EKE

CAN Vehicle Bus
Interface Module (CVB)

EN 50155
EN 45545
IEC 61375-3-3

MODULE FUNCTIONS

The Trainnet® CAN Vehicle Bus Interface module (CVB) is used to create up to two CAN Buses in the train. The 2 CAN ports can be independently configured as CAN 2.0 A/B or CANopen®. The Trainnet® CVB module implements the CAN link layer functions. The routing between the CAN bus and other buses are implemented by the gateway CPU Module.

KEY FEATURES

The module has two CAN network connectors on the front-panel, one 9-pin sub-miniature D-type connector for each independent interface. Communication to the gateway is done through shared memory over the IEC 821 VME back plane bus. The CAN link layer functions and CAN network access are implemented with the local CPU of the CAN module. Multiple Trainnet® CVB modules can be controlled by a single Trainnet® CPU to implement physically separated CAN networks.

The Trainnet® CVB module has static shared RAM memory accessible from both the local CPU and the VME Bus interface. The CVB module is realized

through a highly efficient combination of local microprocessor and FPGA logic. The Trainnet® CAN Vehicle Bus Interface Module has the capability of carrying out some specific diagnostics functions. Interfaces are Dual CAN 2.0 B and ISO 11898 compatible with a CiA DS-102 standard pin.

OPTIONS

Bus interfaces: The Trainnet® CVB module is available as an option with integrated bus termination resistors.

TECHNICAL SPECIFICATIONS

Dimensions (W x H x D)
4 TE x 3 U x 160 mm

Weight
149 g

Input Power
5 V DC ± 5 % (500 mA nominal)

Temperature Range (operational)
-40 ºC...+70 ºC

MTBF (40 ºC ambient temperature)
1 880 000 h (CVB1621B CAN terminated)
1 880 000 h (CVB2456B CAN not terminated)

CAN Network Interface
Two CAN interfaces

Data Rate
Up to 1 Mbit/s

Protocol
CAN 2.0 compatible

Electrical
24 V compliant, optically isolated

Connector
9-pin sub-miniature D-type connector
AWG 20 STP cable recommended

Bus Termination
On board 120 Ohm termination on request

VME Bus (IEC 821) Interface
A24 Slave with D08(EO)/D16