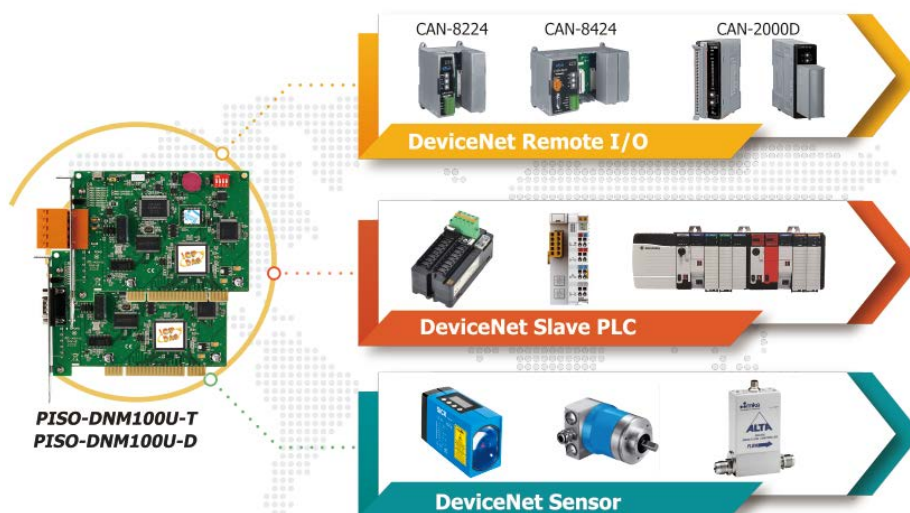
3 Steps Start the Data Collection.

Bulk IO Reading and Writing

Write all Output data

Read all Input data

Output Data

Input Data

Master Built-in CPU

Real-time scanning all I/O devices

■ Specifications

Model Name	PISO-DNM100U-D	PISO-DNM100U-D
Bus Interface		
Type	Universal PCI supports both 5 V and 3.3 V PCI bus	
Board No.	By DIP switch	
CAN Interface		
Controller	NXP SJA1000T with 16 MHz clock Microprocessor inside with 80186 80MHz	
Transceiver	NXP 82C250	
Channel number	1	
Connector	9-pin male D-Sub (CAN_GND, CAN_L, CAN_SHLD, CAN_H, N/A for others)	5-pin screwed terminal block (CAN_L, CAN_SHLD, CAN_H, N/A for others)
Baud Rate (bps)	125 k, 250 k, 500 k	
Transmission Distance (m)	Depend on baud rate (for example, max. 1000 m at 50 kbps)	
Isolation	3000 V_{DC} for DC-to-DC, 2500 Vrms for photo-couple	
Terminal Resistor	Jumper for 120 Ω terminal resistor	
Specification	ISO-11898-2, CAN 2.0A and CAN 2.0B	
Protocol	DeviceNet Volumn I ver2.0, Volumn II ver2.0	
LED		
Round LED	Green LED, Red LED	
Software		
Driver	Windows 2K/XP/7/8 (32-bit/64-bit OS)	
Library	VB 6.0, VC++ 6.0, BCB 6.0, Visual Studio .NET	
Power		
Power Consumption	300 mA @ 5 V	
Mechanism		
Dimensions	138mm x 22mm x 105mm (W x L x H)	
Environment		
Operating Temp.	0 ~ 60 ℃	
Storage Temp.	-20 ~ 70 ℃	
Humidity	5 ~ 85% RH, non-condensing	

■ Application

PISO-DNM100U-T
PISO-DNM100U-D

■ Ordering Information

PISO-DNM100U-D	1 Port Intelligent DeviceNet Master Board for 9-pin male D-Sub connector.
PISO-DNM100U-T	1 Port Intelligent DeviceNet Master Board for 5-pin screwed terminal connector.