

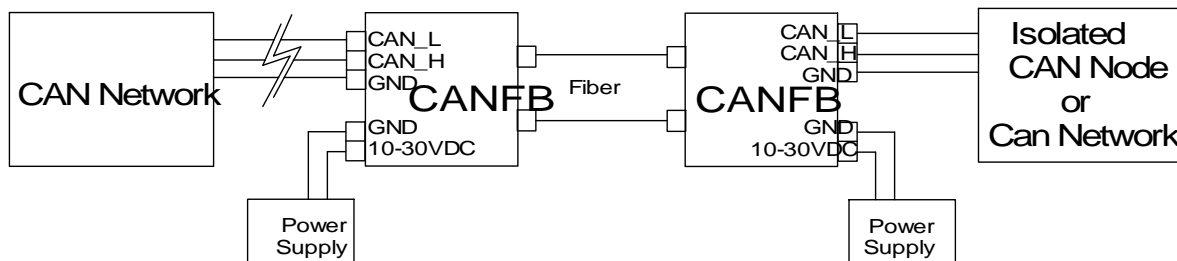
# CAN Copper to Fiber Converter

## Model CANFB

Model **CANFB** isolates and protects your CAN (Control Area Network) system from component killing surges and transients in a noisy and harsh environment. The CANFB is a copper to fiber converter that provides optical isolation for the CAN system. 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 all the different CAN protocols and frame lengths. The Model CANFB converter is used in pairs, one for each side of the fiber.



The CAN side is connected to the system through terminal blocks. The fiber is connected through ST connectors. A power supply of 10-30 VDC is required. Model CANFB is housed in a rugged DIN-Rail mountable box, making it easy to install in an industrial cabinet.



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.

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 2 $\mu$  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 required a response in one bit time.

### Specifications

Max. Baud Rate: 250k baud  
 Fiber: 50/125 $\mu$ m, 62.5/125 $\mu$ m, 100/140 $\mu$ m, 200 $\mu$ m HCS fiber  
 Power Supply: 10 to 30 VDC  
 Power: Approx. 150mA @ 12V fully loaded  
 Isolation: 2000 VDC  
 Turnaround: < 2 $\mu$  sec.  
 LEDs: 1 TD, 1 RD. (may be hard to see at the higher baud rates)  
 Dimensions: 4.0 x 3.4 x 1.4 in (9.3 x 8.6 x 3.6 cm)  
 Temperature Range: 0°C to 70°C