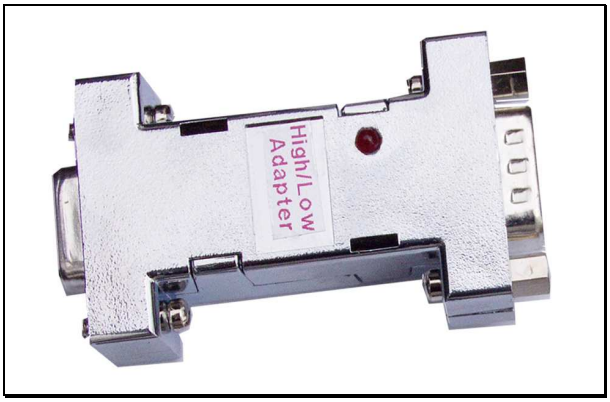
IF-CAN-BC

CAN High Speed to Low Speed Adaptor



The most commonly used physical layer implementations in the field are the ISO-11898 (high speed) and the ISO-11519 (fault tolerant low speed) systems. In the USA, these systems are respectively known as the CAN C and CAN B.

Both interface versions often use a 9 pin Sub-D-connector with the same CAN-H, CAN-L and GND signal pinouts as proposed by the CiA (CAN in Automation).

Due to the different signal level definitions in the CAN physical layer specification, problems will occur when directly connecting together high speed and low speed devices. These problems can be solved with the IF-CAN-BC high speed to low speed adaptor.

This converter will enable the user to connect various systems with high speed (CAN C) interfaces to low speed fault tolerant (CAN B) buses.

Operation

The IF-CAN-BC is plugged into a CAN high speed interface and converts the signals of this interface for compatibility with fault tolerant low speed signal requirements. The CAN C bus baud rate needs to be set to the same speed as the CAN B bus.

A hardware bus error on the low speed side will be recognized and displayed by the IF-CAN-BC integrated red LED error indicator.

A DC voltage from 8 to 36 volts can be connected to pin number 9 of either the low speed or the high speed connector. An internal voltage regulator and decoupling diodes supplys the internal circuits with the proper voltage.

The high speed interface utilizes a 24 Volt PCA82C251 device and the low speed side is implemented with a TJA1054 device.

Specifications

- Supply voltage : 8 to 36 Volts (DC)
- Over voltage protected
- Current consumption : 5 mA (typ.)
- Dimensions: ca. 65 x 34 x 16 mm (L x W x H)
- Metalized plastic enclosure
- CAN-Bus termination resistance
  High speed side: 120 Ω
  Low speed side : 3300 Ω
- Connectors
  High speed side: Sub-D-9 female
  Low Speed side: Sub-D-9 male
  Pinout according to CiA proposal DS102

DB-9 Connectors

Pin No.	Signal
1	nc
2	CAN-L
3	GND
4	nc
5	nc
6	GND
7	CAN-H
8	nc
9	Supply Voltage

Ordering Info

IF-CAN-BC	Standard version with 120 Ohm terminator on HS-side
IF-CAN-BC-OT	Special version without termination on HS-side (order by special request)

Lipowsky Industrie-Elektronik GmbH, Römerstr.57, 64291 Darmstadt
Tel: 06151-93591-0 • Fax: 06151-93591-28 • email: info@lipowsky.de
Current information available at: www.lipowsky.de

Distributed in the USA by DGE Inc. • Tel: 248-299-4606 • www.dgeinc.net