

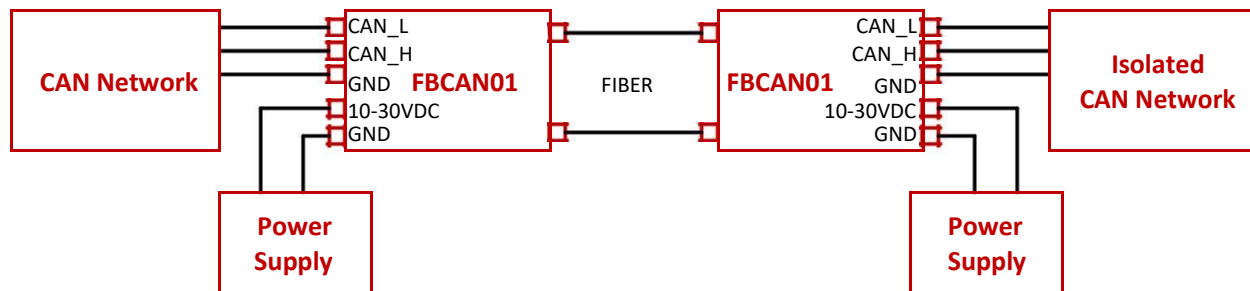
FBCAN01 Series – Introduction



Model **FBCAN01** isolates and protects your CAN (Control Area Network) system from component killing surges and transients in a noisy and harsh environment.

The FBCAN01 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 FBCAN01 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 FBCAN01 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 FBCAN01s 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 FBCAN01 is not at the end of the network, it should not be terminated.

The FBCAN01 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 sec. This prevents data from echoing back from the FBCAN01, but allows the nodes to respond back. The maximum length of fiber used depends on the baud rate, FBCAN01 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 m, 62.5/125 m, 100/140 m, 200 m HCS fiber

Power Supply: 10 to 30 VDC

Power: Approx. 150mA @ 12V fully loaded

Isolation: 2k VDC Turnaround: < 2 sec.

LEDs: 1 x Transmit (TD), 1 x Receive (RD)

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