

CAN Hub

Fieldbus Gateway (CAN SAE J1939, CANOpen, DeviceNet and others)

Specifications

Type	CAN bus Gateway
Order code	MVCH-CO-01
LED Indication	Two Red/Green LED's Three Yellow LED's
Interfaces	Three fieldbus (CAN or other) ports Two RS-232 ports
CAN controller	DSP56F805 Digital Signal Processor Additional 32 Kbyte external EEPROM
Operating voltage	24V nominal (9...36V power supply range)
Electrical connections	16 spring-loaded connectors 1 RJ12-vertical connector on the PCB
Operating temperature range	-40...+85°C (-40...+185°F)
Packaging	Aluminum box (Other packaging styles available.)
Dimensions	100 x 100 x 82 mm (W x L x H) 3.93 x 3.93 x 3.23 inches
Protection Class	IP65 (IP67 available)
Other	The CAN ports interface to all CAN fieldbuses including CANOpen, SAE J1939, DeviceNet or customer specific protocols Interfaces to other industry common protocols such as Profibus



Product description

The CAN Hub provides isolation and filtering for up to three fieldbus protocols including SAE J1939, CANOpen, DeviceNet or others. Two serial ports are available for downloading to a PC, laptop or other user interface. Real-time data is available through a diagnostic port. The unit can be programmed from a CAN master in the field. Custom protocols can be programmed on request.

The CAN Hub can act as a:

- master CAN hub to read measurement data from one bus and send commands to another bus;
- a protocol exchanger to allow connection of three CANbuses with different protocols (i.e. CANOpen, SAEJ1939, DeviceNet, other industry common fieldbuses or customer specific protocols);
- and as a safety relevant master to permit one communication line with data relayed to two buses with identical devices.

The CAN Hub can offer maximum flexibility when building a CAN bus network control system. It allows the designer to build in a networked control system that interfaces to existing control modules using SAE J1939. Messages from a network are received, filtered and re-transmitted to another networked control subsystem. Up to three separate network fieldbus protocols can be used for a vehicle control system with maximum efficiency of data transfer over the networks. A PC based configuration tool is used to set up the CAN ports and configure the messages. It is generic for all CAN fieldbuses.

Power supply for the module is nominal 24V (with a range of 9 - 36V). The module is protected against reverse polarity and overvoltage. The module is designed for harsh environments. The aluminum housing is sealed to IP65 (IP67 versions are available). The standard module has **spring-loaded connectors** inside the module case, which require no separate external connectors for the wiring. The module can also be supplied with customer-specific connectors and packaging.

Applications

- interface to SAE J1939 engine control modules and gear boxes to other CAN buses in the vehicle
- mobile applications, construction equipment, electric vehicles, work machines, agricultural equipment
- on-highway vehicles (trucks, buses)
- factory automation (robotics, material handling machines)

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