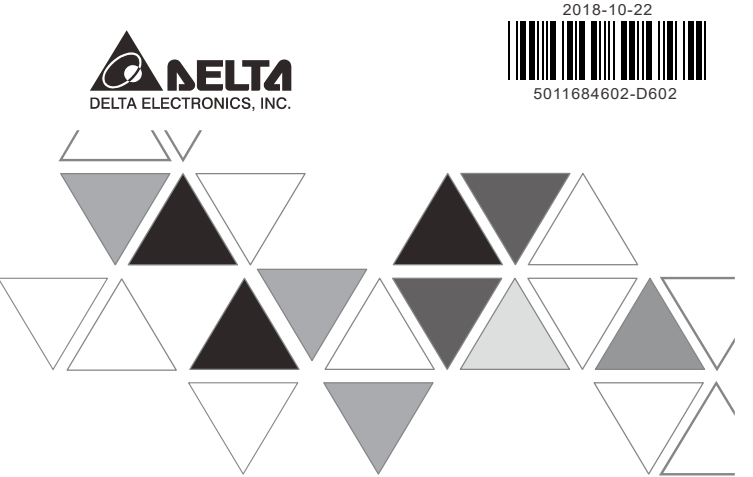




IFD6503 INSTRUCTION SHEET

安裝說明 安装说明

- ▲ **USB/CAN Communication Interface**
- ▲ **USB/CAN 通訊轉換模組**
- ▲ **USB/CAN 通讯转换模块**



DVP-1226430-03

⚠ Warning

- ✓ Please read this instruction sheet carefully before use and follow this instruction to operate the device in order to prevent damages on the device or injuries to staff.
- ✓ Switch off the power before wiring.
- ✓ This instruction sheet only provides introductory information on electrical specification, functions, wiring, trouble-shooting and the peripherals for IFD6503. Details of DeviceNet/CANopen protocol are not included in this sheet. For more information on DeviceNet/CANopen protocol, please refer to relevant references or literatures.
- ✓ IFD6503 is to be used for controlling the operating machine and equipment. In order not to damage it, only qualified professional staff familiar with the structure and operation of it can install, operate, wire and maintain it.

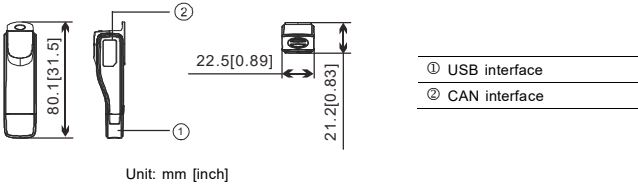
❶ Introduction

Thank you for choosing Delta IFD6503. IFD6503 is an USB/CAN communication interface. The power is supplied by the PC connected to it; therefore, no external power supply is required.

■ Features

1. Plug and Play USB interface.
2. The USB interface supports hot plugging.
3. The CAN interface adopts RJ-45 cable interface for simple wiring.
4. Small size.
5. Serial communication speed supported: 10k, 20k, 50k, 100k, 125k, 250k, 500k, 800k, 1M (bps)

■ Product Profile & Outline



❷ Specifications

■ Communication

Serial transmission speed	10k, 20k, 50k, 100k, 125k, 250k, 500k, 800k, 1M bps (bits per second)
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■ Electrical Specifications

Power supply	Supplied by the PC connected. No external power supply is required.
Power consumption	0.6W
Electrical isolation	DC1,000V

■ Environment

Operation	0°C ~ 55°C (temperature), 50 ~ 95% (humidity), pollution degree 2
Storage	-25°C ~ 70°C (temperature), 5 ~ 95% (humidity)
Shock/vibration immunity	International standards: IEC 61131-2, IEC 68-2-6 (TEST Fc)/IEC 61131-2 & IEC 68-2-27 (TEST Ea)
Certificates	IEC 61131-2, UL508.

❸ Components

■ USB Interface

Used for the connection with the USB interface on the PC. USB V2.0 (full speed) compliant.

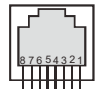
PIN	Signal	Definition
1	V _{bus}	V _{bus} and GND are standard power cables supplying 5V to equipment. D+ and D- are a pair of difference-mode cables.
2	D-	
3	D+	
4	GND	



Note: DO NOT use USB extension cable when in harsh environment.

■ CAN Interface

PIN	Signal	Definition
1	CAN_H	Signal+
2	CAN_L	Signal-
3	CAN_GND	0V DC
4	RESE_1	Reserved
5	RESE_2	Reserved
6	CAN_SHLD	Shielded cable
7	CAN_GND	0V DC
8	RESE_3	Reserved



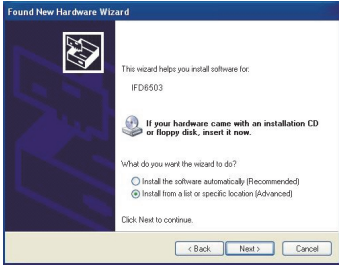
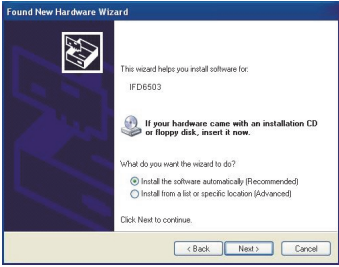
❹ Basic Operation

■ Before Installing the Driver

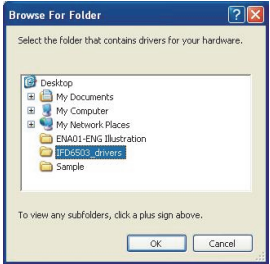
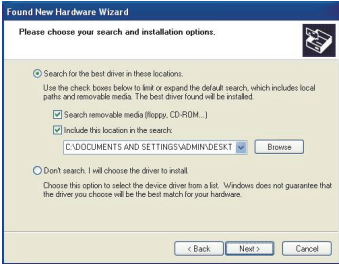
1. Download “IFD6503_Drivers.rar” file from Delta’s website: www.delta.com.tw/industrialautomation and save it to a designated path.
2. Extract the file, and the “IFD6503_Drivers” folder will be placed in the designated path.

■ Installing the Driver

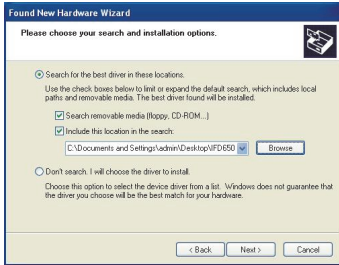
1. Connect IFD6503 to the USB port on the PC. In normal status, the “Found New Hardware Wizard” dialog box will appear.
2. Select “Install from a list or specific location (Advanced)”.



3. Select “Search for the best driver in these locations” and check the two boxes below. Click on “Next”.
4. Click on “Browse” button in the previous step, and you will see the “Browse For Folder” dialog box. Choose the path where you would like to save the “IFD6503_Drivers” folder. Click on “OK”.



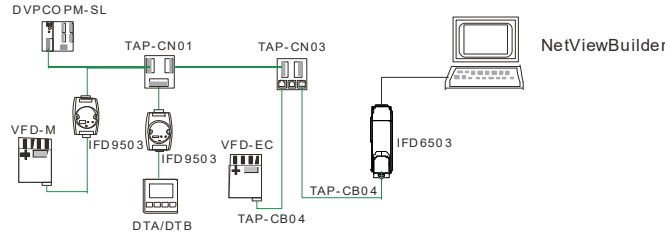
5. After all the settings are set, return to the “Found New Hardware Wizard” dialog box. Click on “Next”.
6. Click on “Finish” to complete the installation.



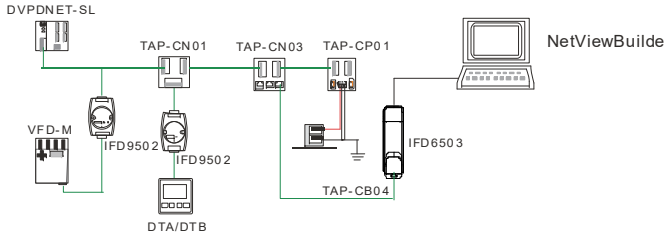
7. The USB indicator on IFD6503 will then be ON in green and the CAN indicator ON in yellow.

❸ Connecting IFD6503 to CAN Bus

■ Connecting IFD6503 to CANopen Network



■ Connecting IFD6503 to DeviceNet Network



❹ LED Indicators & Troubleshooting

There are two LED indicators on IFD6503. USB LED displays the working status of the USB interface; CAN LED displays the working status of the CAN interface.



■ USB LED

LED status	Indication	How to correct
OFF	The PC cannot identify IFD6503.	Install the driver.
Green light ON	Connection to USB is successful.	--
Green light flashing	USB data are communicating.	--

■ CAN LED

LED status	Indication	How to correct
OFF	Initialization of the CAN interface is successful.	--
Yellow light ON	1. CAN bus is initializing. 2. CAN bus is BUS-OFF. 3. Error in CAN bus.	1. The yellow light is ON because the CAN bus has not initialized when IFD6503 is plugged into the PC. The yellow light will be OFF when the initialization is completed. 2. The yellow light will flash when there are data communicating on the CAN bus. 3. When many errors occurring in the CAN bus, the CAN bus communication will be cut off, and the yellow light will be constantly ON.
Yellow light flashing	CAN data are communicating.	--