



# **CAN-2022C**

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

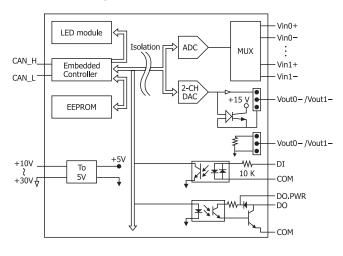
# ■ Reatures ■ NMT Slave ■ Provide Pair-Connect function ■ Passed the validation of CiA CANopen Conformance Test tool ■ ESD Protection 4KV Contact for each channel ■ Support Power supply 10 ~30 VDC ■ Support CiA-301 v4.02, CiA-401 v2.1 ■ Provide default EDS file

### **■** Introduction

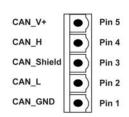
CANopen is one kind of the network protocols based on the CAN bus and mainly used for embedded network of machine control, such as industrial machine control, aircraft engines monitoring, factory automation, medical equipment control, remote data acquisition, environmental monitoring, and packaging machines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



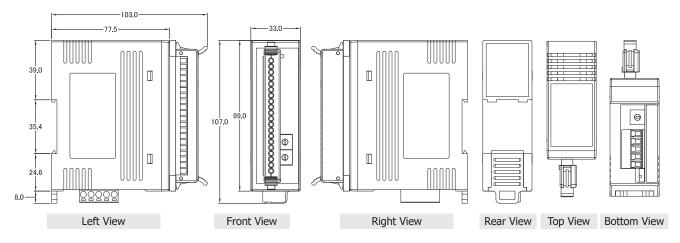
# **■ CAN Pin & Baud Rate Rotary**





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)



# **■ Specifications**

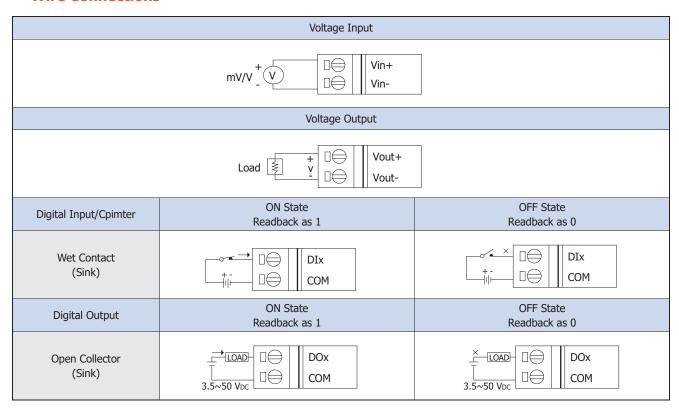
= Specifications		
CAN Interface		
Connector	5-pin screwed terminal block (CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+)	
Baud Rate(bps)	10k,20k,50k,125k,250k500k,800k,1M	
Terminal Resistor	Switch for $120\Omega$ terminal resistor	
Node ID	1~99 selected by rotary switch	
Protocol	CANopen CiA301 ver4.02,CiA-401 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 ℃	
Storage Temp	-30 ~ 80 ℃	
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

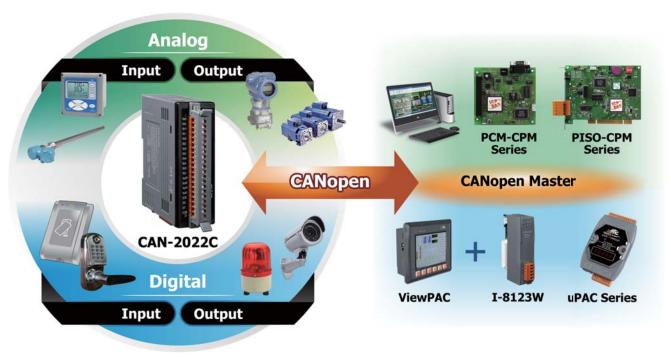
# **■ Pin Assignments**

Tern	ninal 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
7	16	DO0
	17	DO1
	18	DO2
	19	DO3
7	20	GND

### **■** Wire Connections



# **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)