



16-channel Isolated DI module of CANopen Slave

■ Features

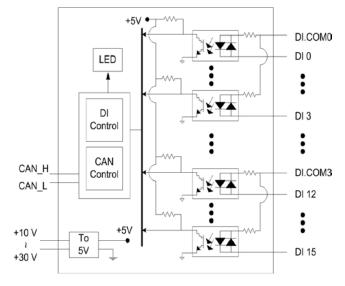
- NMT Slave
- Providing I/O Pair-connection function
- Provide default EDS file
- Passed the validation of CiA CANopen Conformance Test tool
- Support Polarity Input Setting and Save
- Support Dynamic PDO
- Support Application: PNP, NPN, TTL, and Relay Contact
- ESD Protection 4 kV Contact for each channel



Introduction

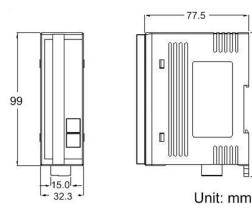
CAN-2053C module follows the DS-301 version 4.02 and DSP-401 version 2.1 and it had passed the validation of the CiA CANopen Conformance Test tool. Therefore, users can use it with standard CANopen master easily by applying the EDS file. CAN-2053C has 16-channel isolated sink/source input and it can be used to various applications, such as PNP, NPN, TTL, relay contact and so forth. By owing to the CANopen masters of ICP DAS or other manufactory, users can quickly build a CANopen network to approach user's requirements.

Internal I/O Structure



107.0

Dimensions

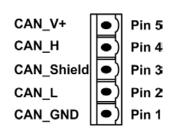


■ I/O Pin & Wire Connection

Terminal No.			Pin Assignment
2	0 }	01	DI.COM
Ľ	0 {	02	DI.0
5	0 }	03	DI.1
5	0 }	04	DI.2
5	0 }	05	DI.3
5	0	06	DI.COM
Ľ.	0 }	07	DI.4
7	0 (08	DI.5
7	0 }	09	DI.6
5	0	10	DI.7
5	0 }	11	DI.COM
C.	0 }	12	DI.8
L.	• }	13	DI.9
5	0 {	14	DI.10
C.	0	15	DI.11
5	0	16	DI.COM
Ľ.	0 }	17	DI.12
Ľ.	0	18	DI.13
Ľ.	- }	19	DI.14
1	0 (20	DI.15

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0	
Relay Contact	Relay On	Relay Off	
	+ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	+ □ □ □ □ DI.COM □ DI X	
TTL/CMOS Logic	30 V > Voltage > 3.5 V	Voltage < 1 V	
	Logic Power O DI.COM Logic Level Low DI X	Logic Power DLogic Level Low DI X	
NPN Output	Open Collector On	Open Collector Off	
	DI.COM DI X	OFFE M □ □ DI.COM	
PNP Output	Open Collector On	Open Collector Off	
	DI.COM DI X	OFF N DI X	

CAN Pin & Baud Rate Rotary





Baud rate rotary switch

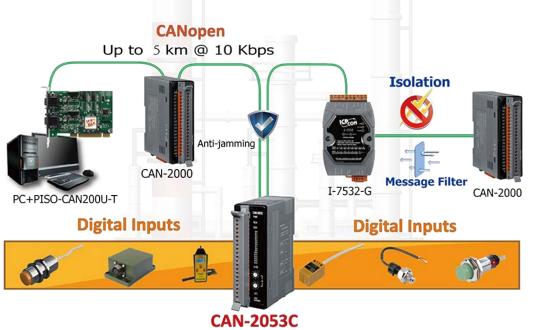
Switch Value	Pair- connection	Baud Rate
0	8	10 kbps
1	9	20 kbps
2	Α	50 kbps
3	В	125 kbps
4	С	250 kbps
5	D	500 kbps
6	E	800 kbps
7	F	1000 kbps



Specifications

Specifications				
CAN Interface				
Connector	5-pin screwed terminal block (CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+)			
Baud Rate (bps)	10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M			
Terminal Resistor	Switch for 120 Ω terminal resistor			
Node ID	1~99 selected by rotary switch			
Protocol	CANopen DS-301 ver4.02, DS-401 ver2.1			
No. of PDOs	10 Rx, 10 Tx (support dynamic PDO)			
PDO Mode	Event Triggered, Remotely requested, Cyclic and acyclic SYNC			
Error Control	Node Guarding protocol and Heartbeat Producer protocol			
Emergency Message	Yes			
DI Interface				
Channels	16 (Sink/Source)			
ON Voltage Level	+3.5 ~ +30 V _{DC}			
OFF Voltage Level	+1 V _{DC} Max.			
Input Impedance	3 kΩ, 0.3 W			
Intra-module Isolation	3750 Vrms			
ESD Protection	4 kV Contact for each channel			
LED				
Round LED	PWR LED, RUN LED, ERR LED			
I/O LED	16 LEDs as Digital Input, and 1 LED as terminal resister indicator			
Power				
Input range	Unregulated +10 ~ +30 V _{DC}			
Power Consumption	1.5 W			
Mechanism				
Installation	DIN-Rail			
Dimensions	32.3 mm x 99 mm x 77.5 mm (W x L x H)			
Environment				
Operating Temp.	-25 ~ +75 °C			
Storage Temp.	-30 ∼ +80 °C			
Humidity	10 ~ 90% RH, non-condensing			

Application



Ordering Information

CAN-2053C	CANopen module of 16-channel Isolated Sink/Source Digital Input

ICP DAS CO., LTD Website: https://www.icpdas.com Vol. 2023.09 2/2