DATASHEET

USB-to-CAN V2 Starter Kit



The Ixxat USB-to-CAN V2 Starter Kit is a ready-to-go solution for testing CAN applications, hardware devices, or becoming familiar with third-party applications.

The set includes the USB-to-CAN V2 professional interface with two CAN channels to easily establish a connection between a computer and up to two CAN networks. Complemented by two RJ45 to D-Sub 9 adapter cables, a D-Sub 9 ribbon cable with four connectors, two termination resistors, and a D-Sub 9 gender changer, it ensures a seamless setup right out of the box.

A comprehensive driver package and the canAnalyser mini software for detailed network analysis are available as free download, ensuring smooth installation and operation of various CAN applications.

FEATURES AND BENEFITS

- All-in-one package including:
  1 x USB-to-CAN V2 professional,
  2 x RJ45 to D-Sub 9 CAN adapter cable,
  1 x ribbon cable (20 cm) with 4 x D-Sub 9 connectors,
  2 x CAN termination resistor,
  1 x D-Sub 9 gender changer
- Plug-and-play toolkit for a quick and easy connection of CAN networks to a PC
- 2 x high-speed CAN connection up to 1 Mbit/s with 2 x RJ45 sockets
- Native USB 2.0 hi-speed (480 Mbit/s), compatible with USB 1.1 and USB 3.x
- Galvanic isolation
- Common driver interface for easy exchange of the PC interface type
- Powerful programming interface for Windows (VCI) as well as for Linux (socketCAN or ECI), QNX and VxWorks (ECI)
- User-friendly quick start guide for a straightforward installation

Please note: Technical data on this datasheet only represents the USB-to-CAN V2 professional (order no. 1.01.0283.22002). For detailed information on other components of the starter kit, please refer to the corresponding accessories.

ORDER NUMBER	1.03.0283.00001
CAN high-speed channels	2
CAN high-speed interface	2 x RJ45 socket (incl. 2 x D-Sub 9 adapter with CiA standard pinning according to CiA 303-1)

ORDER NUMBER	1.03.0283.00001
CAN high-speed bit rates	10 kbit/s to 1 Mbit/s
CAN controller	Internal; CAN 2.0 A/B
CAN high-speed transceiver	SN65HVD251D
Galvanic isolation	1000 V DC for 1 sec., 500 V AC for 1 min.
Time stamp resolution	150-250 µs
USB interface	USB 2.0 hi-speed (480 Mbit/s), compatible with USB 1.1 and USB 3.x
USB connector	Type-A connector
Microcontroller	32 Bit
RAM	192 kByte
Flash	512 kByte
Power supply	+5 V DC/300 mA (via USB port)
Power consumption	48 mA-max. 300 mA
Weight	Approx. 100 g
Operating temperature	-20 °C to +70 °C
Storage temperature	-40 °C to +85 °C
Protection class	IP40
Relative humidity	10 to 95 %, non-condensing
Certification	CE, FCC, UKCA
Housing material	ABS plastic
LED	3 x LEDs for CAN 1, CAN 2 and USB communication
Operating systems	Windows 11, Windows 10 (32/64), Windows 8 (32/64), Windows 7 (32/64), Linux

ACCESSORIES	ORDER NUMBER
CAN cable 2.0 m (D-Sub plug to socket)	1.04.0076.00180
CAN adapter cable 0.2 m (RJ45 to D-Sub 9)	1.04.0074.01000
Termination adapter for CAN/CAN FD (D-Sub plug to socket)	1.04.0075.03000

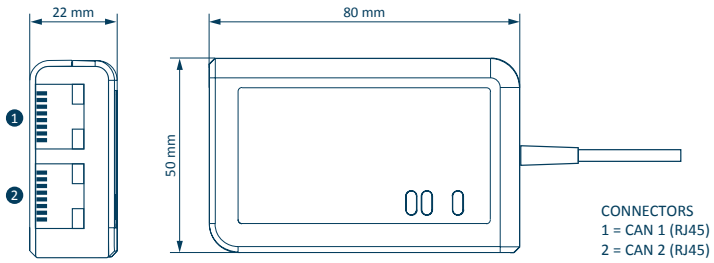
PIN ALLOCATION

CAN CONNECTOR RJ45 ❶ ❷



Pin no.	Signal
1	CAN-High
2	CAN-Low
3, 7	CAN-GND

TECHNICAL DRAWING



USB-to-CAN V2 professional

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SOFTWARE SUPPORT

Drivers and programming interfaces

Comprehensive and powerful driver and software packages for the USB-to-CAN V2 series are available for free at ixxat.com/support. The driver packages can be downloaded for Windows (VCI - Virtual Communication Interface) and Linux (ECI), and are available on request for various real-time operating systems (INtime, RTX, Vxworks, QNX).

Using the Ixxat driver packages, customers can easily switch between the different PC interfaces offered by HMS. This would allow them to use USB, PCIe, Ethernet or other PC connections without changes to their application. The drivers support all protocols available on the interface with one API, so customers can easily access CAN, CAN-FD and LIN simultaneously and get the data with a common time stamp.

Softwaretools

The software tool canAnalyser3 Mini is included in the VCI V4 download package and enables the first analysis steps and monitoring in CAN networks. Further information about the tools as well as Demo/Trial versions are available on the Ixxat webpage.