

# CAN-2088D Quick Start

## Packing List

CAN-2088D



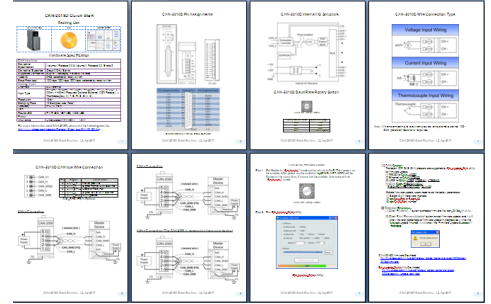
CD



Screw Driver



Quick Start



## Hardware Specification

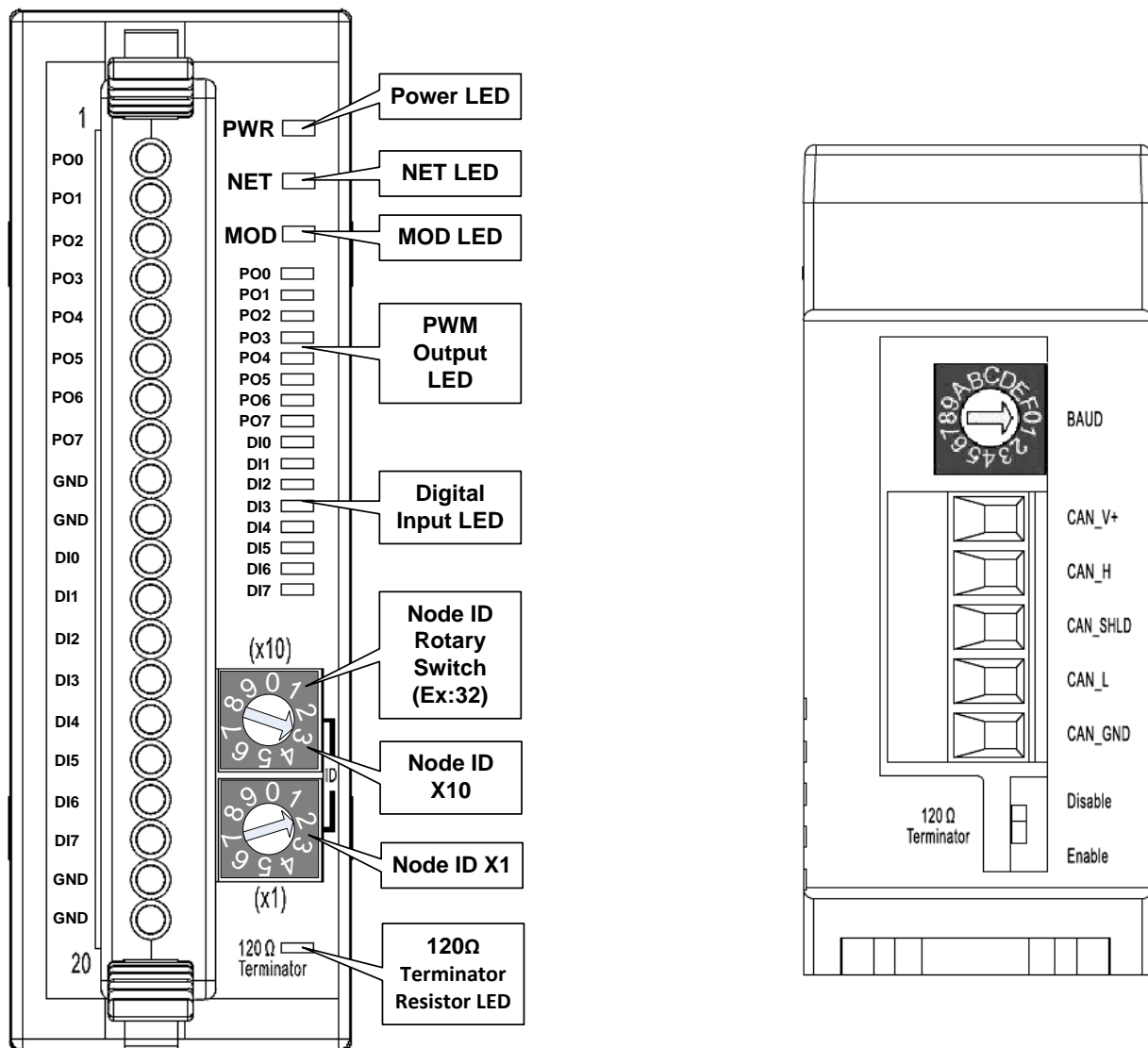
<b>CAN Interface</b>	
DeviceNet Specification	Volume I, Release 2.0 & Volume II, Release 2.0, Errata 5
DeviceNet Subscribe	Group 2 Only Server
Supported Connection	1 connection for Explicit Messaging 1 connection for Polled I/O 1 connection for Bit-Strobe I/O connection
Node ID	0~63 selected by rotary switch
Baud Rate (bps)	125 k, 250 k, 500 k, selected by rotary switch
<b>PWM</b>	
Channels	8 (Source)
Output Max. Load Current	1 mA
Frequency	0.2~500 kHz(non-continuous)
Scaling Resolution	16-bit(1~128 $\mu$ s for each step)
Duty Cycle	0.1~99.9%
PWM Mode	Burst mode, Continuous mode
Burst Mode Counter	1~65535 counts
Trigger Mode	Hardware(Start and Stop) or Software(Start and Stop)
<b>Digital Input</b>	
Channels	8 (Sink/Source)
On Voltage Level	+5.5~+30 V <sub>DC</sub>
Off Voltage Level	<3.5 V <sub>DC</sub>
Counter Frequency	500 kHz Max.

Max. Counts	32-bits(4,294,967,295)
Input Impedance	4.7 k $\Omega$ ,1/4W
<b>LED</b>	
Status LED	PWR LED, NET LED, MOD LED
Terminal Resister LED	Terminal Resister Indicator
PWM LED	8 LEDs as PWM Output LED Indicators
DI LED	8 LEDs as Digital Input LED Indicators
<b>Power</b>	
Input range	Unregulated +10 ~ +30 V <sub>DC</sub> , 2 W

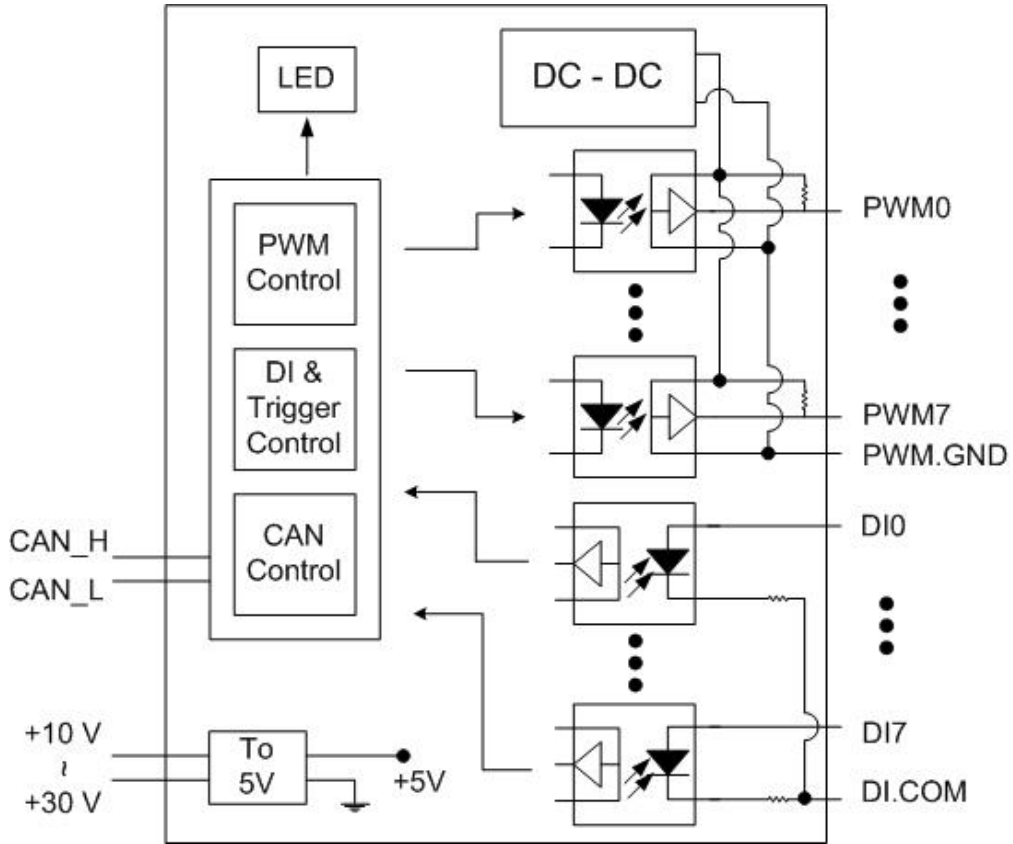
For more information about CAN-2088D, please visit the following website:

[CAN-2088D](http://CAN-2088D)

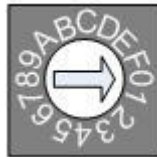
## CAN-2088D Pin Assignments



## CAN-2088D Internal I/O Structure



## CAN-2088D Baud Rate Rotary Switch



Baud rate rotary switch

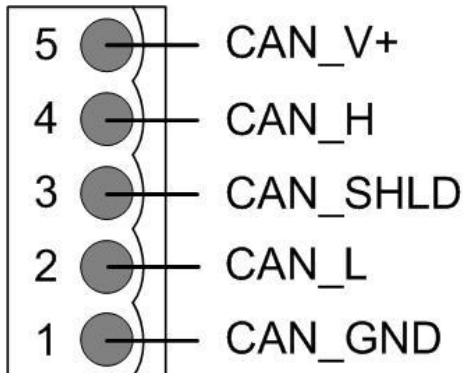
Rotary Switch Value	Baud rate (kbps)
0x0	125
0x1	250
0x2	500
0xF	Firmware update

## CAN-2088D Wiring Connection Type

Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Drive Relay	<b>Relay On</b>	<b>Relay Off</b>
Resistance Load	<b>Relay On</b>	<b>Relay Off</b>

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Relay Contact	<b>Relay On</b>	<b>Relay On</b>
TTL/CMOS Logic	<b>Voltage &gt; 10 V</b>	<b>Voltage &lt; 4 V</b>
NPN Output	<b>Open Collector On</b>	<b>Open Collector Off</b>
PNP Output	<b>Open Collector On</b>	<b>Open Collector Off</b>

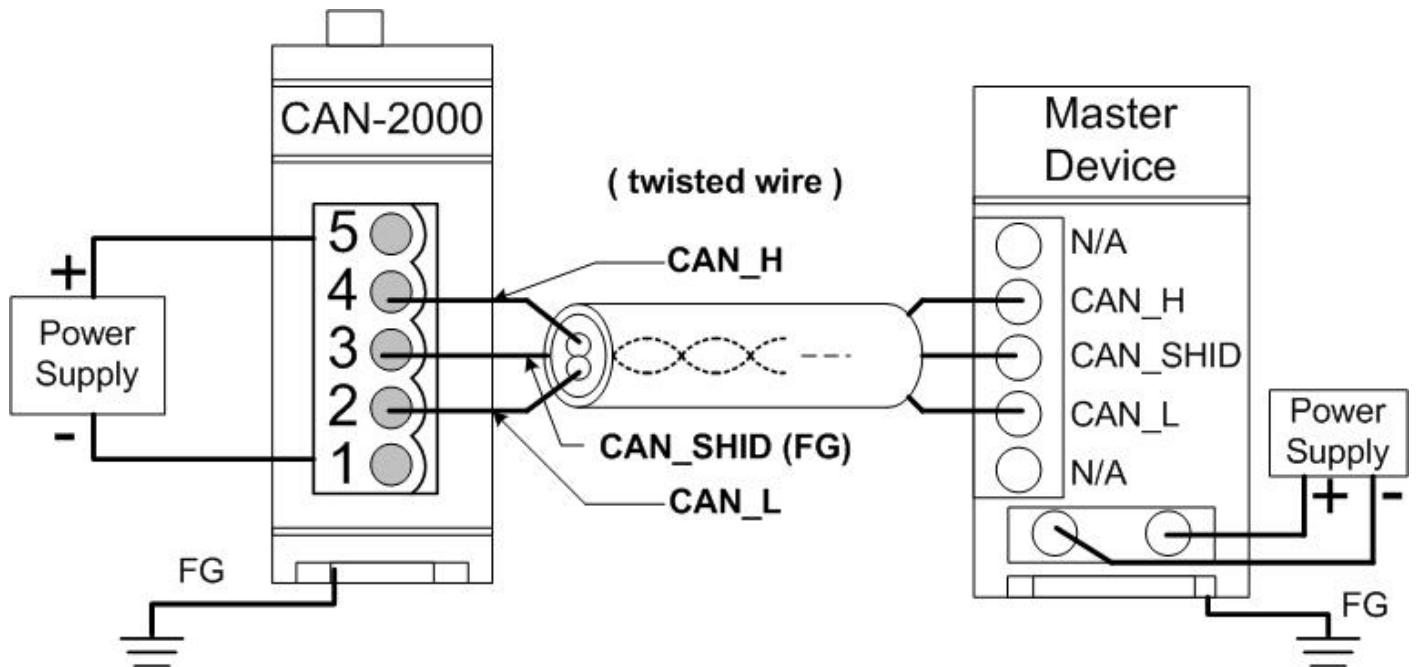
## CAN-2088D CAN Bus Wire Connection



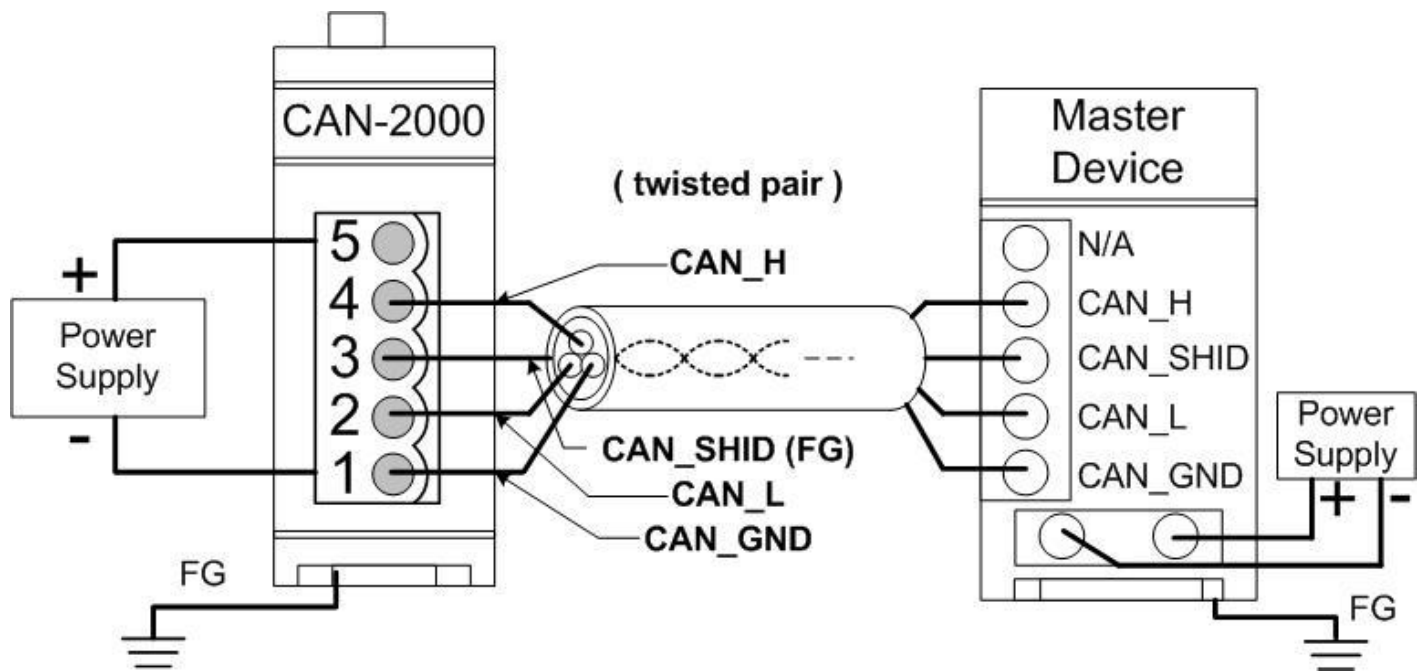
Pin	Signal	Description
5	CAN_V+	Power positive
4	CAN_H	Signal high of CAN Bus line
3	CAN_SHLD	Cable Shield ( <b>FG</b> )
2	CAN_L	Signal low of CAN Bus line
1	CAN_GND	CAN ground

\* CAN\_SHLD (FG) is Optional.

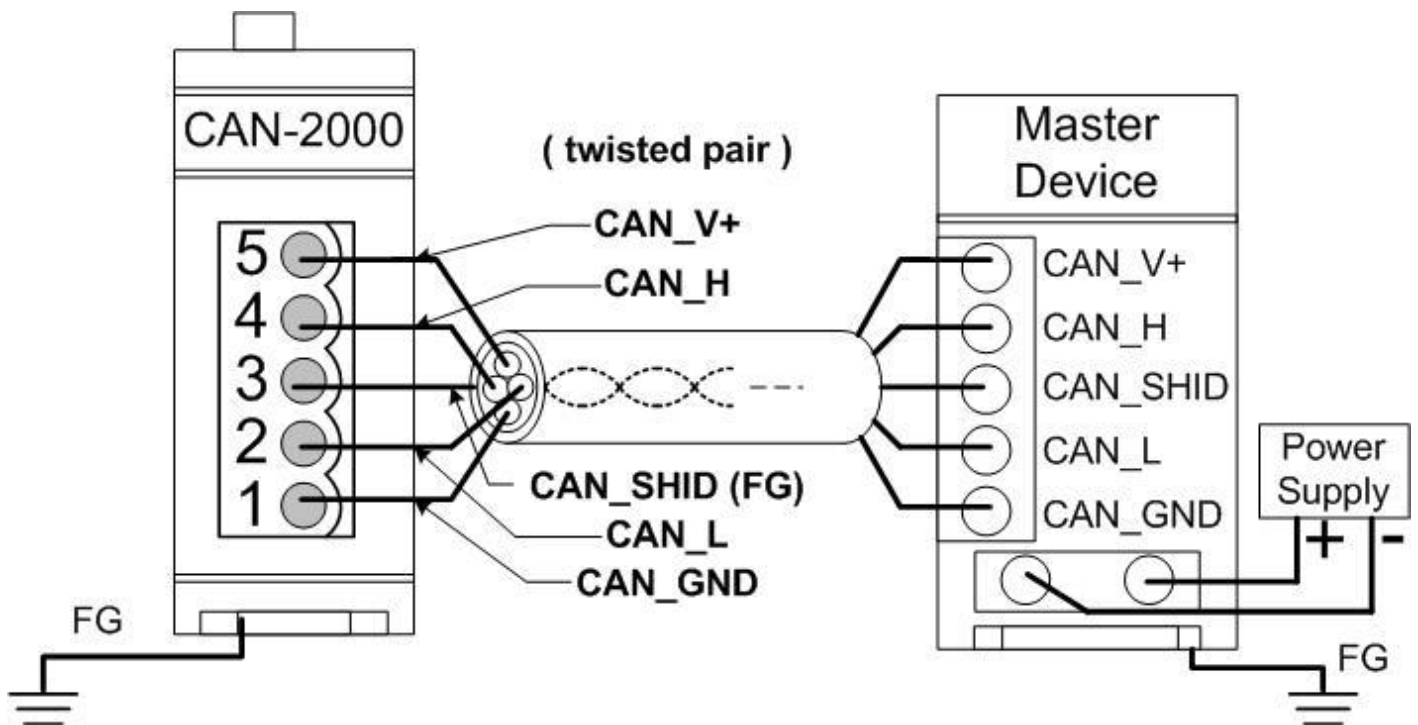
### 2-Wire Connection



### 3-Wire Connection

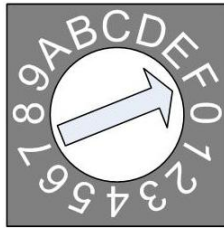


### 4-Wire Connection (The CAN-2000 is powered by the master device)



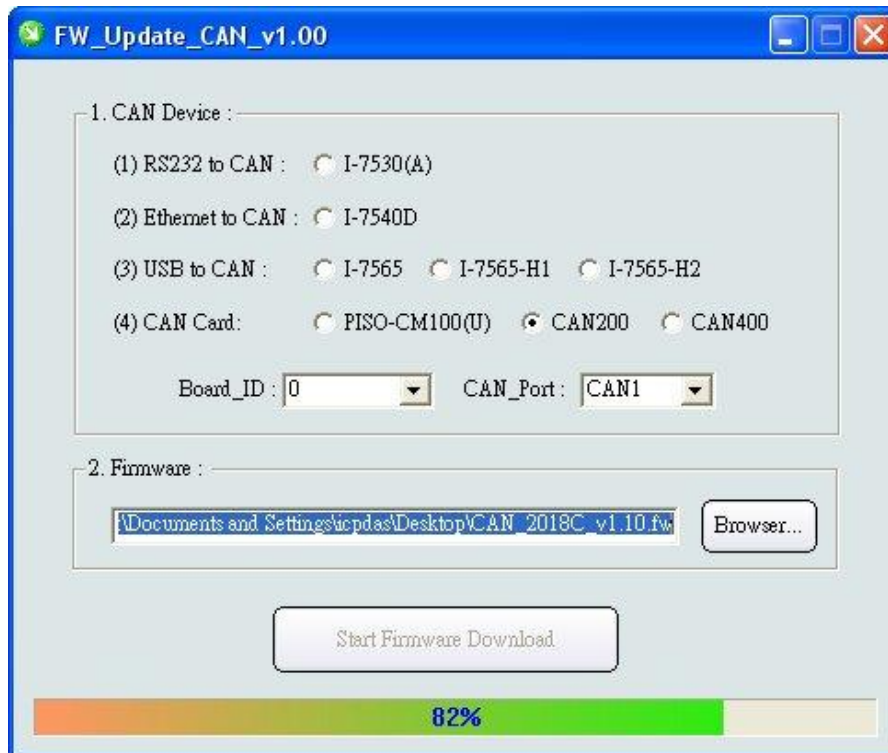
## CAN-2088D Firmware Update

**Step 1 – Set Module to “Bootloader” mode (set baud rate to 0xF). Then power on the module. After power on, the module’s led(PWR, NET, MOD) will be flashed at the same time. It means that the module have entered into “Bootloader” mode.**



**Baud Rate 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\_2088d\_vX.X.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-2088D firmware Download:

[ftp://ftp.icpdas.com.tw/pub/cd/fieldbus\\_cd/devicenet/slave/can-2000d/can-2088d/firmware/](ftp://ftp.icpdas.com.tw/pub/cd/fieldbus_cd/devicenet/slave/can-2000d/can-2088d/firmware/)

FW\_Update\_CAN Utility Download:

[ftp://ftp.icpdas.com.tw/pub/cd/fieldbus\\_cd/devicenet/slave/can-2000d/tools/fw\\_update\\_can\\_tool/](ftp://ftp.icpdas.com.tw/pub/cd/fieldbus_cd/devicenet/slave/can-2000d/tools/fw_update_can_tool/)