USB-to-CAN V2

Active USB interface

2 x CAN (High-/Low-Speed), LIN

With up to two CAN High Speed channels, one CAN Low Speed channel, and a LIN channel, depending on the device variant, a wide variety of applications can be addressed by the USB-to-CAN V2 – in both the industrial and the automotive sectors.

FEATURES AND BENEFITS

- Cost-effective and extremely versatile
- Common driver interface for easy exchange of the PC interface type
- For industrial and automotive applications
- Galvanic isolation optional

VARIANTS

The USB-to-CAN V2 is available in different variants. In the USB-to-CAN V2 compact variant, the CAN connection is implemented as a D-SUB 9 plug or alternatively as an RJ45 connector. For devices with two CAN interfaces, these are implemented as RJ45 connectors. Adapter cables to sub-D9 plugs are included with the devices.
The IXXAT USB-to-CAN V2 embedded is designed without a housing, with or without a slot board and adapted USB cable for installation into a computer.
Additional options include galvanically isolated CAN interfaces, bulk variants, and support for ISO 11898-3 low-speed CAN and LIN.

				
Compact D-SUB 9	**Compact RJ45**	**Professional**	**Automotive**	**Embedded**

LIN (AUTOMOTIVE VARIANT)

LIN communications are supported in either LIN master or LIN slave mode. As LIN slave, the interface responds automatically to master requests it receives. The response data is updated through the PC API using a buffer. In master mode, the master calls are processed by the PC application. Incoming LIN messages are forwarded to the application with a timestamp, master request, response, and status information.

COMPARISON OF THE DIFFERENT USB-CAN INTERFACES

HMS offers under the Ixxat brand different USB interfaces for CAN. Besides a one or two channel version and the support of CAN FD and LIN, also an embedded variant for implementation into customer devices is offered. An overview and comparison of the available USB interfaces can be found on the following page:

Comparison of the Ixxat USB-CAN interfaces

HIGH PERFORMANCE

By using powerful hardware and connecting over USB 2.0 Hi-Speed (480 MBit/sec), the USB-to-CAN V2 interfaces achieve very high data throughput with minimum latency and low power consumption. This allows them to provide the reliable, loss-free transmission and receipt of messages in CAN networks at high transmission rates and bus load. The messages are also timestamped and can be filtered and buffered directly in the USB-to-CAN V2.

Due to its extremely interesting price and compact size, the USB-to-CAN V2 interface is ideal for use in series products and in combination with the canAnalyser for development, service, and maintenance tasks.
Its newly developed, rugged housing permits easy customer-specific adaptation (custom design / brand labeling).

TECHNICAL SPECIFICATIONS

PC bus interface	USB 2.0, Hi-Speed
Microcontroller	32 bit
CAN controller	Internal; CAN 2.0 A/B
CAN baudrates	10 kBit/s ... 1 Mbit/s
CAN high-speed transceiver	TI SN65HVD251D
CAN low-speed transceiver (1)	TJA1055T
LIN transceiver (1)	TJA1020
LIN protocol (1)	V1.3 and V2.0
LIN baudrate (1)	max. 20 kBaud
Galvanic isolation	1000 VDC for 1 sec 500 VAC for 1 min.
Power supply	5 V, max. 500 mA via USB port
Temperature range	-20°C ... 70°C
Fieldbus connection	according to CiA 303-1
Certification	CE, EN 55022:2010, EN61000-6-1:2007

(1) only available in USB-to-CAN V2 automotive

CONTENTS OF DELIVERY

- USB-to-CAN V2 interface in the compact, embedded, professional, or automotive variant
- 2 x RJ45 to Sub-D9 adapter cable (only USB-to-CAN V2 professional/automotive)
- Manual
- CAN driver VCI for Windows XP, Windows 7, Windows 8, Windows 10
- Simple "canAnalyser Mini" CAN bus monitor

Order numbers / variants

Variants / Features	CAN HS ports	CAN LS ports	LIN ports	Fieldbus galv. isolated	D-SUB 9	RJ45	Order number

compact	1			X	X		1.01.0281.12001
	1			X		X	1.01.0281.12002
	1				X		1.01.0281.11001
embedded (1)	1			X	X		1.01.0282.12001
professional	2			X		X (incl. D-SUB 9 adapter cable)	1.01.0283.22002
automotive	2 (2)	1	1 (3)	X		X (incl. D-SUB 9 adapter cable)	1.01.0283.22042

(1) PC installation via slot board and internal USB cable
(2) One channel via software between ISO11898-2 and ISO11898-3 switchable
(3) LIN master / slave mode via software switchable