

## 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 adapter – 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 adapter 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 adapters 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

<b>PC bus interface</b>	USB 2.0, Hi-Speed
<b>Microcontroller</b>	32 bit
<b>CAN controller</b>	Internal; CAN 2.0 A/B
<b>CAN baudrates</b>	10 kBit/s ... 1 Mbit/s
<b>CAN high-speed transceiver</b>	TI SN65HVD251D
<b>CAN low-speed transceiver (1)</b>	TJA1055T
<b>LIN transceiver (1)</b>	TJA1020
<b>LIN protocol (1)</b>	V1.3 and V2.0
<b>LIN baudrate (1)</b>	max. 20 kBaud
<b>Galvanic isolation</b>	1000 VDC for 1 sec 500 VAC for 1 min.
<b>Power supply</b>	5 V, max. 300 mA via USB port
<b>Temperature range</b>	-20°C ... 70°C
<b>Fieldbus connection</b>	according to CiA 303-1
<b>Certification</b>	CE, FCC

(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)
- Internal USB cable with 5 pin female connector (ZHR-5P to TU5005HNO-1\*5P) to install the card (only USB-to-CAN V2 embedded)
- Manual
- CAN driver VCI for Windows XP, Windows 7, Windows 8, Windows 10, Windows 11
- Simple "canAnalyser Mini" CAN bus monitor

File	Version	Size	Read online
------	---------	------	-------------

→ Product Family Datasheet [PDF]

## Order numbers / variants



Variants / Features	CAN HS ports	CAN LS ports	LIN ports	Fieldbus galv. isolated	D-SUB 9	RJ45	Order number
<b>compact</b>	1			X	X		1.01.0281.12001
	1			X		X	1.01.0281.12002
	1				X		1.01.0281.11001
<b>embedded</b> <sup>(1)</sup>	1			X	X		1.01.0282.12001
<b>professional</b>	2			X		X (incl. D-SUB 9 adapter cable)	1.01.0283.22002
<b>automotive</b>	2 <sup>(2)</sup>	1	1 <sup>(3)</sup>	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

## Accessories

Product image	Type	Order number
	<b>Sub-D9 Connector with CAN Termination</b>	1.04.0075.03000
	<b>CAN cable</b>	1.04.0076.00180



**Y CAN cable**

1.04.0076.00001

More accessories and detailed information...

---

Copyright © 2020 HMS Industrial Networks - All rights reserved.