



## I-7232D CANopen / Modbus RTU Gateway

### I-7232D

#### Introduction

The I-7232D is one of ICP DAS CAN bus products. The device allows a CANopen master to access the Modbus slave devices on some Modbus RTU network. Modbus RTU protocol is a kind of application protocol based on RS485 network. Therefore, this gateway provides an easy way to connect Modbus RTU devices with CANopen network. These Modbus RTU devices may be a PLC, a Modbus RTU sensor, ICPDAS M-7000 series modules and so fourth. In addition, we also provide the utility software for users to configure the I-7232Ds parameters and build the EDS file for CANopen master interface. Users can easily apply Modbus RTU devices in CANopen applications with the I-7232D.

#### Applications

- Control System
- Building Automation
- Factory Automation
- Distributed data acquisition

#### Features

- NMT: Slave
- Error Control: Node Guarding protocol
- Node ID: Setting by CAN\_MRU Utility Software
- PDO Modes: Event-triggered, remotely requested, cyclic and acyclic SYNC
- PDO Mapping: variable
- No of SDOs: 1 server, 0 client
- Emergency Message: Yes
- CANopen Version: DS-301 v4.01
- Device Profile: DSP-401 v2.0
- CAN Baud Rate setting by utility: 10K, 20K, 50K, 125K, 250K, 500K, 800K, 1M bpse
- Modbus Baud Rate setting by utility: 1200, 2400, 4800, 9600, 19200, 38400, 57600, or 115200 bps
- RUN, ERR, and OVERRUN LED indicators
- Support max 10 Modbus RTU I/O series modules
- Provide friendly Utility for parameters configuration.
- 7-segment LED to show Node ID, CAN baud rate and RS-485 baud rate

#### Utility

The I-7232D Utility helps users to configure the devices, and has following features:

- Support CANopen node ID, baud rate setting
- Provide Modbus RTU parameters setting
- Display Modbus RTU devices configuration
- Show CANopen application objects configuration
- Produce EDS file Dynamically

#### Modules Support

Only the following Modbus RTU commands are supported by the gateway.

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

<b>04</b>	Read Input Registers	Read the binary contents of input registers in the slave
<b>06</b>	Preset Single Register	Preset an integer value into a single register
<b>15</b>	Force Multi Coils	Forces each coil in the sequence of coils to either ON or OFF

## Specifications

<b>CPU</b>	80188, 40MHz
<b>Flash</b>	512K bytes
<b>SRAM</b>	512K bytes
<b>EERROM</b>	2K bytes (Can upto 128K bytes or change to 2K/8K FRAM)
<b>NVRAM</b>	32 bytes
<b>Real Time Clock</b>	16 bit
<b>Watch Dog Timer</b>	CPU Built-in
<b>COM1</b>	RS232: TXD,RXD,RTS,CTS,GND
<b>COM2</b>	RS485: D2+, D2-
<b>Communication Speed</b>	115200 max
<b>CAN Controller</b>	Phillip SJA1000T CAN Controller
<b>CAN Transceiver</b>	Phillip 82C250/251CAN Transceiver
<b>LED Directors</b>	ERR, RUN, OVERRUN
<b>Display</b>	7-segment LED: 5digit
<b>Isolated</b>	2500Vrms on CAN side
<b>Power Supply</b>	20W unregulated +10VDC to +30Vdc
<b>Operating Temp</b>	-25C to 75C
<b>Storage Temp</b>	-30C to 85C
<b>Humidity</b>	5 ~ 95%
<b>Dimensions</b>	133 x 72 x 33 mm

## Ordering Information

<b>I-7232D</b>	CANopen Slave / Slave / Modbus RTU Master Gateway
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