



Serial/CAN-Gateway SerCAN

Special Features

- Protocol conversion between CAN and RS232 serial interfaces
- Transparent transmission of serial data streams over the CAN bus
- Transparent transmission of CAN messages over serial interfaces
- Adjustable filtering, parameters transmittable over CAN
- Rail mountable, wide supply input range

Description

SerCAN is a protocol converter between CAN and devices with RS232 interfaces. SerCAN allows the connection of devices with serial interfaces to CAN based systems, e.g. measuring devices, barcode scanners and handheld terminals.

SerCAN covers the typical applications for protocol conversions. If SerCAN is used as a universal CAN interface, the generation of any desired CAN messages under control of the serial device is the most favourable solution. In this case, a fixed, error-correcting protocol is used at the serial interface. If any desired serial data stream has to be transmitted over the CAN, a confirmed protocol between SerCAN and the CAN device is used. In applications, where both serial and CAN protocols are fixed, the data conversion can be realized by application-specific programming of SerCAN.

Technical Data

Layout and Connection

SerCAN devices include one CAN interface with two connectors as well as two independent serial connections serving for the connection of external serial devices.

The pin assignment of the CAN connectors is shown in the following table.

Pin	Name	Function
2	CAN_L	CAN_L bus line (dominant low)
3, 6	GND	Ground
7	CAN_H	CAN_H bus line (dominant high)
9	V+CAN	Power supply +24V

The pin assignment of the RS232 connectors is shown in the following table.

Pin	Name	Function
2	RxD	Receive data line
3	TxD	Send data line
5	GND	Ground
7	RTS	Request-to-send control line
9	CTS	Clear-to-send control line

Limiting Values

Parameter	Minimum	Maximum	Unit
Storage temperature	- 20	+ 80	°C
Operating temperature	0	+ 60	°C
Supply voltage	- 100	+ 35	V
Voltage on bus connections	- 30	+ 30	V
Admissible power Consumption (at 60°C)	–	2000	mW

Any (also temporary) stress in excess of the limiting values may cause permanent damage on Ctrans OL and other connected devices. Exposure to limiting conditions for extended periods may affect the reliability and shorten the life cycle of the device.

Nominal Values

Parameter	Minimum	Typical	Maximum	Unit
Current consumption (running idle)	–	50	–	mA
Current consumption (250kBit/s, 100% busload)	–	58	–	mA
Supply voltage	12	24	30	V

All values, unless otherwise specified, refer to a supply voltage of 24V and an environmental temperature of 20°C.