

# CAN-FD-FIB-MIXED Series

## *CAN FD Fiber Optic Switch Router(2 port CAN+2 port Optical )*



### Product Description

The CAN-FD-FIB-MIXED Can bus to fiber optic switch provide an optical point-to-point or bus network connection for Can FD data interfaces on one or two, multimode or single mode optical fibers. The CAN FD fiber optic switch has 2 CAN ports and 2 fiber optic ports, all 4 ports are configurable via software. Any port can communicate with other ports, so it has the functions of "Repeater", "Router" and "Switch", it can be used in point to point, multi drop bus, star and tree topologies.

The CAN-FD-FIB-MIXED can be used in CAN (FD) network with baud rate up to 5 Mbps. It can be used in various high-level CAN (FD) protocols (CANopen, SDS, J1939, DeviceNet or other customized protocols).

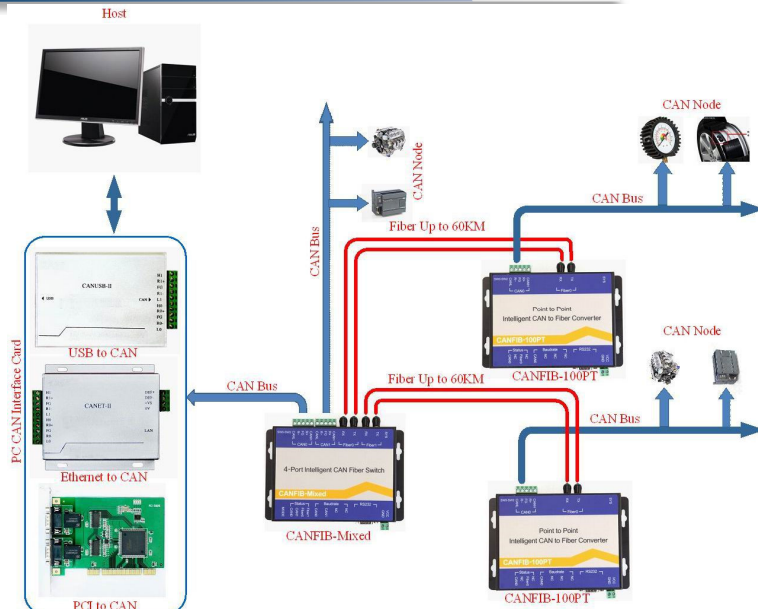
The CAN-FD-FIB-MIXED can be configured with corresponding CAN (FD) message filter to ensure that only the required data is transmitted to other CAN (FD) networks through the repeater. Therefore, the device can effectively reduce the network load.

The CAN-FD-FIB-100BT can be configured by connecting to PC through asynchronous serial communication interface. Configuration software is based on Windows OPS, which is easy to use and configuration can take effect immediately. After equipment configuration is completed, it can be put into operation directly.

## Product Features

- ◆ 32-bit 400Mb high-speed processor, embedded with real-time operating system and adaptive flow control algorithm, suitable for the system with strict real-time requirements.
- ◆ The port has queue buffering to ensure the frame integrity of all applications from low speed to high speed.
- ◆ The port uses rotary dial switch to set the baud rate of CAN (FD) data. For most applications, customers even do not need to use configuration software.
- ◆ The port has indicator for sending, receiving and status indication, which is convenient for industrial field debugging.
- ◆ The configuration software and configuration method of CAN (FD) to serial port, CAN (FD) bridge, CAN (FD) switch, CAN (FD) to optical (point-to-point), CAN (FD) to optical (bus type), CAN (FD) fiber optic switch are completely unified. Customers can switch between these products seamlessly.
- ◆ The CAN FD port can process 5000 frames per second.
- ◆ The CAN (FD) interface has electrical isolation, and the isolation voltage is 2500V DC
- ◆ It has 2-channel fiber interfaces (transmission distance 10-15km, 25km / 40km / 60km optional), ST / SC / FC interfaces as option.
- ◆ Users can configure communication baud rate: 5Kbps ~ 5Mbps through rotary button or RS232 port
- ◆ Powerful CAN (FD) message filtering function, which can effectively avoid unnecessary messages being forwarded
- ◆ Built in terminal resistor and external termination resistor are optional.
- ◆ Power supply, device status, bus transmitting, bus receiving, bus error LED indicators.
- ◆ Wide voltage range: 9-40V DC (surge, over-current, reverse connection protection)
- ◆ Industrial temperature range: - 40 °C ~ + 85 °C
- ◆ Aluminum enclosure size: 147mm \* 112mm \* 36mm
- ◆ 3 years warranty

## Typical System Configuration



## Specifications:

| Data                  |                                      |
|-----------------------|--------------------------------------|
| Data Formats          | CAN FD ,CAN OPEN, Device Net         |
| CAN Data Rate         | 5Kbps~5Mbps                          |
| Bit Error Rate        | <1 x 10 <sup>-12</sup>               |
| Connectors            |                                      |
| Data                  | Screw Block Terminal 2 ports         |
| Fiber                 | ST, SC or FC (ST fitted as standard) |
| Environmental         |                                      |
| Operating Temperature | -30C----+70C                         |
| Storage Temperature   | -40C----+85C                         |
| Operating Humidity    | 0-95%                                |
| MTBF                  | >100,000 Hours                       |
| Optical               |                                      |
| Fiber                 | Multi mode or single mode            |
| Wavelength            | MM:850nm,SM:1310nm                   |
| Number of fibers      | 4 or 2(WDM,Bi-Di) (2TX+2RX)          |
| Power                 |                                      |
| Power Input           | +9-+40V DC                           |
| Mechanical            |                                      |
| Dimensions            | 147(W)×112(D)×36(H)mm Wall mount     |

## Ordering Information:

| Model Number         | Description                                                       | Fiber No. | Fiber Mode  | Fiber Connector |
|----------------------|-------------------------------------------------------------------|-----------|-------------|-----------------|
| HFD-FO-FD-P1M        | Point to Point Link,Single Fiber(BI-DI), 2km, DIN Rail mount      | 1         | Multi Mode  | ST/SC/FC        |
| HFD-FO-FD-P2M        | Point to Point Link,Dual Fiber, 2km, DIN Rail mount               | 2         | Multi Mode  | ST/SC/FC        |
| HFD-FO-FD-P1S        | Point to Point Link,Single Fiber(BI-DI), 20km, DIN Rail mount     | 1         | Single Mode | ST/SC/FC        |
| HFD-FO-FD-P2S        | Point to Point Link,Dual Fiber, 20km, DIN Rail mount              | 2         | Single Mode | ST/SC/FC        |
| CAN-FD-FIB-100PT-P1M | Point to Point Link,Single Fiber(BI-DI), 2km, Wall or rack mount  | 1         | Multi Mode  | ST/SC/FC        |
| CAN-FD-FIB-100PT-P2M | Point to Point Link,Dual Fiber, 2km, Wall or rack mount           | 2         | Multi Mode  | ST/SC/FC        |
| CAN-FD-FIB-100PT-P1S | Point to Point Link,Single Fiber(BI-DI), 20km, Wall or rack mount | 1         | Single Mode | ST/SC/FC        |
| CAN-FD-FIB-100PT-P2S | Point to Point Link,Dual Fiber, 20km, Wall or rack mount          | 2         | Single Mode | ST/SC/FC        |
| CAN-FD-100BT-M2M     | Multi-drop Link,Dual Fiber(BI-DI), 2km                            | 2         | Multi Mode  | ST/SC/FC        |
| CAN-FD-100BT-M4M     | Multi-drop Link,4 Fiber, 2km                                      | 4         | Multi Mode  | ST/SC/FC        |
| CAN-FD-100BT-M2S     | Multi-drop Link,Dual Fiber(BI-DI), 20km                           | 2         | Single Mode | ST/SC/FC        |
| CAN-FD-100BT-M4S     | Multi-drop Link,4 Fiber, 20km                                     | 4         | Single Mode | ST/SC/FC        |
| CAN-FD-FIB-MIXED-P1M | CANFD Fiber Optic Switch, 2 CAN+2 Fiber                           | 2         | Multi Mode  | ST/SC/FC        |
| CANFD-FIB-MIXED-P2M  | CANFD Fiber Optic Switch, 2 CAN+4 Fiber                           | 4         | Multi Mode  | ST/SC/FC        |
| CANFD-FIB-MIXED-P1S  | CANFD Fiber Optic Switch, 2 CAN+2 Fiber                           | 2         | Single Mode | ST/SC/FC        |
| CANFD-FIB-MIXED-P2S  | CANFD Fiber Optic Switch, 2 CAN+4 Fiber                           | 4         | Single Mode | ST/SC/FC        |
| CANFD-Bridge-200T    | CAN FD to CAN Bus Bridge                                          | N/A       | N/A         | N/A             |
| CANFD-SW-400T        | CAN FD Switch                                                     | N/A       | N/A         | N/A             |
| CANFD-COM-100T       | CAN FD to RS-232/485/422 Converter                                | N/A       | N/A         | N/A             |

|                |                                         |     |     |     |
|----------------|-----------------------------------------|-----|-----|-----|
| CANFD-USB-100T | CAN FD to USB Converter, 1 channel      | N/A | N/A | N/A |
| CANFD-USB-200T | CAN FD to USB Converter, 2 channels     | N/A | N/A | N/A |
| CANFD-NET-100T | CAN FD to Ethernet Converter 1 channel  | N/A | N/A | N/A |
| CANFD-NET-200T | CAN FD to Ethernet Converter 2 channels | N/A | N/A | N/A |