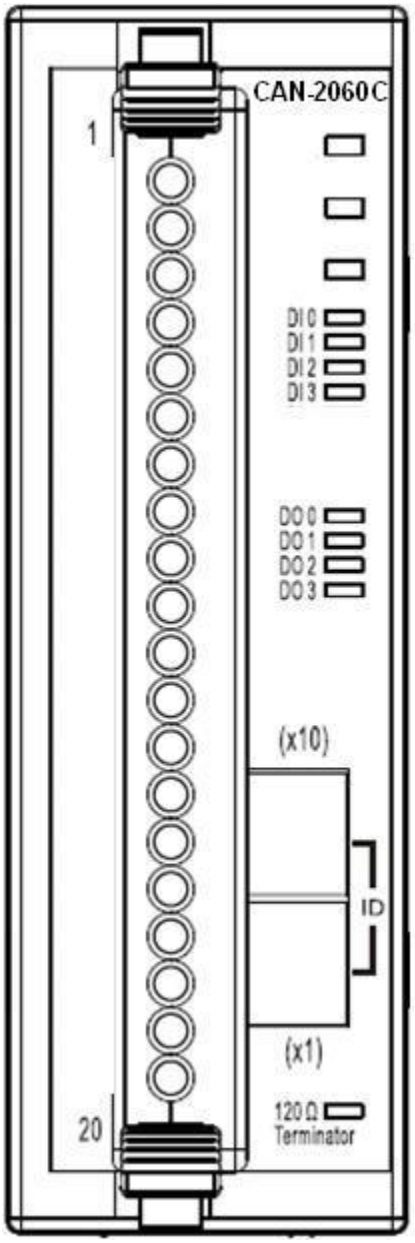
# CAN-2060C Quick Start

# Hardware Specification

| | |
|---|---|
| **CAN Interface** | |
| CANopen Specification | CiA-301 v4.02, CiA -401 v2.1 |
| No. of PDOs | 10 Rx, 10 Tx (Support dynamic PDO) |
| PDO Mode | Event-triggered, Remotely-requested, Cyclic and acyclic SYNC |
| 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 Ω terminator resistor |
| Connector | 5-pin screwed terminal block<br>(CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+) |
| **Digital Input** | |
| Channels | 4 (Sink/Source) |
| On Voltage Level | 3.5 ~30 $V_{DC}$ |
| Off Voltage Level | 1 $V_{DC}$ Max. |
| Response Time | 250 us |
| ESD Protection | +/-4 kV, Contact for each channel |
| **Relay Output** | |
| Channels | 4 |
| Type | Form A (SPST-NO) |
| Max. Load Current | 5A per channel |
| Operate Time | 10ms Max |
| Release Time | 5ms Max |
| **LED** | |
| Status LED | PWR LED, RUN LED, ERR LED |
| Terminal Resister LED | Terminal Resister Indicator |
| DI/DO LED | 4 LEDs as digital input indicators<br>4 LEDs as relay output indicators |
| **Power** | |
| Input range | Unregulated +10 ~ +30 $V_{DC}$ |
| Power Consumption | 2.0 W |
| **Environment** | |
| Operating Temp. | -25 ~ 75 ℃ |
| Storage Temp | -30 ~ 80 ℃ |
| Humidity | 10 ~ 90% RH, non-condensing |

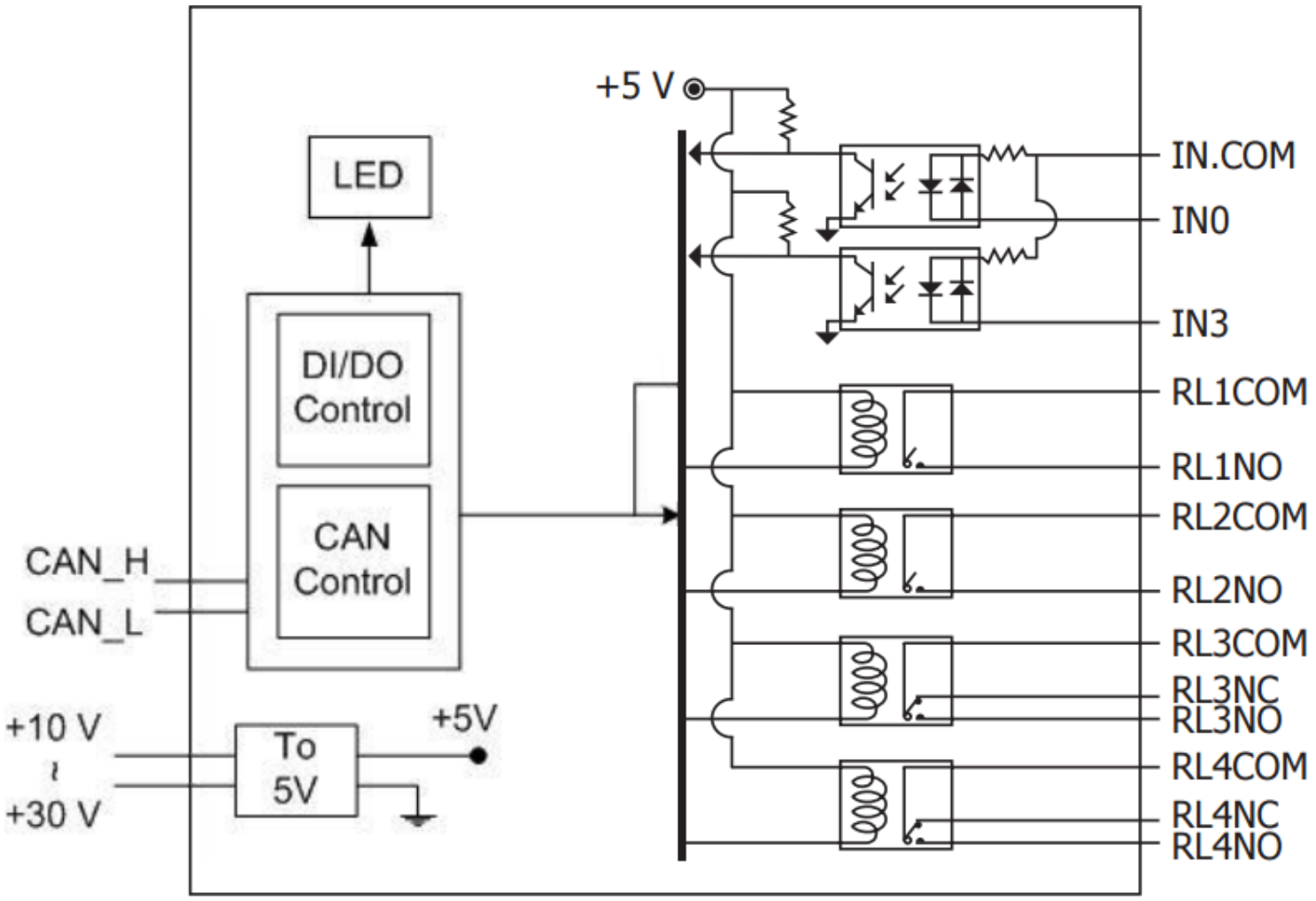
**For more information about CAN-2060C, please visit the following website:**
http://www.icpdas.com/products/Remote_IO/can_bus/CAN-2060C.htm

# CAN-2060C Pin Assignments

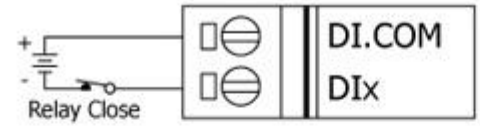
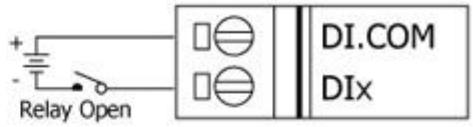
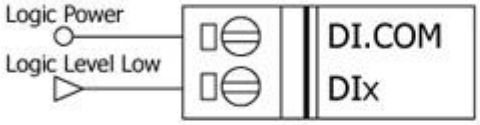
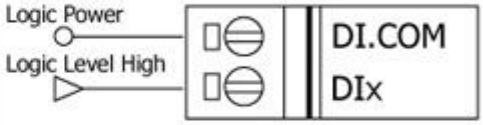
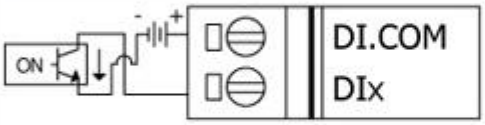
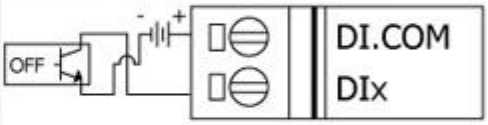
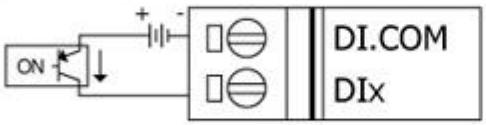
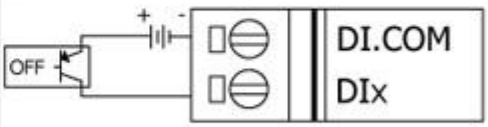


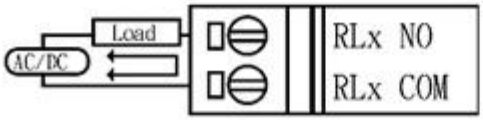
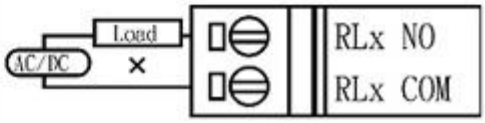

| Terminal No. | Pin Assignment |
|---|---|
| 01 | DI.COM |
| 02 | DI0 |
| 03 | DI1 |
| 04 | DI2 |
| 05 | DI3 |
| 06 | GND |
| 07 | |
| 08 | NO0 |
| 09 | COM0 |
| 10 | NO1 |
| 11 | COM1 |
| 12 | NO2 |
| 13 | COM2 |
| 14 | NO3 |
| 15 | COM3 |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |

## CAN-2060C Internal I/O Structure

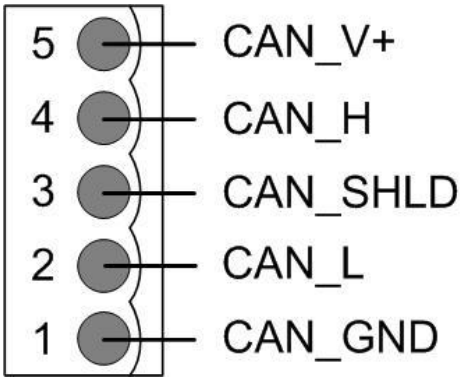


# CAN-2060C Wiring Connection Type

| Input Type Wet Contact | ON State LED ON | OFF State LED OFF |
|---|---|---|
| Relay Contact | Relay ON | Relay OFF |
| |  |  |
| TTL/CMOS Logic | Voltage > 10 V | Voltage < 4 V |
| |  |  |
| NPN Output | Open Collector ON | Open Collector OFF |
| |  |  |
| PNP Output | Open Collector ON | Open Collector OFF |
| |  |  |

| Output Type | ON State LED ON | OFF State LED OFF |
|---|---|---|
| Relay | Relay ON | Relay OFF |
| |  |  |

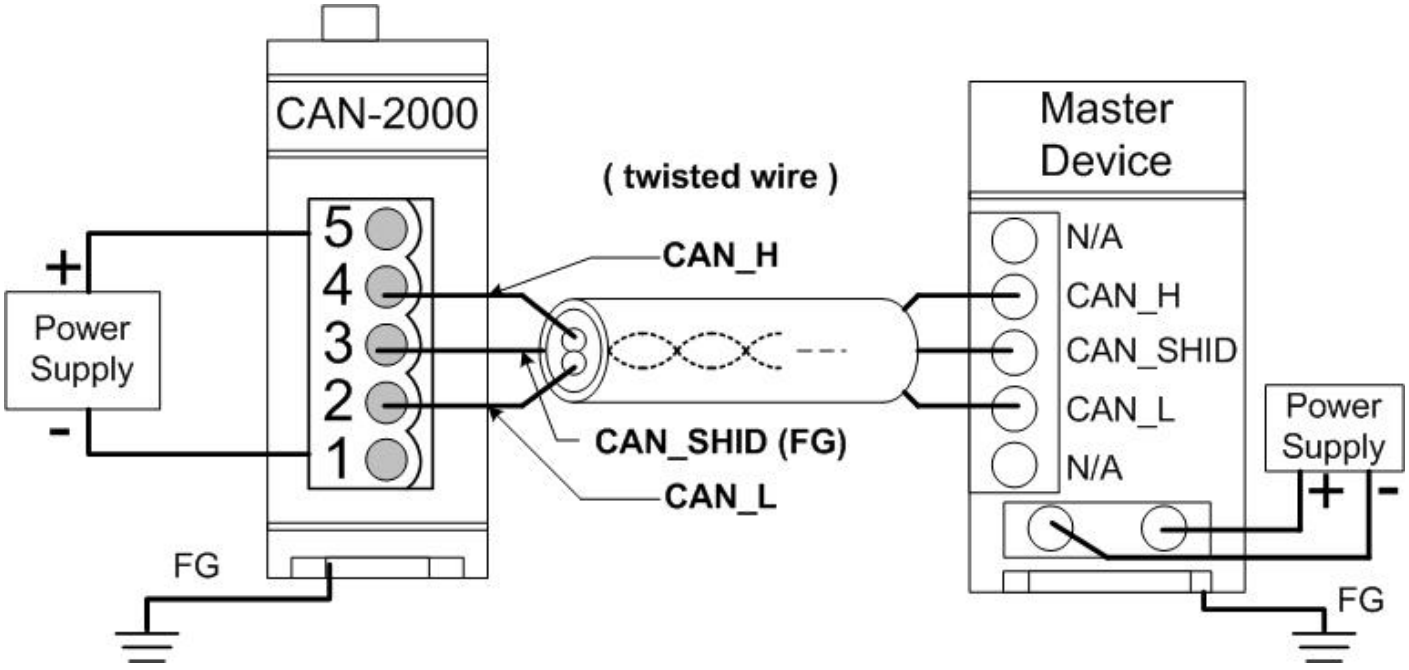
## CAN-2060C CAN Bus Wire Connection



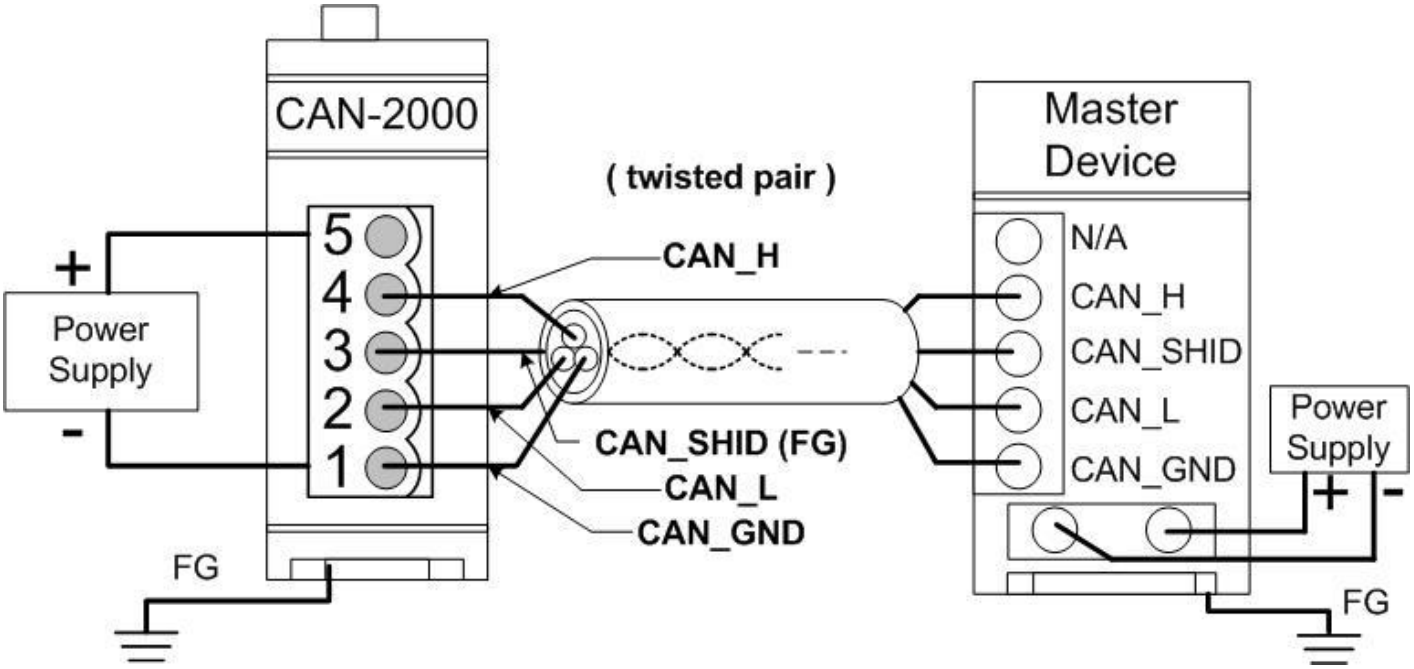

| Pin | Signal | Description |
|---|---|---|
| 5 | CAN_V+ | Power positive |
| 4 | CAN_H | Signal high of CAN Bus line |
| 3 | CAN_SHLD | Cable Shield ***(FG)*** |
| 2 | CAN_L | Signal low of CAN Bus line |
| 1 | CAN_GND | CAN ground |

*** CAN_SHID (FG) is Optional.**

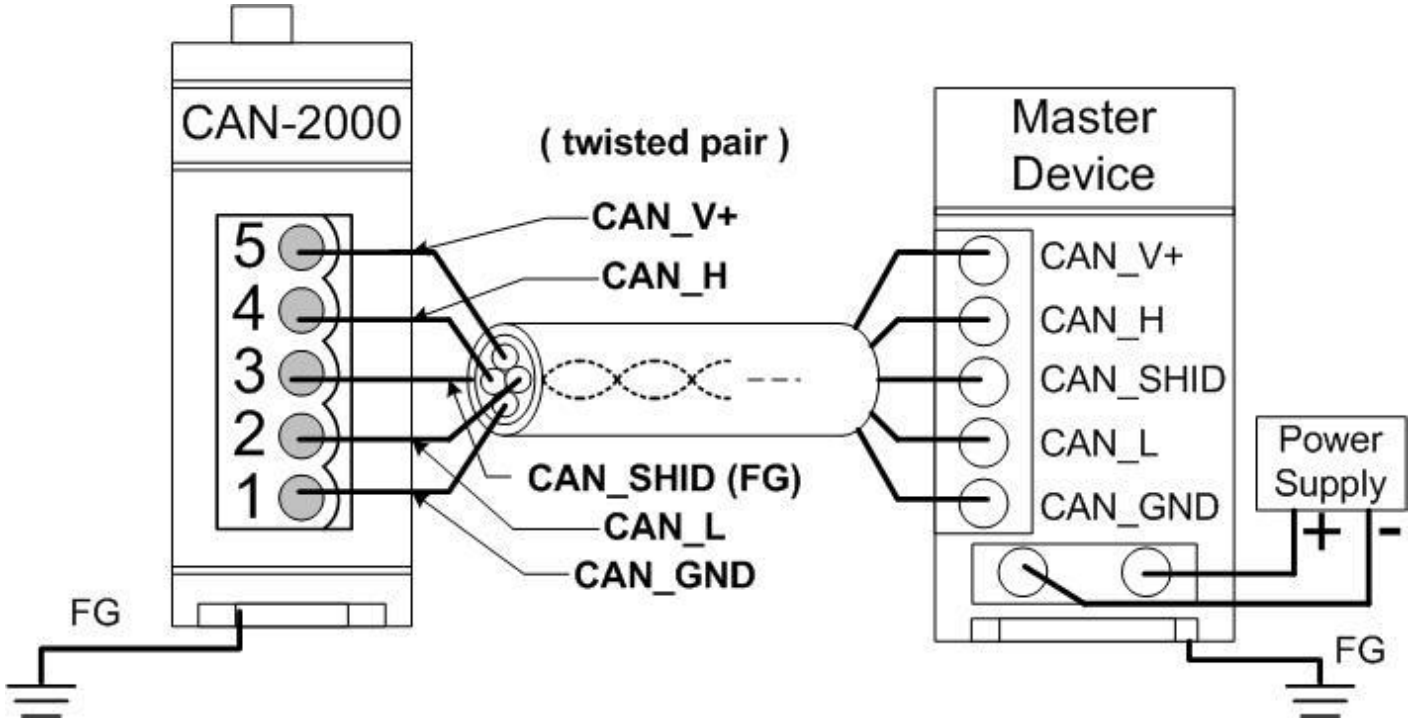
## 2-Wire Connection



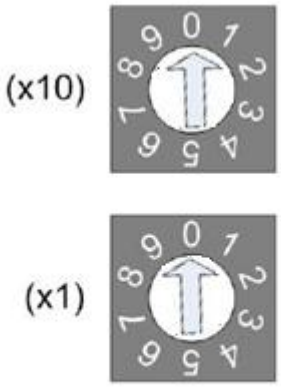
## 3-Wire Connection




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

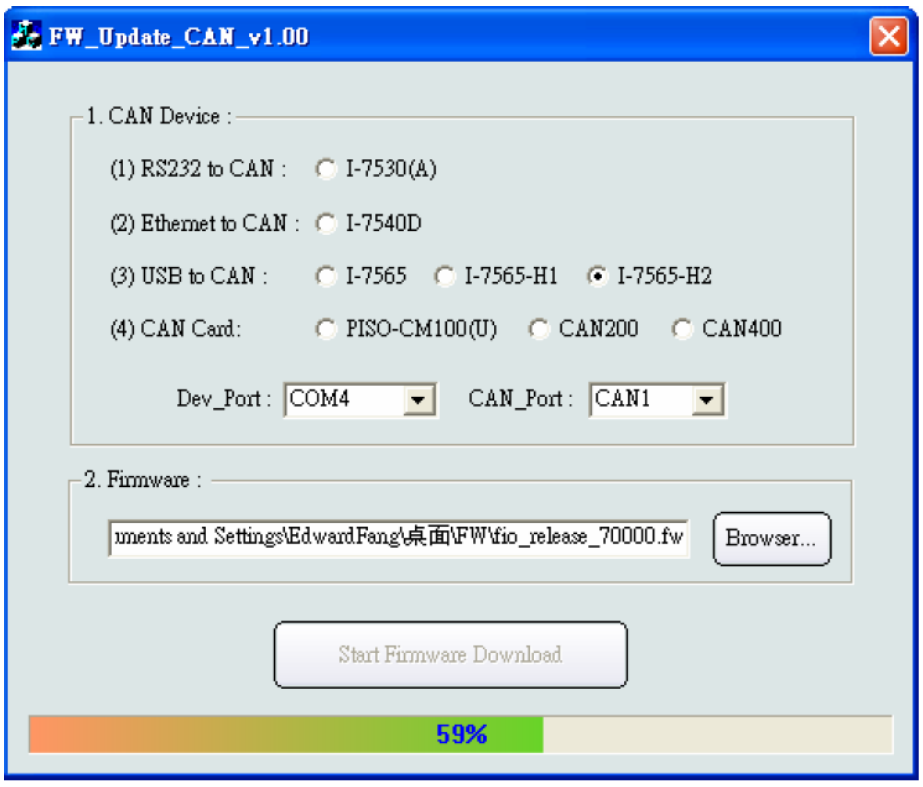


**Step 1 – Set Module to "Bootloader" mode (set Node ID to 00, Baud rate to F). Then power on the module.**




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_2060c_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-2060C firmware Download:

ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/canopen/slave/can-2000c/CAN-2060C/

FW_Update_CAN Utility Download:

ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/canopen/slave/can-2000c/tools/