

# CAN-2017C Quick Start

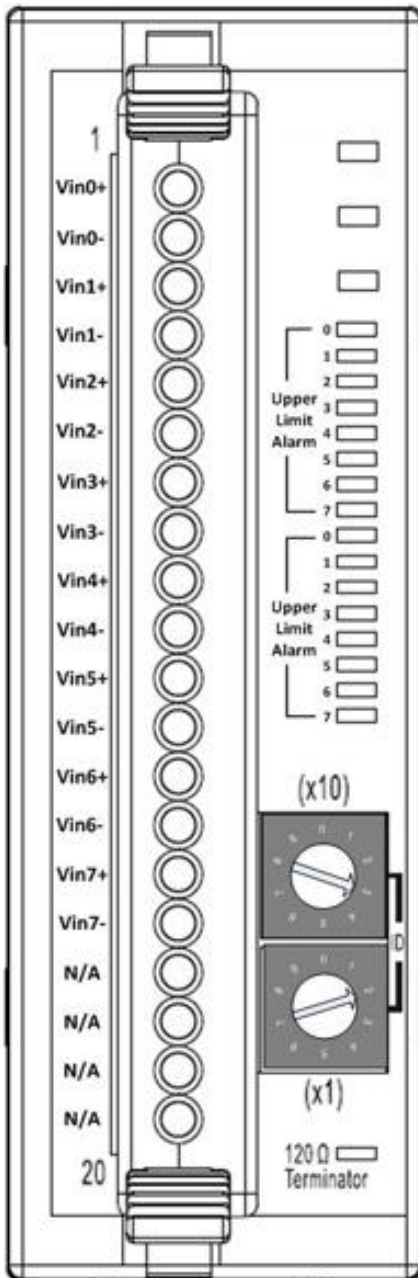
## Hardware Specification

| <b>CAN Interface</b>  |  |
|-----------------------|--|
| CANopen Specification | CiA DS-301 v4.02, DS-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 $\Omega$ terminator resistor  |
| Connector             | 5-pin screwed terminal block<br>(CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+)  |
| <b>Analog Input</b>   |  |
| Channels              | 8  |
| Input Type            | +/- 10V, +/- 5V, +/- 1V, +/- 500mV, +/- 150mV<br>-20mA ~ +20mA(Requires Optional External 125 $\Omega$ Resistor) |
| Resolution            | 16-bit   |
| ESD Protection        | +/-4 kV, Contact for each channel  |
| <b>LED</b>            |  |
| Status LED            | PWR LED, RUN LED, ERR LED  |
| Terminal Resister LED | Terminal Resister Indicator  |
| Alarm LED             | 8 LEDs as over Upper Limit Indicators<br>8 LEDs as over Lower Limit Indicators                                   |
| <b>Power</b>          |  |
| Input range           | Unregulated +10 ~ +30 V <sub>DC</sub>  |
| Power Consumption     | 2.0 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-2017C, please visit the following website:**

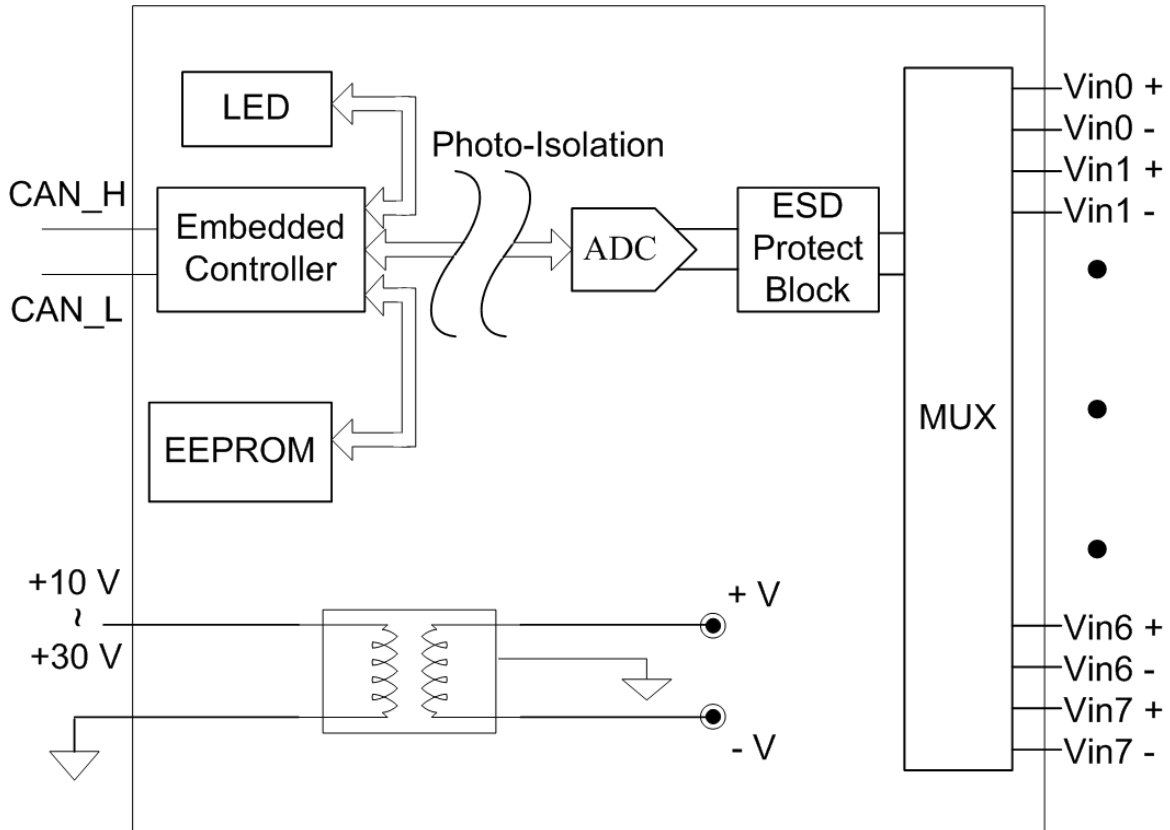
[http://www.icpdas.com/products/Remote IO/can\\_bus/can-2017c.htm](http://www.icpdas.com/products/Remote_IO/can_bus/can-2017c.htm)

# CAN-2017C Pin Assignments

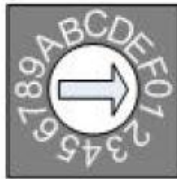


| Terminal No. | Pin Assignment |
|--------------|----------------|
| 01           | Vin 0 +        |
| 02           | Vin 0 -        |
| 03           | Vin 1 +        |
| 04           | Vin 1 -        |
| 05           | Vin 2 +        |
| 06           | Vin 2 -        |
| 07           | Vin 3 +        |
| 08           | Vin 3 -        |
| 09           | Vin 4 +        |
| 10           | Vin 4 -        |
| 11           | Vin 5 +        |
| 12           | Vin 5 -        |
| 13           | Vin 6 +        |
| 14           | Vin 6 -        |
| 15           | Vin 7 +        |
| 16           | Vin 7 -        |
| 17           | N/A            |
| 18           | N/A            |
| 19           | N/A            |
| 20           | N/A            |

## CAN-2017C Internal I/O Structure



CAN-2017 Internal I/O Structure



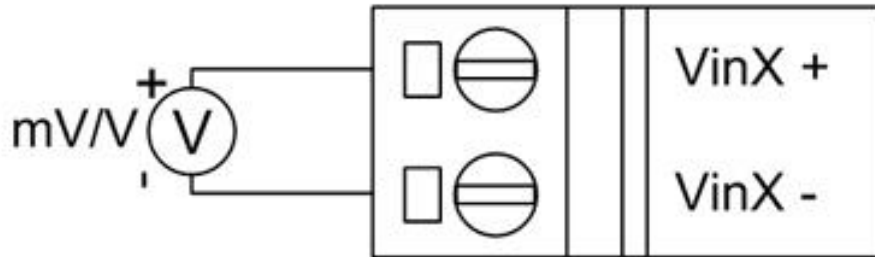
**Baud rate rotary switch**

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

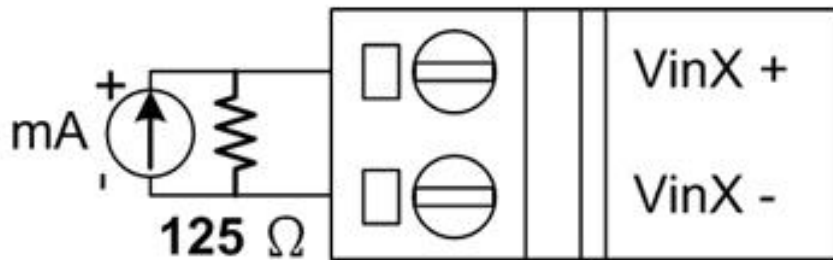
**Baud rate and rotary switch**

## CAN-2017C Wiring Connection Type

### Voltage Input Wiring

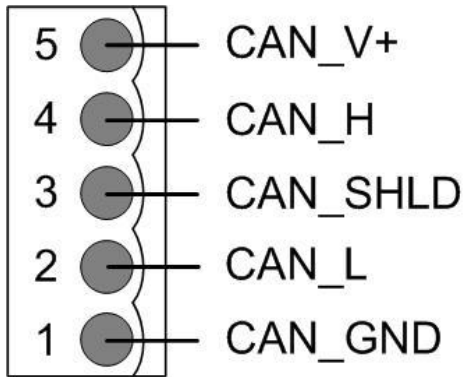


### Current Input Wiring



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

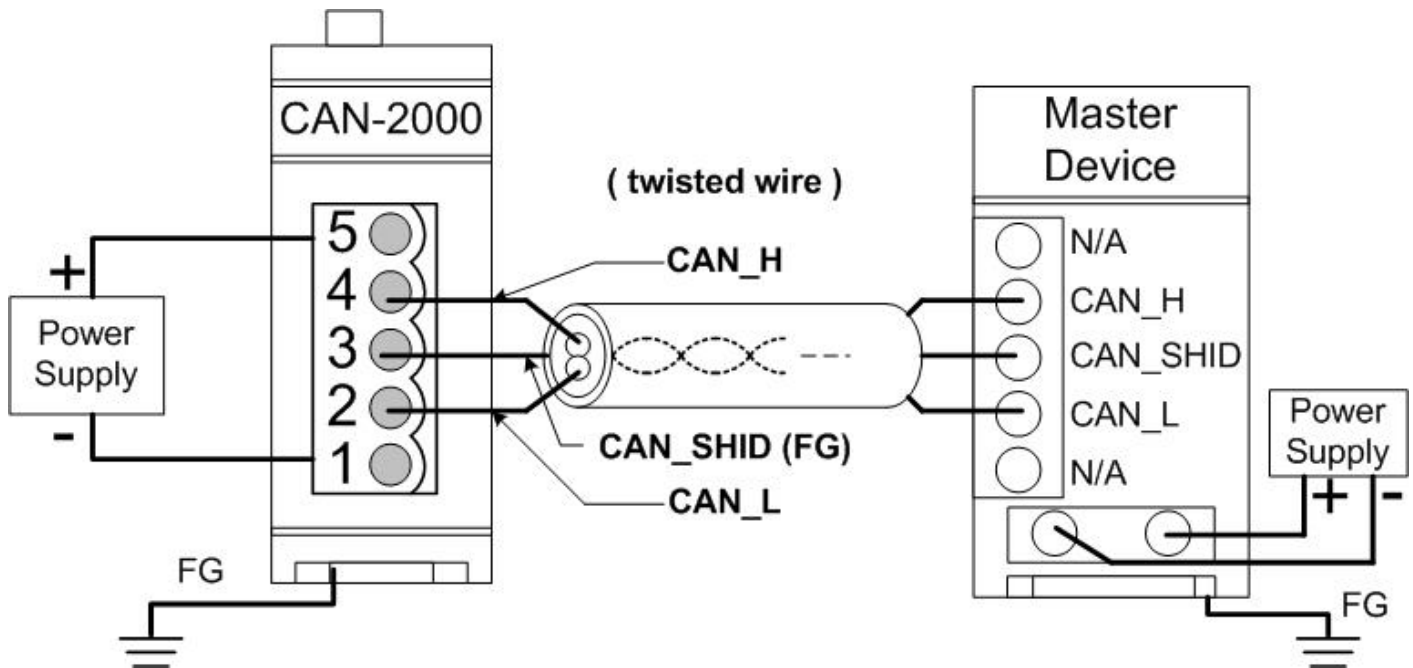
## CAN-2017C CAN Bus Wire Connection



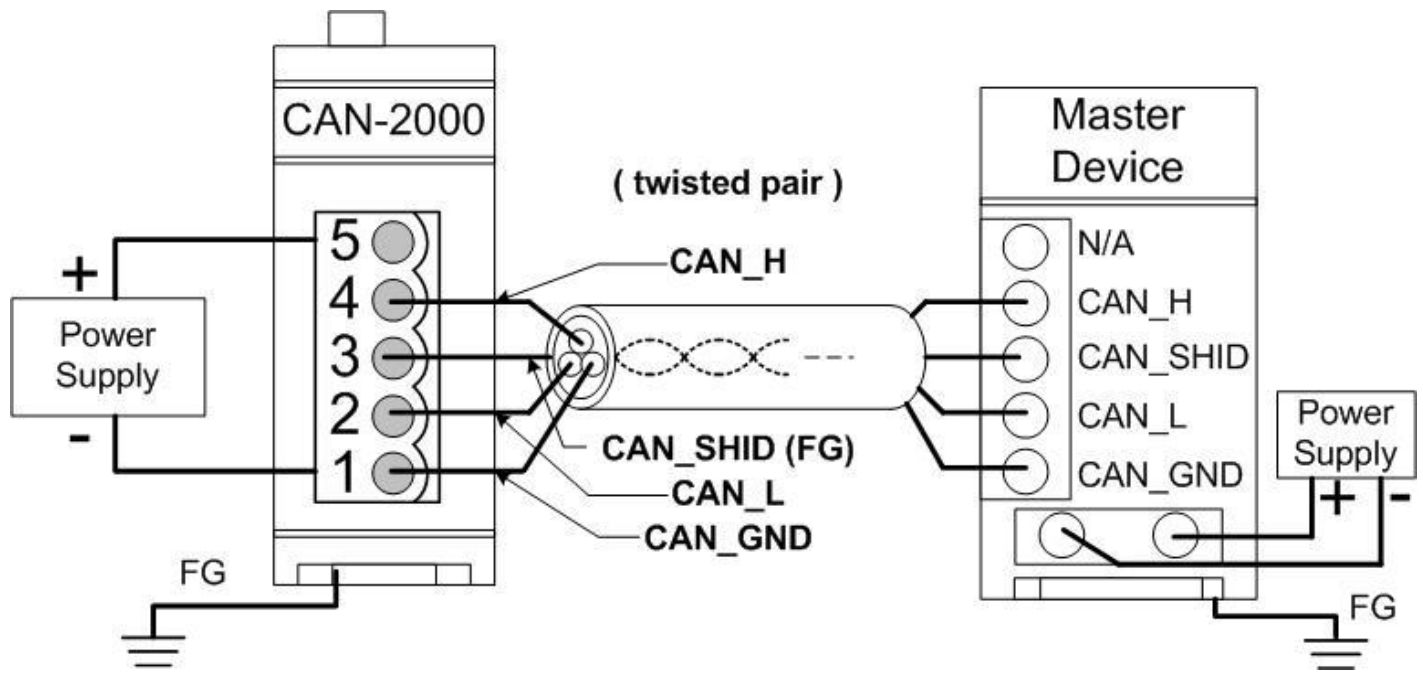
| Pin | Signal   | Description                 |
|-----|----------|-----------------------------|
| 5   | CAN_V+   | Power positive              |
| 4   | CAN_H    | Signal high of CAN Bus line |
| 3   | CAN_SHLD | Cable Shield ( <b>FG</b> )  |
| 2   | CAN_L    | Signal low of CAN Bus line  |
| 1   |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

\* CAN\_SHLD (FG) is Optional.

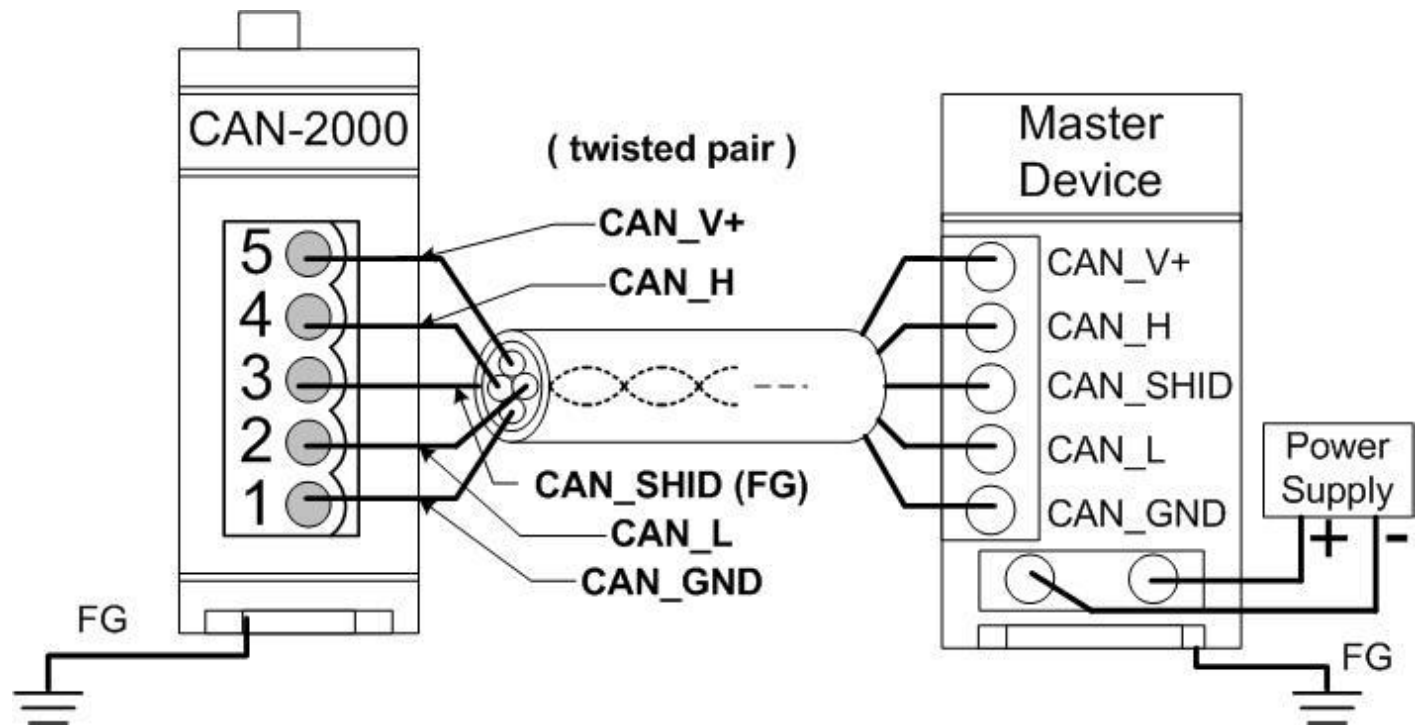
### 2-Wire Connection



### 3-Wire Connection

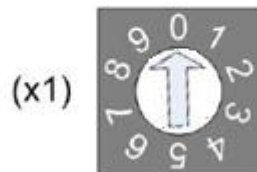
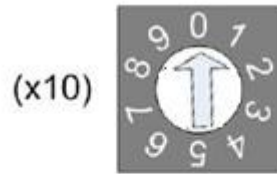


### 4-Wire Connection (The CAN-2000 is powered by the master device)



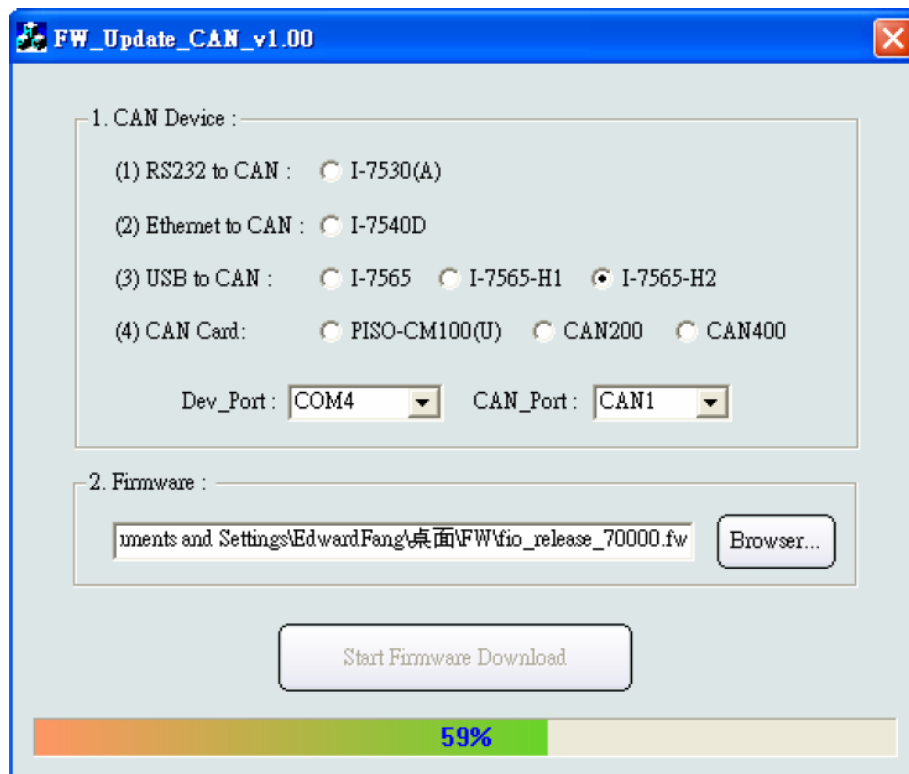
## CAN-2017C Firmware Update

**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\_2017c\_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-2017C firmware Download:

[ftp://ftp.icpdas.com/pub/cd/fieldbus\\_cd/canopen/slave/can-2000c/can-2017c/](ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/canopen/slave/can-2000c/can-2017c/)

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/)