DATASHEET

USB-to-CAN/FD Standard



The Ixxat USB-to-CAN/FD Standard with galvanic isolation, offers a straightforward and economical solution for connecting a computer to a CAN/CAN FD bus network.
It is a very reliable tool for CAN FD applications e.g. in the field of test, development, maintenance or control applications.

Galvanic isolation reliably enhances the protection of the device against damage to electronics caused by voltage peaks.

FEATURES AND BENEFITS

- Combines CAN and CAN FD in one device
- Cost-effective and extremely versatile
- High-precision time-stamp accuracy
- High data throughput combined with low latency
- USB 2.0 hi-speed (480 Mbit/s), compatible with USB 3.x
- Galvanic isolation
- CAN FD connection up to 8000 kbit/s via D-Sub 9 connector
- 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)

ORDER NUMBER	1.01.0381.12001
CAN/CAN FD channels	1
CAN high-speed interface	1 x D-Sub 9, CiA standard pinning according to CiA 303-1
CAN high-speed bit rates	10 kbit/s to 1000 kbit/s
CAN FD bit rates	up to 1000 kbit/s arbitration rate with up to 8000 kbit/s data rate
CAN bus termination resistors	-
CAN controller	ISO 11898-2:2015 CAN and CAN FD
CAN high-speed transceiver	TCAN1044 or compatible
Galvanic isolation	1 kV DC for 1 min.
USB interface	USB 2.0 hi-speed (480 Mbit/s), compatible with USB 3.x
USB connector	Type-C device connector; cable with Type-C and Type A with locking screws
Microcontroller	32 bit, ARM, 160 MHz
Power supply	+5 V DC/300 mA (via USB port)
Dimensions	76,3 x 56,4 x 21 mm
Weight	88 g

ORDER NUMBER	1.01.0381.12001
Operating temperature	-40 °C to +70 °C
Storage temperature	-40 °C to +85 °C
Protection class	IP40
Relative humidity	10 % to 95 %, non-condensing
Certification	CE, FCC
Housing material	PS ABS plastic
LED	2x LEDs for CAN and USB communication
Operating systems	Windows 11, Windows 10 (32/64), Linux, QNX and VxWorks

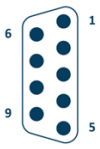
CERTIFICATES

ACCESSORIES

ACCESSORIES	ORDER NUMBER
Termination adapter for CAN/CAN FD (D-Sub plug to socket)	1.04.0075.03000
CAN cable 2.0 m (D-Sub plug to socket)	1.04.0076.00180
CAN Y cable 0.22 m	1.04.0076.00001
CAN Y cable 2.1 m	1.04.0076.00002

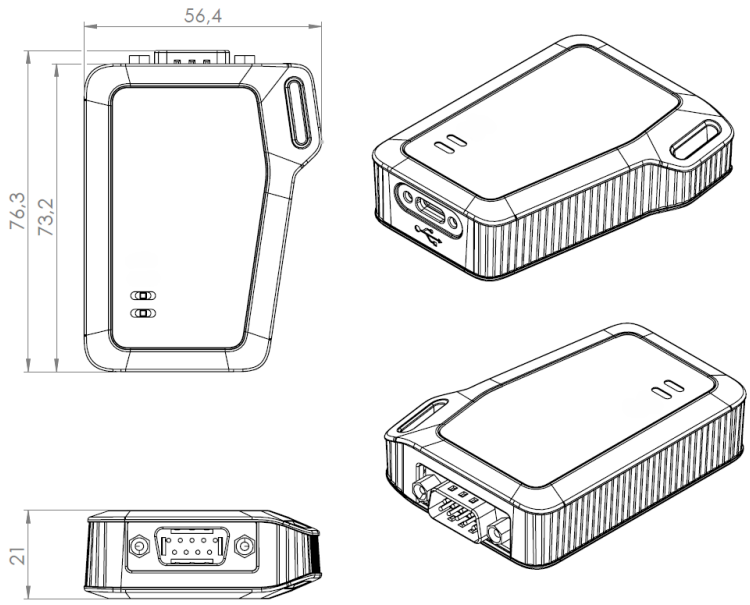
PIN ALLOCATION

CAN Connector



Pin	Signal
7	CAN high
2	CAN low
3	CAN GND

TECHNICAL DRAWING



SOFTWARE SUPPORT

Drivers and programming interfaces

Comprehensive and powerful driver and software packages for the USB-to-CAN/FD series are available for free at hms-networks.com/support/general-downloads. 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 Ixxat PC interfaces offered by HMS Networks. 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.