

# CAN-2022C

CANopen Slave Module with 2-channel Isolated AI, 2-channel Isolated AO, 4-channel Isolated DI, 4-channel Isolated DO

## Features

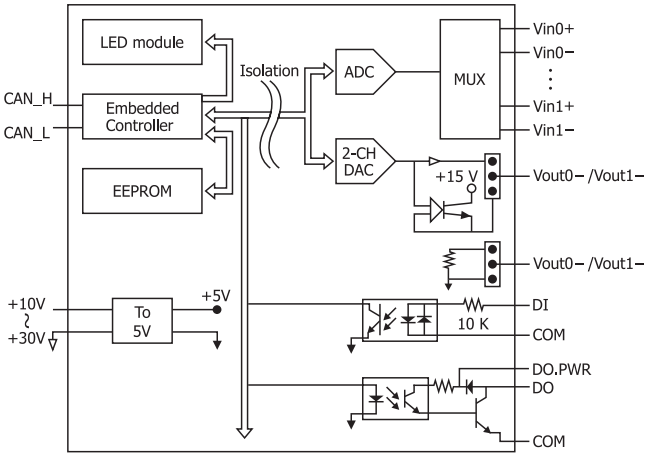
- NMT Slave
- Passed the validation of CiA CANopen Conformance Test tool
- ESD Protection 4KV Contact for each channel
- Support Power supply 10 ~30 VDC
- Support CiA-301 v4.02, CiA-401 v2.1
- Provide default EDS file

## Introduction

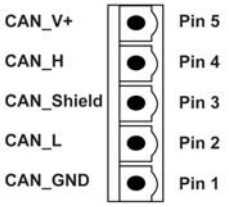
CANopen is one kind of the network protocols based on the CAN bus and mainly used for embedded network of machine control, such as industrial machine control , aircraft engines monitoring, factory automation, medical equipment control, remote data acquisition, environmental monitoring, and packaging machines control, etc.

CAN-2022C module follows the CiA-301 version 4.02 and CiA-401 version 2.1. You can access the analog/digital I/O status and set the configuration by using standard CANopen protocol. CAN-2022C has passed the validation of the CiA CANopen conformance test tool. Therefore, you can use it with standard CANopen master easily by applying the EDS file. CAN-2022C has 2 analog input channels, 2 analog output channels, 4 digital input channels and 4 digital output channel. By owing to the CANopen masters of ICP DAS, you can quickly build a CANopen network to approach your requirements.

## Internal I/O Structure




## CAN Pin & Baud Rate Rotary



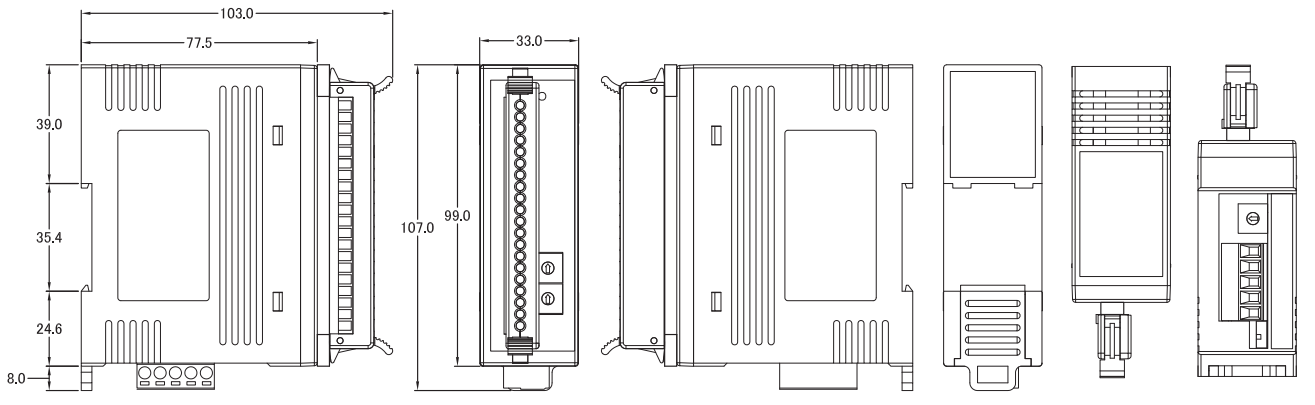




Baud rate rotary switch

| Switch | Baud Rate |
|---|---|
| 0 | 10 kbps |
| 1 | 20 kbps |
| 2 | 50 kbps |
| 3 | 125 kbps |
| 4 | 250 kbps |
| 5 | 500 kbps |
| 6 | 800 kbps |
| 7 | 1000 kbps |

## Dimensions (Units: mm)

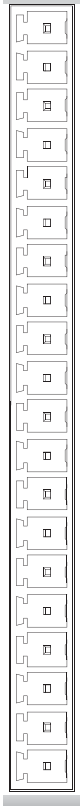



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## Specifications

| | |
|---|---|
| **CAN Interface** | |
| Connector | 5-pin screwed terminal block (CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+) |
| Baud Rate(bps) | 10k,20k,50k,125k,250k500k,800k,1M |
| Terminal Resistor | Switch for 120Ω terminal resistor |
| Node ID | 1~99 selected by rotary switch |
| Protocol | CANopen CiA301 ver4.02,CiA-401 ver2.1 |
| No. of PDOs | 10Rx,10Tx(Support Dynamic PDO) |
| PDO Mode | Event Triggered,Remotely requested,Cyclic and acyclic SYNC |
| **Power** | |
| Input range | Unregulated +10 ~ +30 VDC |
| Power Consumption | 1.8W |
| **LED** | |
| Round LED | PWR LED, RUN LED, ERR LED |
| I/O LED | 2 LEDs as Analog Input,2 LEDs as Analog Output,4 LEDs as Digital Input, 4 LEDs as Digital Output,and 1 LED as terminal resister indicator |
| **Mechanism** | |
| Dimensions | 33 mm x 99 mm x78 mm(WxLxH) |
| **Environment** | |
| Operating Temp | -25 ~ 75 °C |
| Storage Temp | -30 ~ 80 °C |
| Humidity | 5~ 95% RH, non-condensing |
| **Analog Input** | |
| Input Channels | 2(Differential) |
| Input Type | ±10V, ±5V, ±2.5V, ±1.25V, ±1V, ±500mV, ±250mV |
| Sampling Rate | 60 Samples/Sec.(Total) |
| Zero Drift | +/-10 uV/°C |
| Span Drift | +/-25 ppm/ °C |
| Common Mode Rejection | 86 dB Min |
| Normal Mode Rejection | 100 dB |
| Resolution | 16-bit |
| Over voltage protection | 240 Vrms |
| Individual channel configuration | Yes |
| **Analog Output** | |
| Output channels | 2 |
| Output Type | +0V ~ +5V, +/-5V, +0 V ~ +10V,+/-10V |
| Resolution | 12-bit |
| Accuracy | +/-0.1% of FSR |
| Voltage Output Capability | 10 V @ 20 mA |
| Current Load Resistance | 500 Ω |
| Power-on value | Yes |
| Safe value | Yes |
| **Digital Output** | |
| Output channels | 4 |
| Output Type | Isolated Open Collector(Sink) |
| Max Load currrent | 700 Ma/channel Max. |
| Load Voltage | +3.5 VDC ~ +50 VDC |
| Over voltage protection | 60VDC |
| Overload protection | Yes |
| Short Circuit protect | Yes |
| Power-on value | Yes,Programmable |
| Safe value | Yes,Programmable |
| **Digital Input** | |
| Input channels | 4 |
| Input Type | Wet contact(Sink) |
| On Voltage Level | +3.5 VDC ~ 30 VDC |
| Off Voltage Level | +1 VDC Max. |
| Input Impedance | 10 KΩ, 0.66W |
| Over voltage protection | 70VDC |

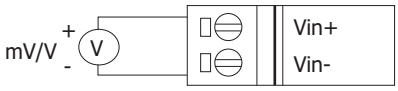
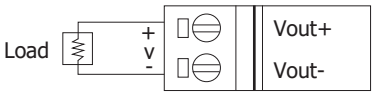
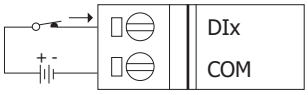
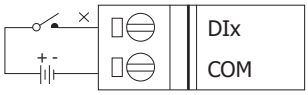
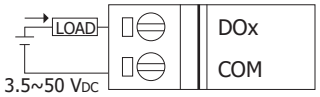
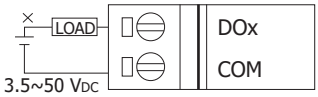
## Pin Assignments



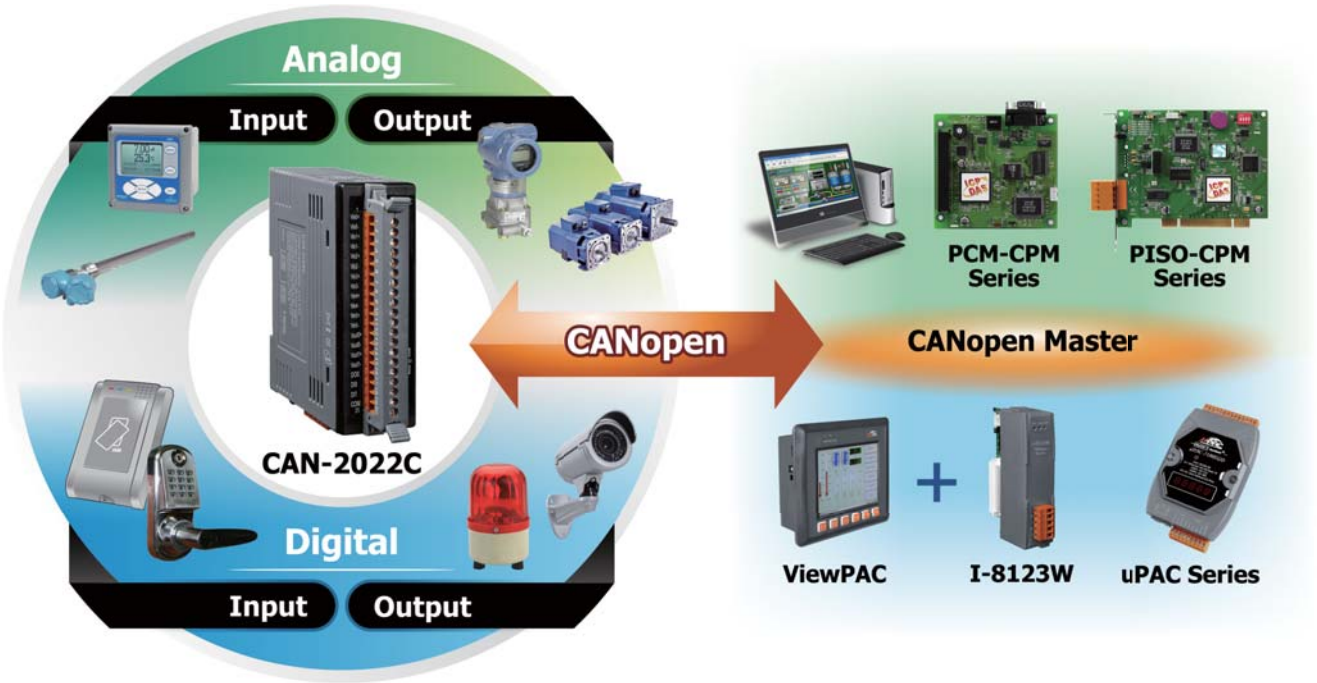
| Terminal No. | Pin Assignment |
|---|---|
| 01 | Vin0+ |
| 02 | Vin0- |
| 03 | Vin1+ |
| 04 | Vin1- |
| 05 | Vout0+ |
| 06 | Vout0- |
| 07 | Vout1+ |
| 08 | Vout1- |
| 09 | N/A |
| 10 | N/A |
| 11 | DI0 |
| 12 | DI1 |
| 13 | DI2 |
| 14 | DI3 |
| 15 | COM |
| 16 | DO0 |
| 17 | DO1 |
| 18 | DO2 |
| 19 | DO3 |
| 20 | GND |

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## Wire Connections

<table>
<tr><td colspan="3">Voltage Input</td></tr>
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<tr><td colspan="3">Voltage Output</td></tr>
<tr><td colspan="3">
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<tr><td>Digital Input/Cpimter</td><td>ON State<br>Readback as 1</td><td>OFF State<br>Readback as 0</td></tr>
<tr><td>Wet Contact<br>(Sink)</td><td>
</td><td>
</td></tr>
<tr><td>Digital Output</td><td>ON State<br>Readback as 1</td><td>OFF State<br>Readback as 0</td></tr>
<tr><td>Open Collector<br>(Sink)</td><td>
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## Applications




## Ordering Information

| | |
|---|---|
| **CAN-2022C CR** | CANopen Slave Module with 2-channel Isolated AI, 2-channel Isolated AO, 4-channel Isolated DI, 4-channel Isolated DO (RoHS) |

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