

## U100



The Kvaser U100 is a robust, galvanically-reinforced single-channel CAN/CAN FD to USB interface. Signal and power isolated, the Kvaser U100 offers enhanced electrical protection, a vibration, shock and drop-proof housing and high-quality cabling that establishes a new reference in CAN interface design.

With an intelligent LED that display bus loads and error frames, an industry-leading IP67 rating and an innovative connector system, the U100 has numerous stand-out features. Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet, this suits rugged and higher voltage applications in marine, industrial, construction, heavy-duty, agriculture, and automotive, including electric vehicle markets. This device has a Type-A USB connector; a Type-C USB connector is also available.

- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Powered through the USB connector.
- Supports bit rates from 10 Kbit/sec up to 1 Mbit/sec.
- Lightweight, glass fibre reinforced polyamide housing, overmolded with TPE.
- IP67 rated.
- DB-9 connector (other connectors available).
- Intuitive LED UI.
- Reinforced galvanic isolation, design validated with 5000 VAC rms applied for 60 s.
- Industrial grade temperature range, -40 °C to +85 °C.
- 20 000 msg/s, each timestamped with a resolution of 100 µs.
- Support for SocketCAN.
- Compatible with J1939, CANopen, NMEA 2000R and DeviceNet.
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.

## U100-X1



The Kvaser U100-X1 is a robust, galvanically-reinforced single-channel CAN/CAN FD to USB interface with a 9-pin J1939-13 Type II CAN connector.

Signal and power isolated, the Kvaser U100 offers enhanced electrical protection, a vibration, shock and drop-proof housing and high-quality cabling that meets the needs of CAN system developers through to service technicians.

With an intelligent LED that displays bus loads and error frames, an industry-leading IP67 rating and an innovative connector system, the U100 has numerous stand-out features. Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet, this suits rugged and higher voltage applications in marine, industrial, construction, heavy-duty, agriculture and automotive, including electric vehicle markets.

The Kvaser U100 is also available with 9-pin D-SUB, M12 or OBD-II CAN connectors.

- USB CAN interface.
- Powered through the USB connector.
- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Lightweight robust housing made of glass fibre reinforced polyamide overmolded with TPE.
- Intuitive LED UI.
- Reinforced Galvanic Isolation. (Tested according EN 60335-1:2012 paragraph 13, 5000VAC rms applied for 60 seconds)
- Industrial grade temperature range, -40 °C to +85 °C.
- 20 000 msg/s, each timestamped with a resolution of 100 µs.
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.
- Support for SocketCAN.
- Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet.
- IP67 rated housing.

## U100-X2



The Kvaser U100-X2 is a robust, galvanically-reinforced single-channel CAN/CAN FD to USB interface with a 5-pole M12 connector.

Signal and power isolated, the Kvaser U100 offers enhanced electrical protection, a vibration, shock and drop-proof housing and high-quality cabling that meets the needs of CAN system developers through to service technicians.

With an intelligent LED that displays bus loads and error frames, an industry-leading IP67 rating and an innovative connector system, the U100 has numerous stand-out features. Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet, this suits rugged and higher voltage applications in marine, industrial, construction, heavy-duty, agriculture and automotive, including electric vehicle markets.

The Kvaser U100 is also available with 9-pin D-SUB, J1939-13 Type II or OBD-II CAN connectors.

- USB CAN interface.
- Powered through the USB connector.
- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Lightweight robust housing made of glass fibre reinforced polyamide overmolded with TPE.
- Intuitive LED UI.
- Reinforced Galvanic Isolation. (Tested according EN 60335-1:2012 paragraph 13, 5000VAC rms applied for 60 seconds)
- Industrial grade temperature range,  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .
- 20 000 msg/s, each timestamped with a resolution of 100  $\mu\text{s}$ .
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.
- Support for SocketCAN.
- Fully compatible with J1939, CANopen, NMEA 2000 and DeviceNet.
- IP67 rated housing.

## U100-X3



The Kvaser U100-X3 is a robust, galvanically-reinforced single-channel CAN/CAN FD to USB interface with a 16-pin OBDII plug.

Signal and power isolated, the Kvaser U100 offers enhanced electrical protection, a vibration, shock and drop-proof housing and high-quality cabling that meets the needs of CAN system developers through to service technicians.

With an intelligent LED that displays bus loads and error frames, an industry-leading IP67 rating and an innovative connector system, the U100 has numerous stand-out features. Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet, this suits rugged and higher voltage applications in marine, industrial, construction, heavy-duty, agriculture and automotive, including electric vehicle markets.

The Kvaser U100 is also available with 9-pin D-SUB, J1939-13 Type II or M12 CAN connectors.

- USB CAN interface.
- Powered through the USB connector.
- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Lightweight robust housing made of glass fibre reinforced polyamide overmolded with TPE.
- Intuitive LED UI.
- Reinforced Galvanic Isolation. (Tested according EN 60335-1:2012 paragraph 13, 5000VAC rms applied for 60 seconds)
- Industrial grade temperature range, -40 °C to +85 °C.
- 20 000 msg/s, each timestamped with a resolution of 100 µs.
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.
- Support for SocketCAN.
- Fully compatible with J1939, CANopen, NMEA 2000 and DeviceNet.
- IP67 rated housing.

## U100P



The Kvaser U100P is the Precision version of Kvaser's U100 range of CAN to USB interfaces. The Kvaser U100P delivers advanced features for engineers working in system development and difficult troubleshooting situations. Get more precise timestamping, synced time measurements across multiple devices, and listen to the CANbus in silent mode.

The Kvaser U100P is also available with J1939, M12 or OBD-II CAN connectors.

- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Supports silent mode for analysis tools – listen to the bus without interfering.
- Reinforced galvanic isolation, design validated with 5000 VAC rms applied for 60 s.
- 20 000 msg/s, timestamped with a resolution of 1  $\mu$ s.
- Kvaser MagiSync™ – automatic time synchronization.
- Industrial grade temperature range, -40 oC to +85 oC.
- Powered through the USB connector.
- Supports bit rates from 10 Kbit/sec up to 1 Mbit/sec.
- Lightweight, glass fibre reinforced polyamide housing, overmolded with TPE.
- IP67 rated.
- DB-9 connector (other connectors available).
- Intuitive LED UI.
- Support for SocketCAN.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet.
- Fully compatible with applications written for other Kvaser CAN hardware

## U100P-X1



The Kvaser U100P-X1 is a robust, single-channel CAN/CAN FD to USB interface with reinforced galvanic isolation that squarely addresses the needs of the evolving automotive development market. Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet, this is the first in a new range of interfaces that is also suited to rugged applications in marine, industrial, heavy duty vehicle and heavy industries.

The Kvaser U100P is also available with 9-pin D-SUB, M12 or OBD-II CAN connectors.

- USB CAN interface.
- Powered through the USB connector.
- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Supports silent mode for analysis tools – listen to the bus without interfering.
- Lightweight robust housing made of glass fibre reinforced polyamide overmolded with TPE.
- Intuitive LED UI.
- Reinforced galvanic isolation, design validated with 5000 VAC rms applied for 60 s.
- Industrial grade temperature range,  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .
- 20 000 msg/s, each timestamped with a resolution of 1  $\mu\text{s}$ .
- Kvaser MagiSync – automatic time synchronization.
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.
- Support for SocketCAN.
- Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet.
- IP67 rated housing.



## U100P-X2



The Kvaser U100P-X2 is a robust, single-channel CAN/CAN FD to USB interface with reinforced galvanic isolation that squarely addresses the needs of the evolving automotive development market. Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet, this is the first in a new range of interfaces that is also suited to rugged applications in marine, industrial, heavy duty vehicle and heavy industries.

The Kvaser U100P is also available with 9-pin D-SUB, J1939 or OBD-II CAN connectors.

- USB CAN interface.
- Powered through the USB connector.
- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Supports silent mode for analysis tools – listen to the bus without interfering.
- Lightweight robust housing made of glass fibre reinforced polyamide overmolded with TPE.
- Intuitive LED UI.
- Reinforced galvanic isolation, design validated with 5000 VAC rms applied for 60 s.
- Industrial grade temperature range,  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .
- 20 000 msg/s, each timestamped with a resolution of 1  $\mu\text{s}$ .
- Kvaser MagiSync – automatic time synchronization (see Section 3.3, Kvaser MagiSync, on Page 8 for more details).
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.
- Support for SocketCAN.
- Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet.
- IP67 rated housing.

## U100P-X3



The Kvaser U100P-X3 is a robust, single-channel CAN/CAN FD to USB interface with reinforced galvanic isolation that squarely addresses the needs of the evolving automotive development market. Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet, this is the first in a new range of interfaces that is also suited to rugged applications in marine, industrial, heavy duty vehicle and heavy industries.

The Kvaser U100P is also available with 9-pin D-SUB, J1939 or M12 CAN connectors.

- USB CAN interface.
- Powered through the USB connector.
- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Supports silent mode for analysis tools – listen to the bus without interfering.
- Lightweight robust housing made of glass fibre reinforced polyamide overmolded with TPE.
- Intuitive LED UI.
- Reinforced galvanic isolation, design validated with 5000 VAC rms applied for 60 s.
- Industrial grade temperature range, –40 °C to +85 °C.
- 20 000 msg/s, each timestamped with a resolution of 1 µs.
- Kvaser MagiSync – automatic time synchronization.
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.
- Support for SocketCAN.
- Fully compatible with J1939, CANopen, NMEA 2000® and DeviceNet.
- IP67 rated housing.



## U100-C



The latest laptops and PCs come with USB-C slots only, so the Kvaser U100-C (01340-7) has been added to Kvaser's U100 range of robust, single-channel CAN/CAN FD to USB interfaces. This interface is based on the standard Kvaser U100 with DB-9 connector, but replaces the standard USB type "A" connector with the smaller USB-C format. As with other devices in the range, this is powered via the USB bus.

Robust, galvanically-reinforced and signal and power isolated, the Kvaser U100 range offers enhanced electrical protection, a vibration, shock and drop-proof housing and high-quality cabling that establishes a new reference in CAN interface design.

Other variants of the U100 range pair a standard USB type "A" connector with a 9-pin D-SUB, M12 or OBD-II CAN connector. A Precision version is also available - the Kvaser U100P - with a standard USB type "A" connector to a 9-pin D-SUB.

- Supports CAN FD, up to 8 Mbit/s (with correct physical layer implementation).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- Supports silent mode for analysis tools – listen to the bus without interfering.
- Reinforced Galvanic Isolation. (Tested according EN 60335-1:2012 paragraph 13, 5000VAC rms applied for 60 seconds)
- 20 000 msg/s, timestamped with a resolution of 100 µs.
- Industrial grade temperature range, –40 oC to +85 oC.
- USB-C connector.
- Powered through the Type-C USB connector (a Type-A USB connector is also available).
- DB-9 connector (other connectors available).
- Supports bit rates from 10 Kbit/sec up to 1 Mbit/sec.
- Lightweight, glass fibre reinforced polyamide housing, overmolded with TPE.
- IP67 rated.
- Intuitive LED UI.
- Support for SocketCAN.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet.
- Fully compatible with applications written for other Kvaser CAN hardware with Kvaser CANlib.