+QUICK START GUIDE

CANFB

CAN Copper to Fiber Converter

Before you begin, be sure you have the following:

+ CANFB Copper/Fiber Converter
+ 10-30 VDC Power Supply (required, sold separately)

B+B SmartWorx

Powered by **ADVANTECH**

+Recommended Accessories

12V, 20W, DIN Rail Slimline Power Supply
#MDR-20-12

B+B SmartWorx

Powered by **ADVANTECH**

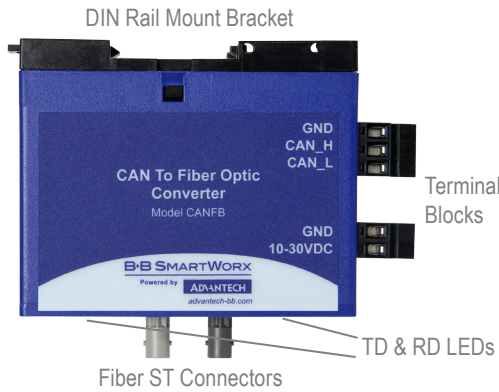**1-888-948-2248** | Europe: **+353 91 792444**

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Product Overview

2000 V Isolation

DIN Rail Mount Bracket

GND
CAN_H
CAN_L

CAN To Fiber Optic Converter
Model CANFB

GND
10-30VDC

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Terminal Blocks

TD & RD LEDs

Fiber ST Connectors

CANFB - SPECIFICATIONS	
Interface	CAN Copper / Fiber Converter
Isolation	2000 V
Data Rate	250k baud
Fiber	50/125µm, 62.5/125µm, 100/140µm, 200µm HCS fiber
LEDs	TD, RD (may be harder to see at higher baud rates)
Power	~ 150 mA @ 12V, fully loaded
Turnaround	< 2µ sec.
Power Supply	10-30 VDC (external power supply required)
Temperature	0 to 70 °C (operating)

1 Getting Started

The Model CANFB is a copper to fiber converter that provides optical isolation to protect your CAN ("Control Area Network") system from surges and transients in noisy and harsh environments. This separates and protects critical segments of the system from the rest of the CAN network. It is protocol independent, allowing it to work with different CAN protocols and frame lengths.

The CANFB converter is used in pairs, one for each side of the fiber. The CAN side is connected to the system via terminal blocks. The fiber is connected via ST connectors.

A 10-30 VDC power supply is required. Model CANFB is housed in a rugged DIN-rail mountable box, making it easy to install in industrial cabinets.

2 Termination

The CAN network must be terminated at both ends according to the CAN Specification. Networks not properly terminated may have data errors or miss the data completely.

The CANFBs create two new ends to the CAN network. Space is provided on the board for a termination resistor, R8. A 120 Ohm resistor is recommended for the termination. If the CANFB is not at the end of the network, it should not be terminated.

3 Baud Rate / Bit-wise Enable

The CANFB is bit-wise enabled, allowing it to automatically adjust for different baud rates. The bit-wise enable only enables the driver on every low bit received. It also disables the driver on the Receive side for the low bit plus a maximum of 2µ sec. This prevents data from echoing back from the CANFB, but allows the nodes to respond back.

The maximum length of fiber used depends on the baud rate, CANFB and length of copper wire used. The CAN bus requires a response in one bit time.

CAN NETWORK

CAN-L
CAN-H
GND

CANFB

GND
10-30 VDC

Power Supply

Fiber

CANFB

CAN-L
CAN-H
GND

GND
10-30 VDC

Power Supply

Isolated CAN Node or CAN NETWORK