

# CAN-2053C Quick Start

## [ Package List ]



CAN-2053C



Software CD



Screw Driver  
(1C016)



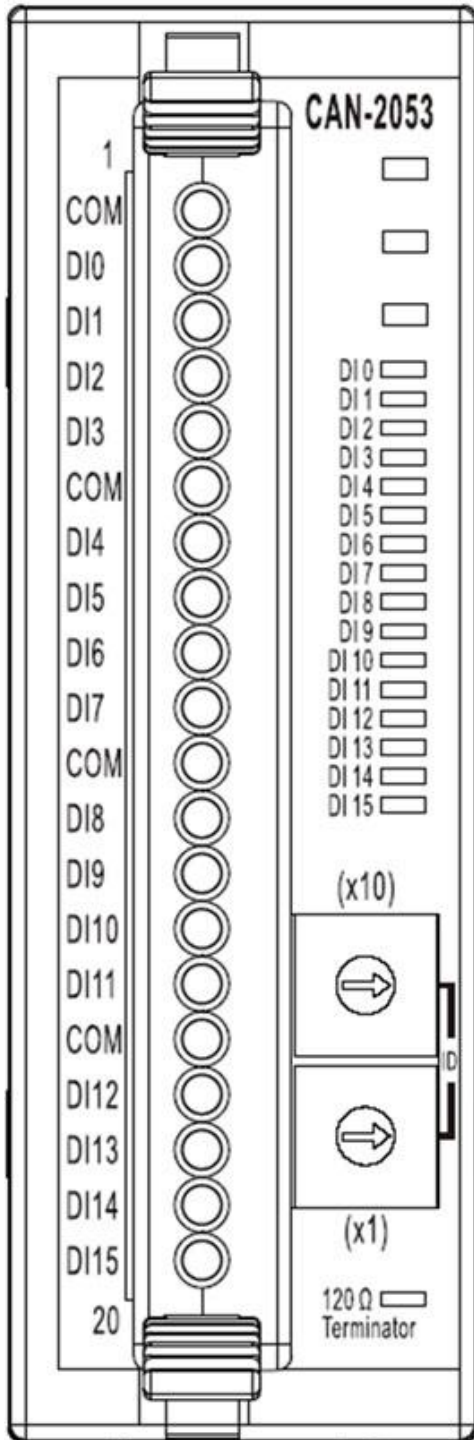
Quick Start

## Hardware Specification

<b>CAN Interface</b>	
CANopen Specification	CiA DS-301 v4.02, DS-401 v2.1
Node ID	1~99 selected by rotary switch
Baud Rate (bps)	10k, 20k, 50, 125k, 250k, 500k, 800k and 1M
Error Control	Node Guarding protocol and Heartbeat Producer protocol
Terminator Resistor	Switch for 120 $\Omega$ terminator resistor
Connector	5-pin screwed terminal block (CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+)
<b>Digital Input</b>	
Channels	16 (Sink /Source)
On Voltage Level	3.5 ~ 30 V <sub>DC</sub>
Off Voltage Level	1 V <sub>DC</sub> Max.
Input Impedance	3 $\Omega$ , 3W
Intra-module Isolation	3750 V <sub>rms</sub>
ESD Protection	+/-4 kV, Contact for each channel
<b>Power</b>	
Input range	Unregulated +10 ~ +30 V <sub>DC</sub>
Power Consumption	1.5 W
<b>Environment</b>	
Operating Temp.	-25 ~ 75 $^{\circ}$ C
Storage Temp.	-30 ~ 80 $^{\circ}$ C
Humidity	10 ~ 90% RH, non-condensing

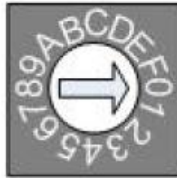
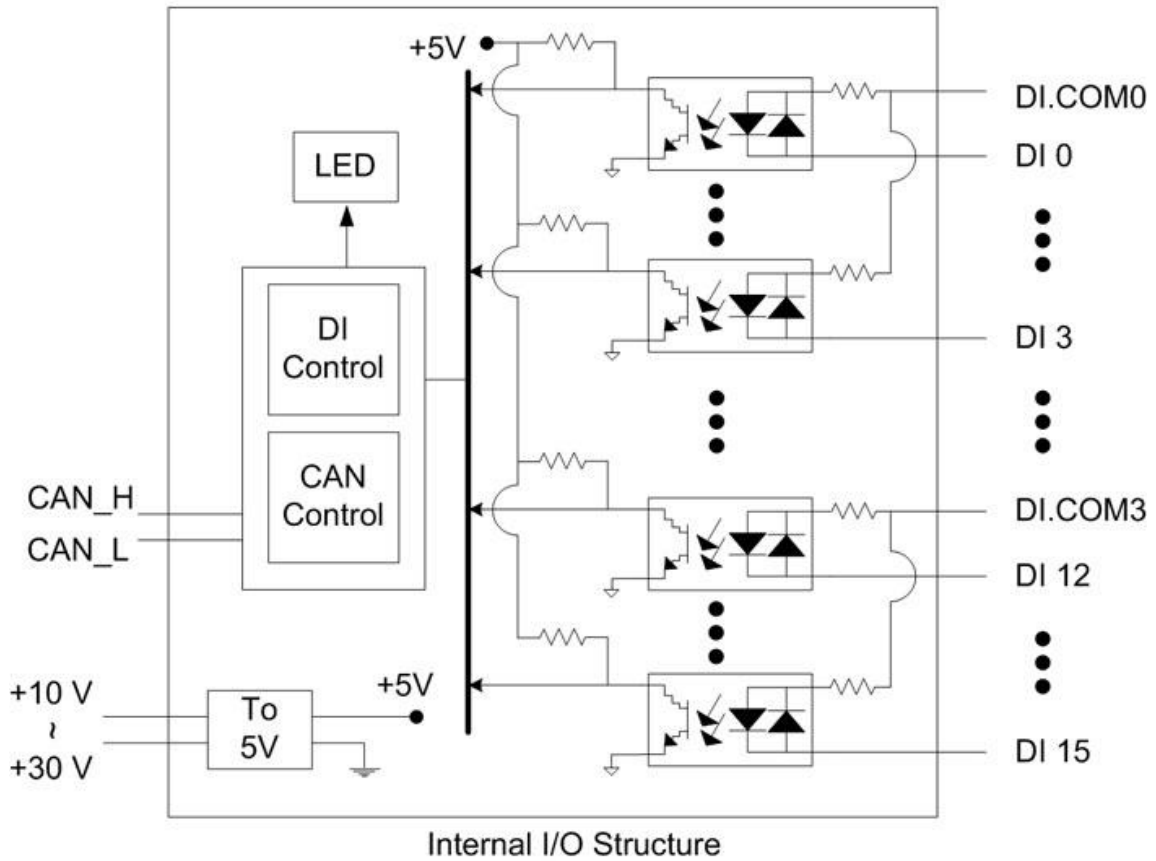
For more information about CAN-2053C, please visit the following website:  
[http://www.icpdas.com/products/Remote\\_IO/can\\_bus/can-2053c.htm](http://www.icpdas.com/products/Remote_IO/can_bus/can-2053c.htm)

## CAN-2053C Pin Assignments



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

## CAN-2053C Internal I/O Structure

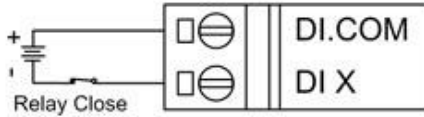
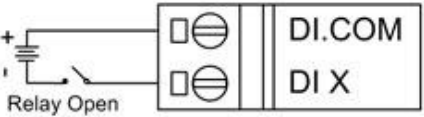
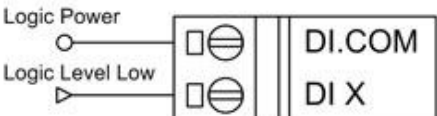
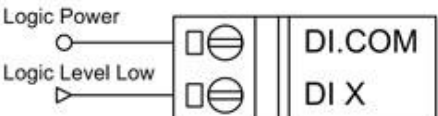
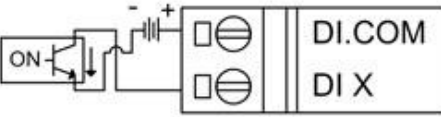
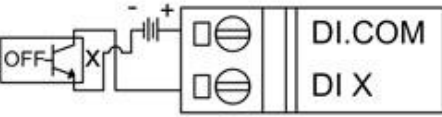
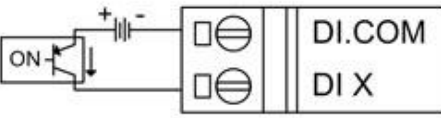
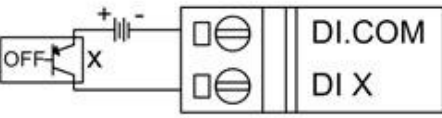


**Baud rate rotary switch**

Rotary Switch Value	Baud rate (k BPS)
0	10
1	20
2	50
3	125
4	250
5	500
6	800
7	1000

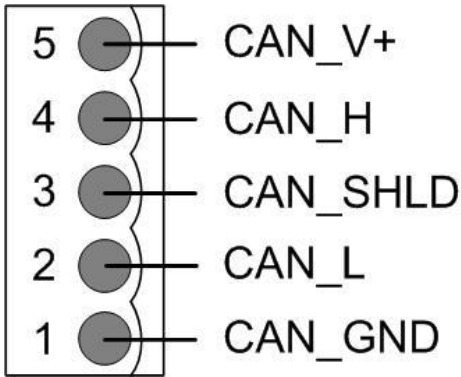
**Baud rate and rotary switch**

## CAN-2053C Wiring Connection Type

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	Voltage > 3.5 V	Voltage < 1 V
		
NPN Output	Open Collector On	Open Collector Off
		
PNP Output	Open Collector On	Open Collector Off
		

**Note:** When connecting to a current source, an optional external 125-Ohm precision resistor is required.

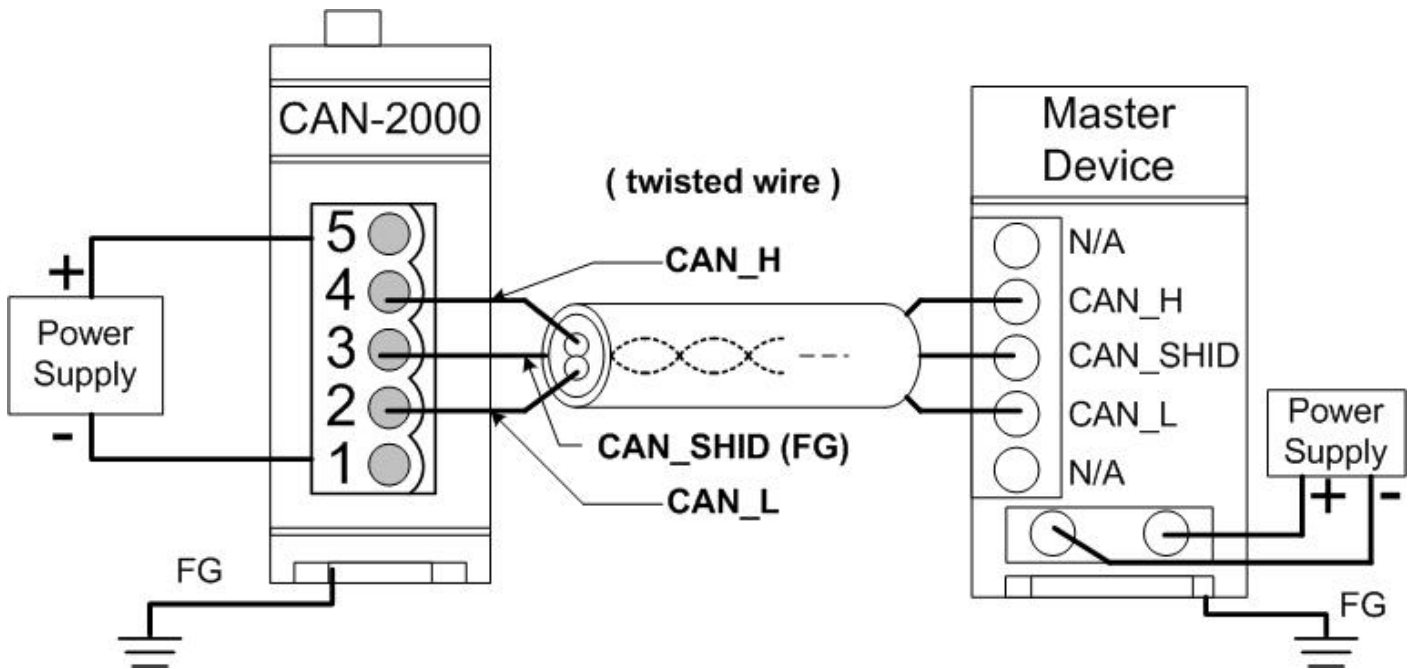
## CAN-2053C CAN Bus Wire Connection



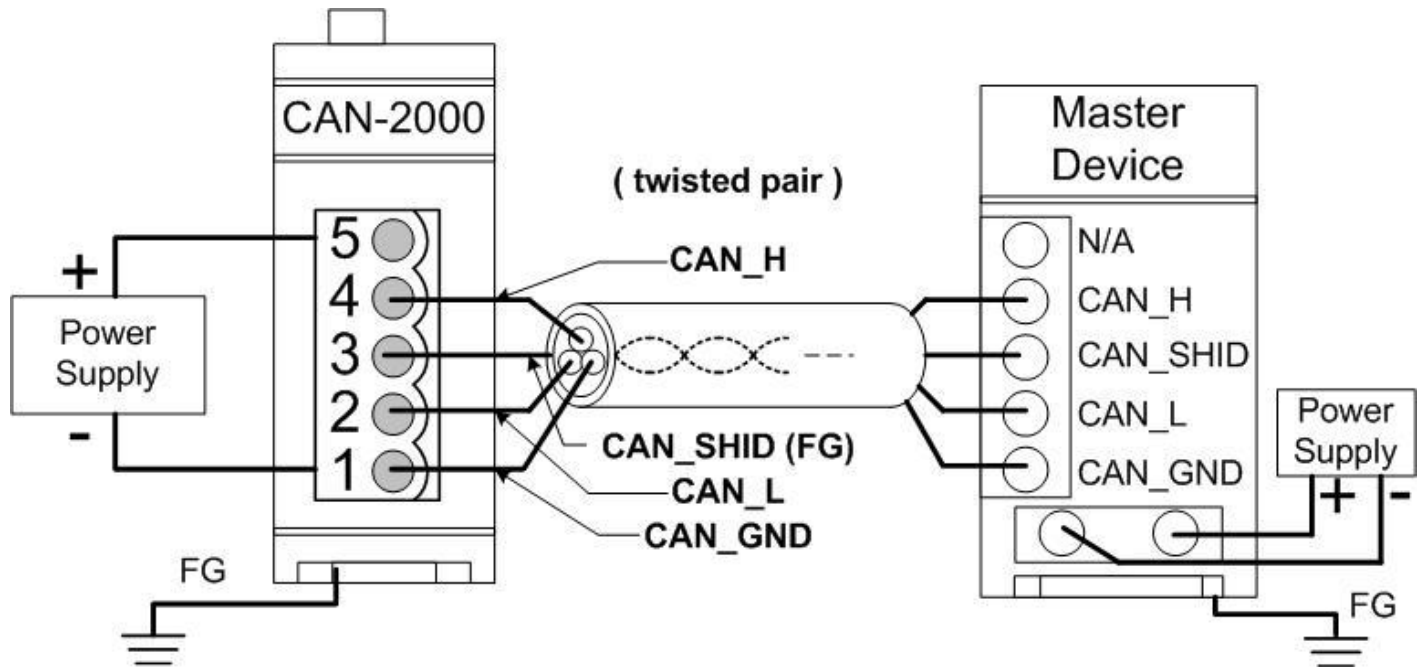
Pin	Signal	Description
5	CAN_V+	Power positive
4	CAN_H	Signal high of CAN Bus line
3	CAN_SHLD	Cable Shield ( <b>FG</b> )
2	CAN_L	Signal low of CAN Bus line
1	CAN_GND	CAN ground

\* CAN\_SHID (FG) is Optional.

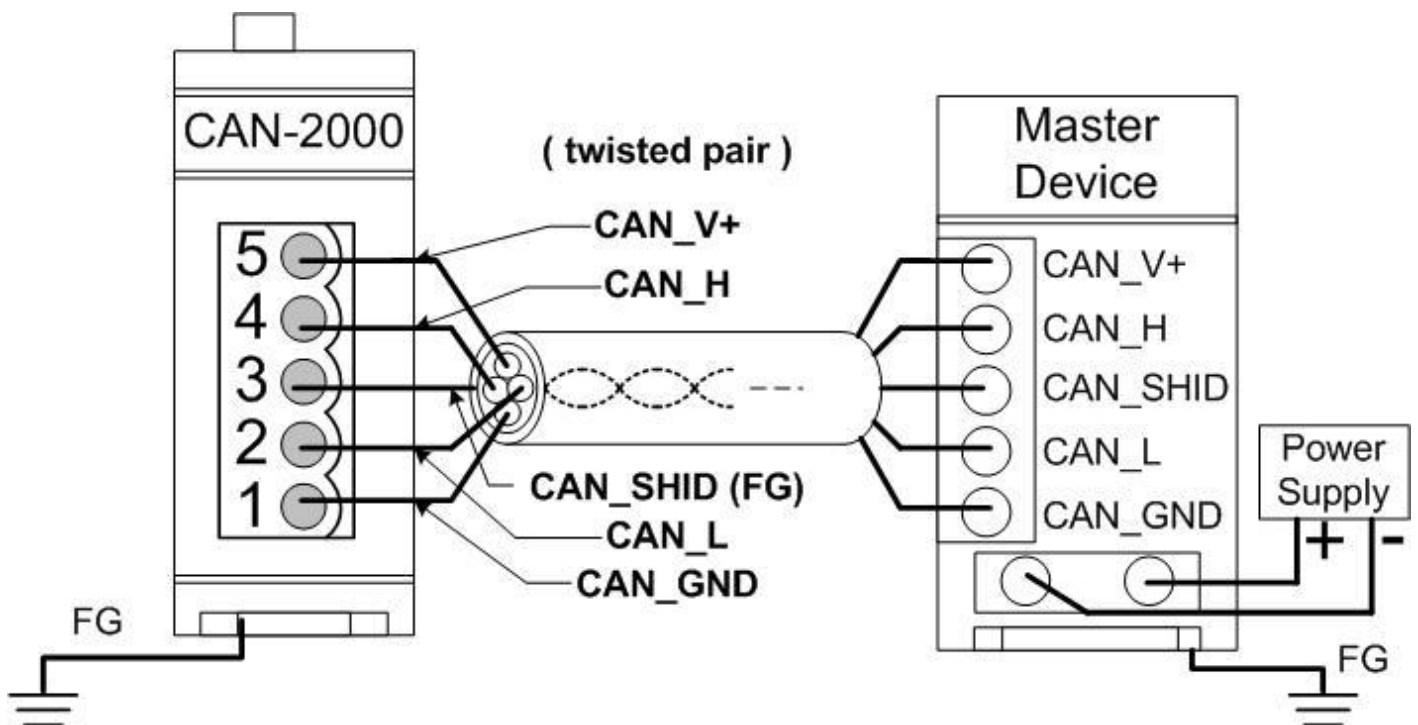
### 2-Wire Connection



### 3-Wire Connection



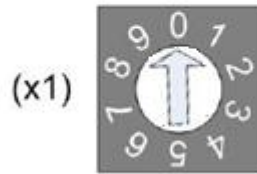
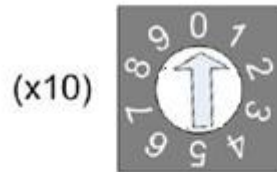
### 4-Wire Connection (The CAN-2000 is powered by the master device)





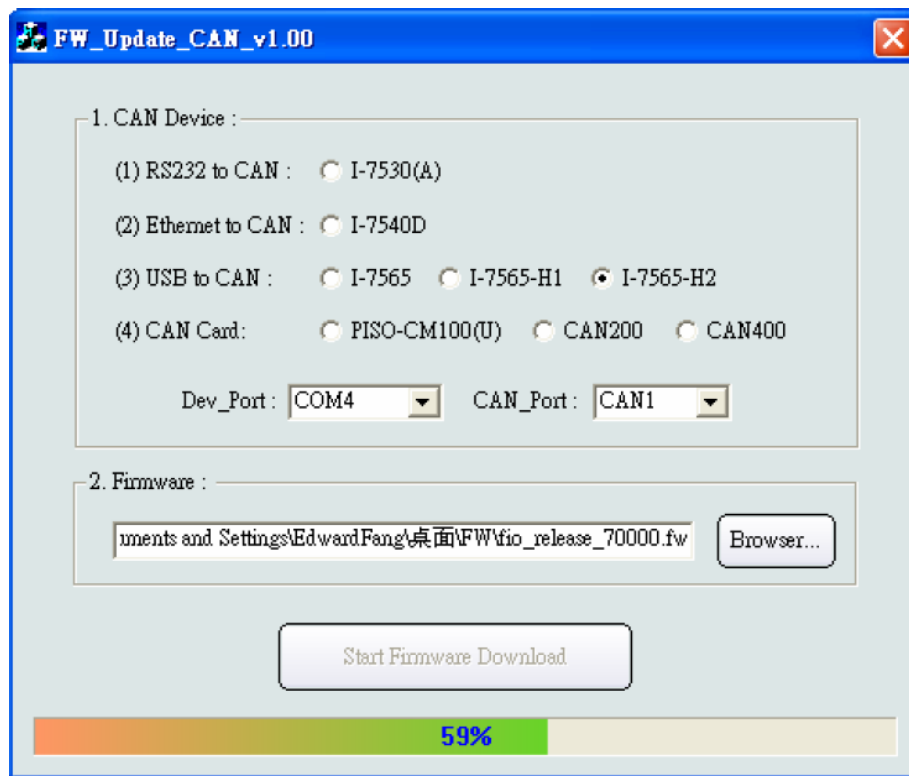
## CAN-2015C Firmware Update

**Step 1 – Set Module to “Bootloader” mode (set Node ID to 00). Then power on the module.**



**Node ID rotary switch**

**Step 2 – Run FW\_Update\_CAN Utility**



**( FW\_Update\_CAN Utility )**

## [1] CAN Device :

The below ICP DAS CAN products are supported by FW\_Update\_CAN utility for firmware update.

- (1) RS232 to CAN : I-7530
- (2) Ethernet to CAN : I-7540D
- (3) USB to CAN : I-7565, I-7565-H1, I-7565-H2
- (4) CAN Card : PISO-CM100(U),  
PISO-/PCM-/PEX-CAN200 / CAN400

Before firmware update, users need to set the below parameters.

- (1) Select CAN hardware interface
- (2) set Dev\_Port or Board\_ID
- (3) set CAN\_Port” number

## [2] Download Firmware :

- (1) Click “**Browser...**” button to choose firmware file, can\_2053c\_xx.fw.
- (2) Click “**Start Firmware Update**” button to start firmware update and it will show the total percentage of firmware update in progress bar. After the firmware update finished, it will show the “Firmware Update Success !!” message.



CAN-2053C firmware Download:

[ftp://ftp.icpdas.com/pub/cd/fieldbus\\_cd/canopen/slave/can-2000c/can-2053c/](ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/canopen/slave/can-2000c/can-2053c/)

FW\_Update\_CAN Utility Download:

[ftp://ftp.icpdas.com/pub/cd/fieldbus\\_cd/canopen/slave/can-2000c/tools/](ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/canopen/slave/can-2000c/tools/)