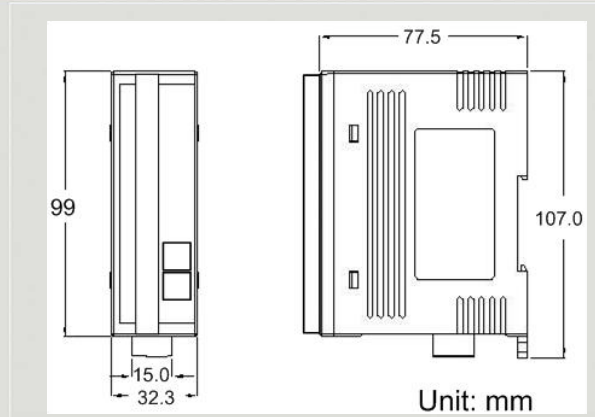# CANopen Series Products

16-channel Isolated DI module of CANopen Slave

CE FC

CAN-2053C

Dimensions

Unit: mm

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.
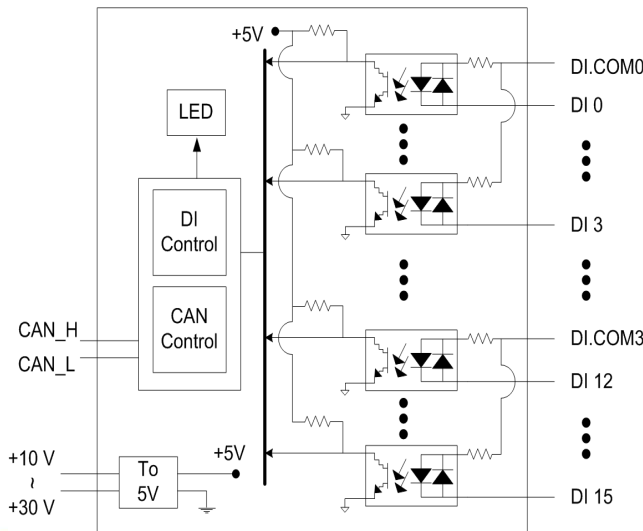
Features

- 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
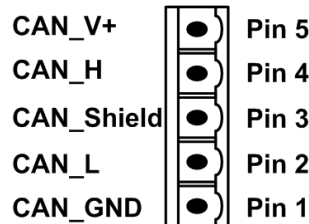- ESD Protection 4 kV Contact for each channel

Internal I/O Structure

I/O Pin & Wire Connection

Terminal No.	Pin Assignment
01	DI.COM
02	DI.0
03	DI.1
04	DI.2
05	DI.3
06	DI.COM
07	DI.4
08	DI.5
09	DI.6
10	DI.7
11	DI.COM
12	DI.8
13	DI.9
14	DI.10
15	DI.11
16	DI.COM
17	DI.12
18	DI.13
19	DI.14
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
TTL/CMOS Logic	30 V > Voltage > 3.5 V	Voltage < 1 V
NPN Output	Open Collector On	Open Collector Off
PNP Output	Open Collector On	Open Collector Off

CAN Pin & Baud Rate Rotary

Baud rate rotary switch

CAN_V+	Pin 5
CAN_H	Pin 4
CAN_Shield	Pin 3
CAN_L	Pin 2
CAN_GND	Pin 1

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

Hardware 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 ℃
Storage Temp.	-30 ~ +80 ℃
Humidity	10 ~ 90% RH, non-condensing

Applications
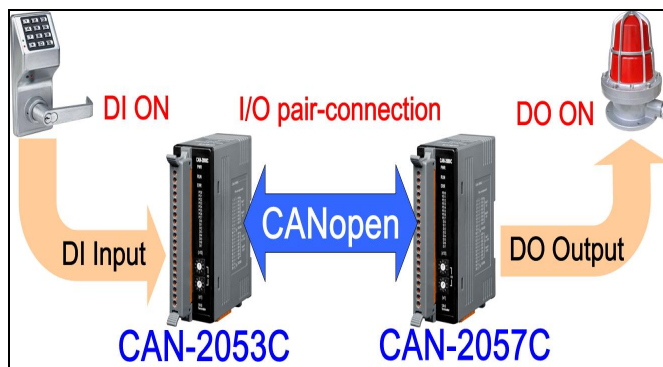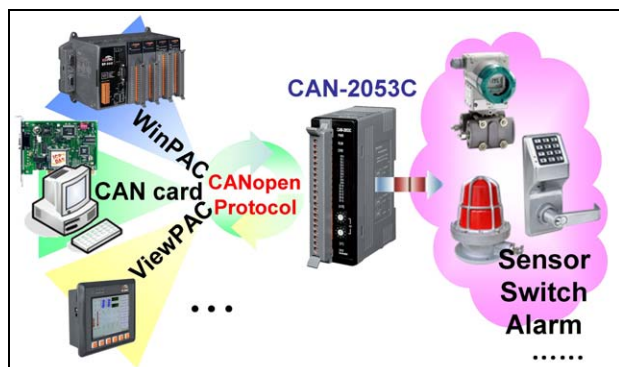
Ordering Information

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