

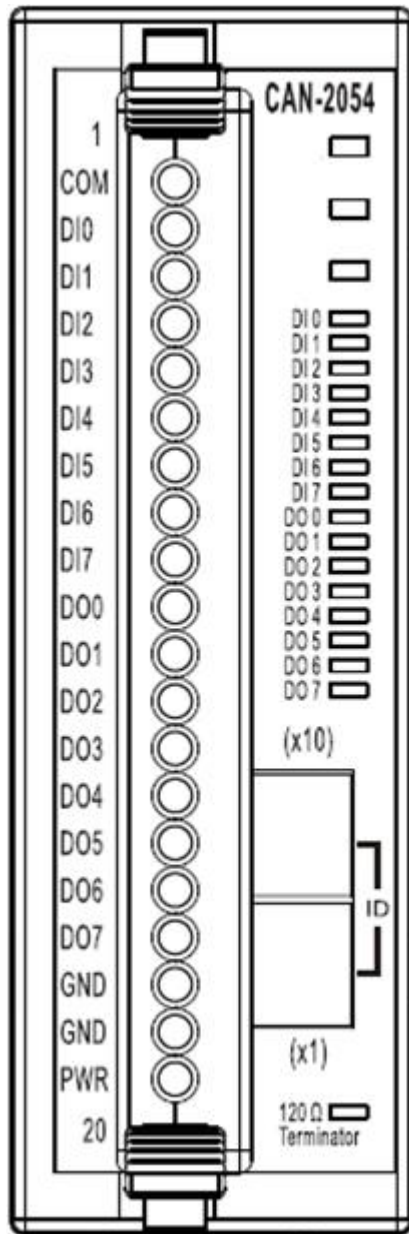
# CAN-2054C Quick Start

## 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 (CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+)
<b>Digital Input</b>	
Channels	8 (Sink/Source)
On Voltage Level	3.5 ~30 V <sub>DC</sub>
Off Voltage Level	1 V <sub>DC</sub> Max.
Response Time	250 us
ESD Protection	+/-4 kV, Contact for each channel
<b>Digital Output</b>	
Channels	8 (Sink)
Load Voltage	5 ~ 30 V <sub>DC</sub>
Max. Load Current	700 mA per channel
Output Type	Open-collector
Reaction Time	200 us
<b>LED</b>	
Status LED	PWR LED, RUN LED, ERR LED
Terminal Resister LED	Terminal Resister Indicator
DI/DO LED	8 LEDs as digital input indicators 8 LEDs as digital output indicators
<b>Power</b>	
Input range	Unregulated +10 ~ +30 V <sub>DC</sub>
Power Consumption	1.5 W
<b>Environment</b>	
Operating Temp.	-25 ~ 75 °C
Storage Temp.	-30 ~ 80 °C
Humidity	10 ~ 90% RH, non-condensing

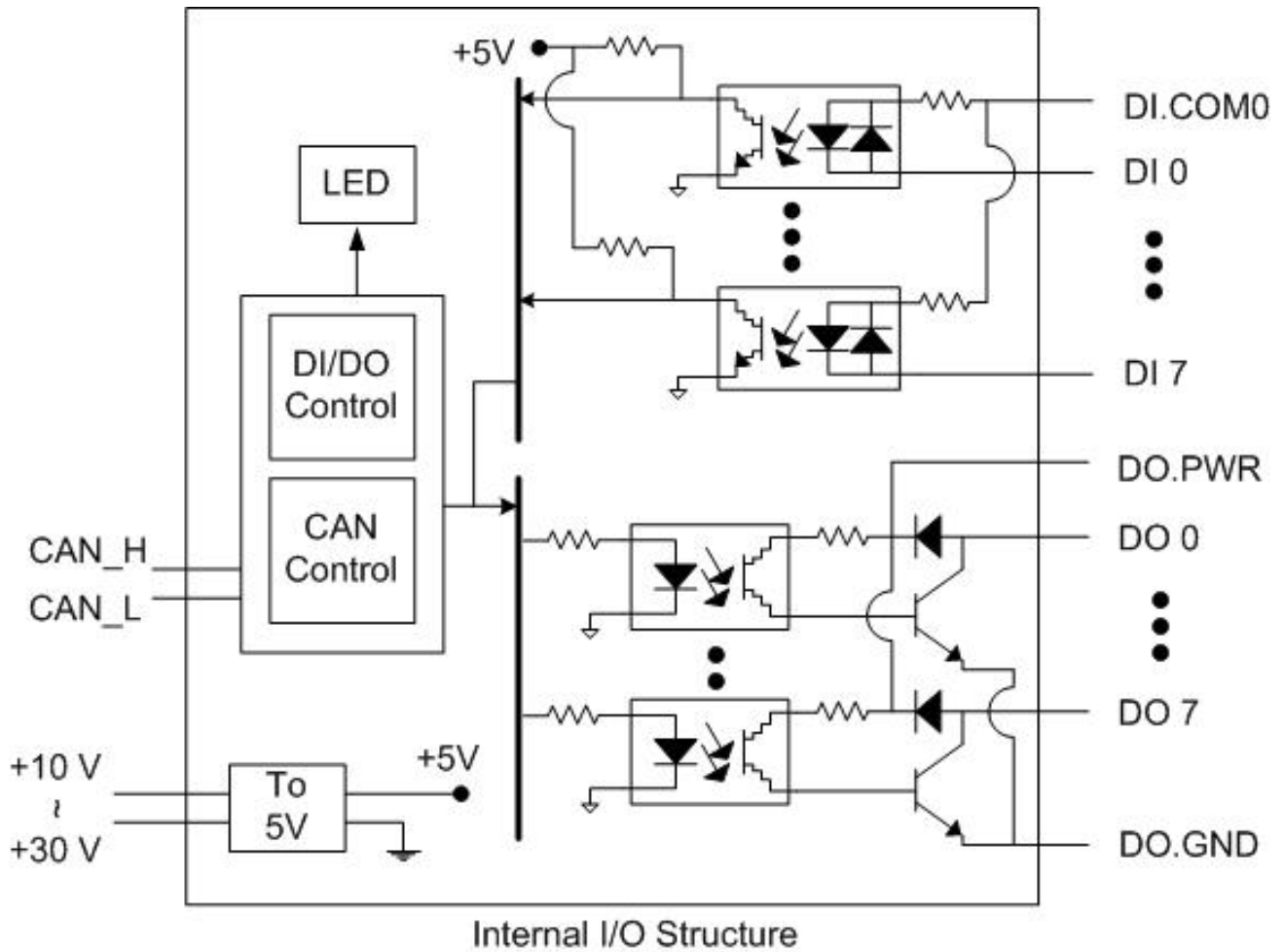
For more information about CAN-2054C, please visit the following website:  
[http://www.icpdas.com/products/Remote IO/can\\_bus/can-2054c.htm](http://www.icpdas.com/products/Remote_IO/can_bus/can-2054c.htm)

## CAN-2054C Pin Assignments

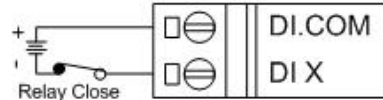
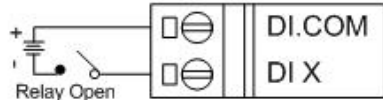
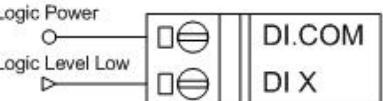
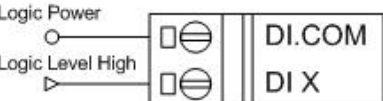
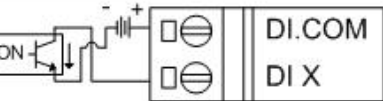
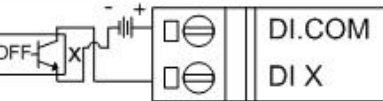
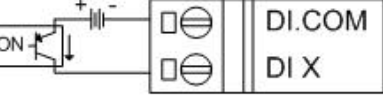



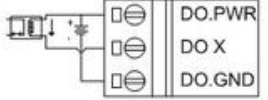
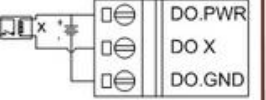


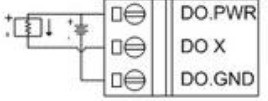
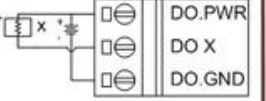


Terminal No.	Pin Assignment
01	DI.COM
02	DI.0
03	DI.1
04	DI.2
05	DI.3
06	DI.4
07	DI.5
08	DI.6
09	DI.7
10	DO.0
11	DO.1
12	DO.2
13	DO.3
14	DO.4
15	DO.5
16	DO.6
17	DO.7
18	DO.GND
19	DO.GND
20	DO.PWR

## CAN-2054C Internal I/O Structure



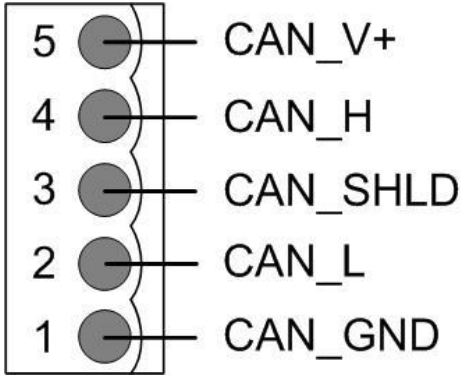
## CAN-2054C Wiring Connection Type

Module Name	CAN-2054C / CAN-2054D	
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
		

Module Name	CAN-2054D		CAN-2054C	
Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Drive Relay	Relay On	Relay Off	Relay Off	Relay On
				
Resistance Load				

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

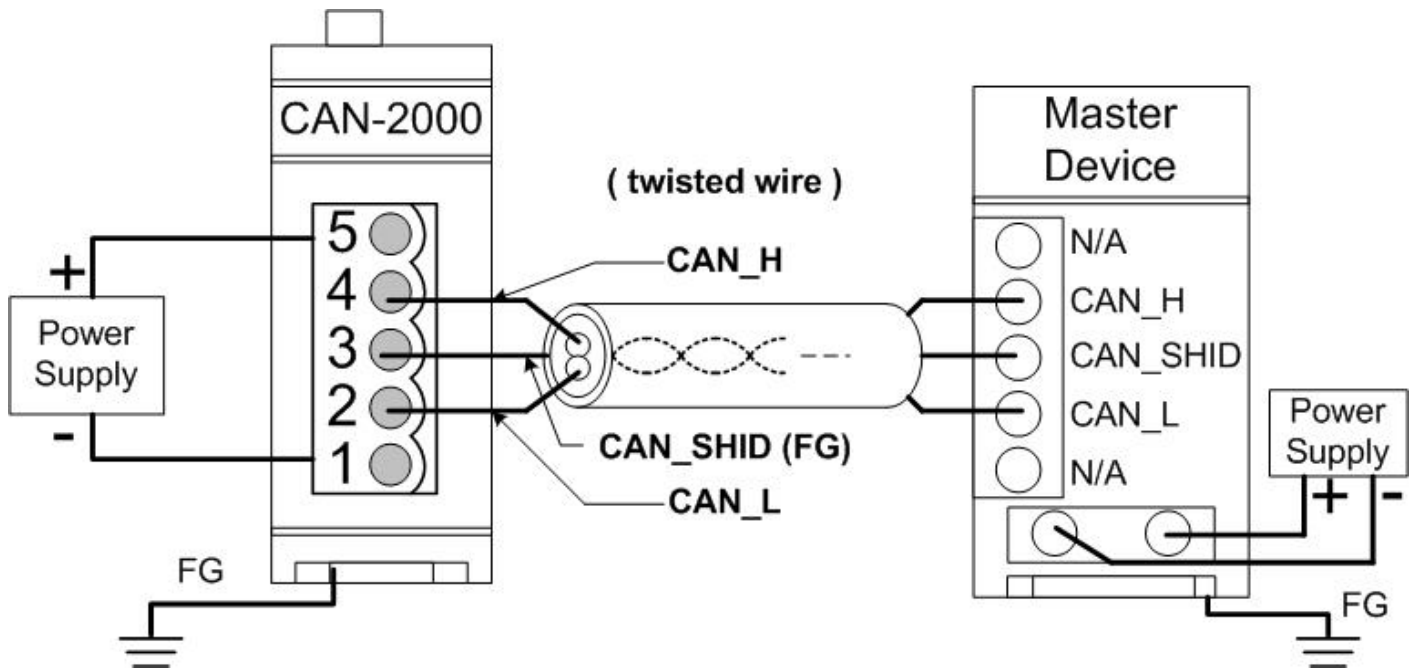
## CAN-2054C CAN Bus Wire Connection



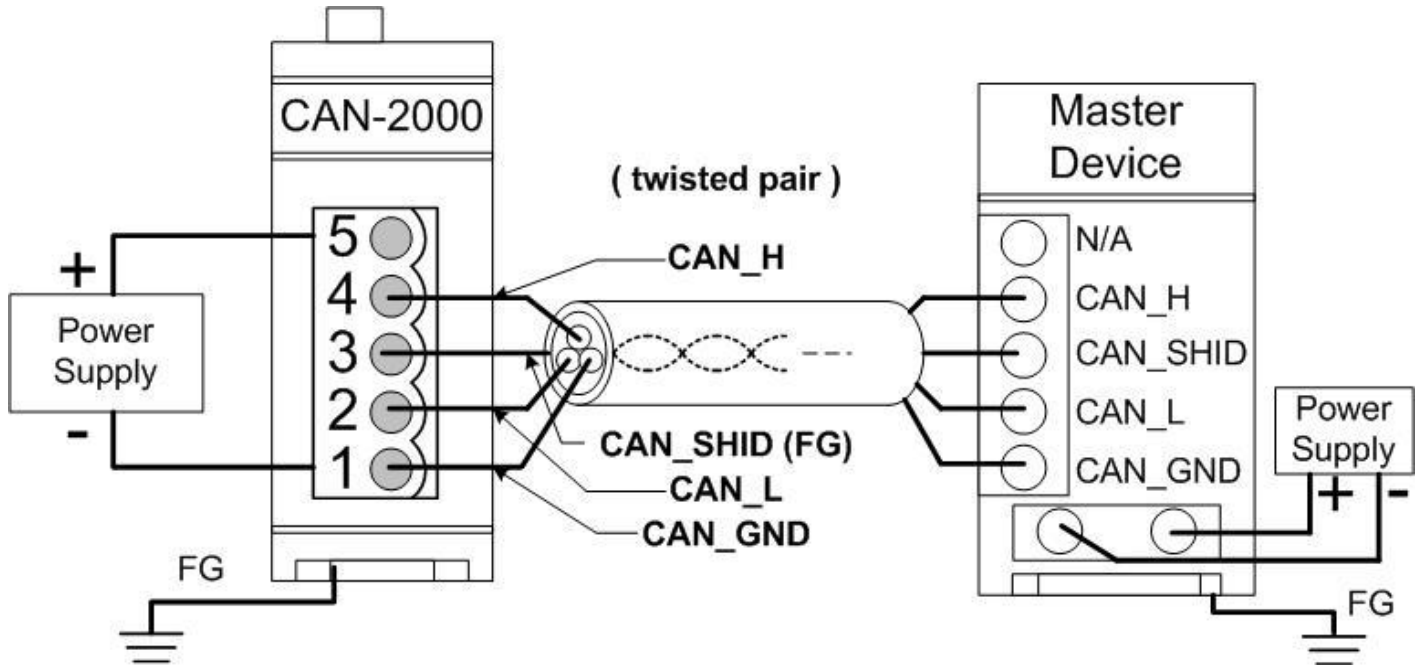
Pin	Signal	Description
5	CAN_V+	Power positive
4	CAN_H	Signal high of CAN Bus line
3	CAN_SHLD	Cable Shield ( <b>FG</b> )
2	CAN_L	Signal low of CAN Bus line
1	CAN_GND	CAN ground

\* CAN\_SHID (FG) is Optional.

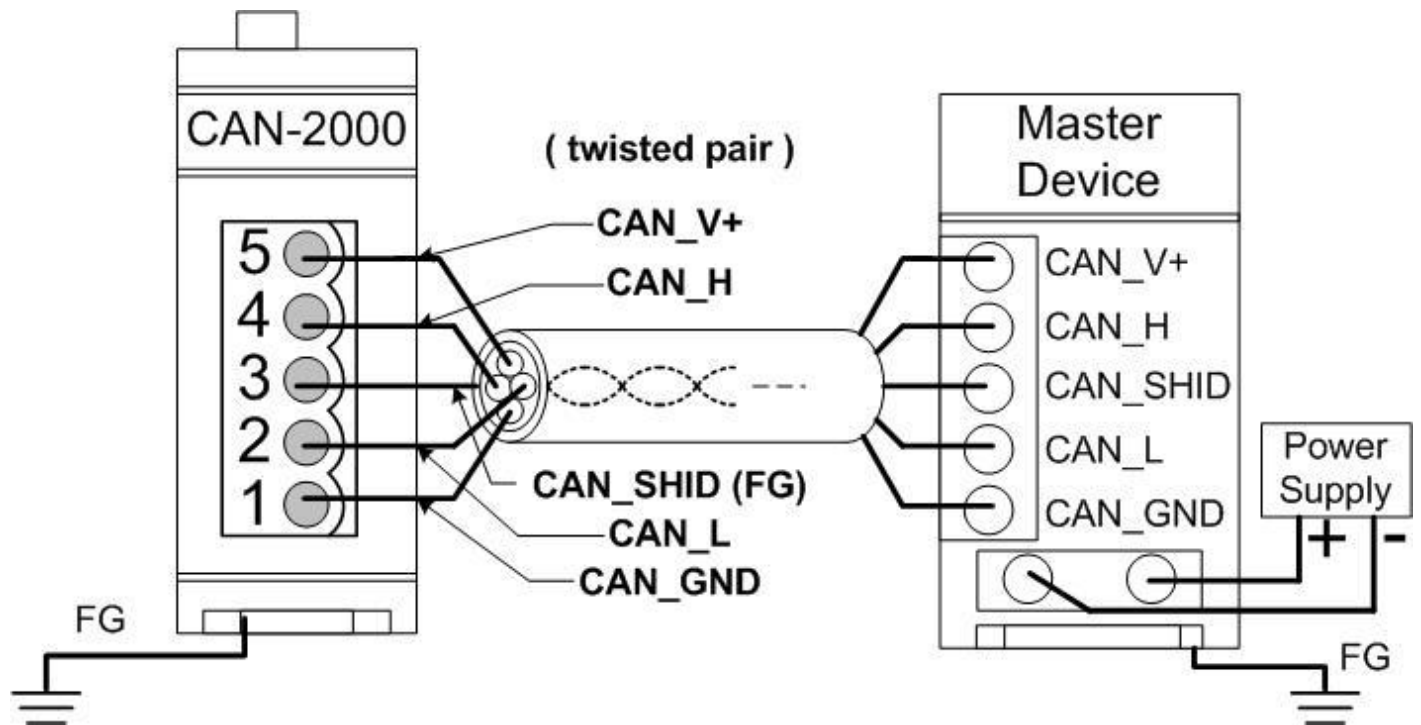
### 2-Wire Connection



### 3-Wire Connection

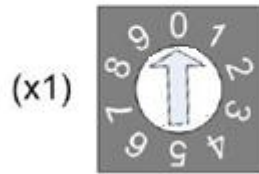
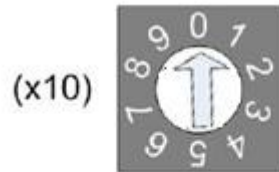


### 4-Wire Connection (The CAN-2000 is powered by the master device)



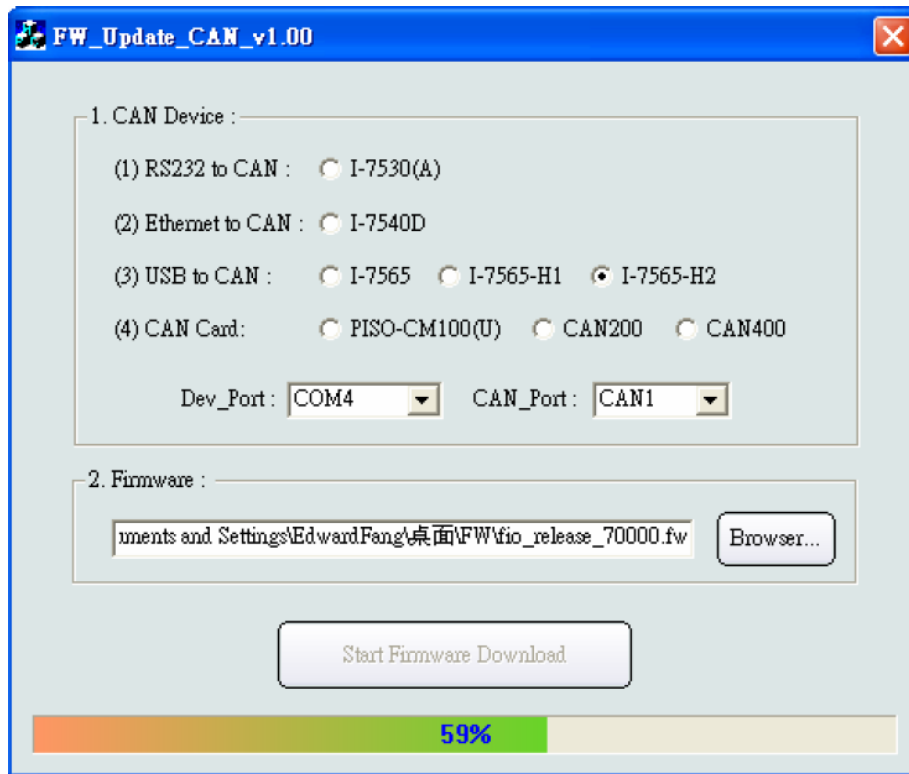
## CAN-2054C Firmware Update

**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**



## [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\_2054c\_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-2054C firmware Download:

[ftp://ftp.icpdas.com/pub/cd/fieldbus\\_cd/canopen/slave/can-2000c/can-2054c/](ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/canopen/slave/can-2000c/can-2054c/)

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/)