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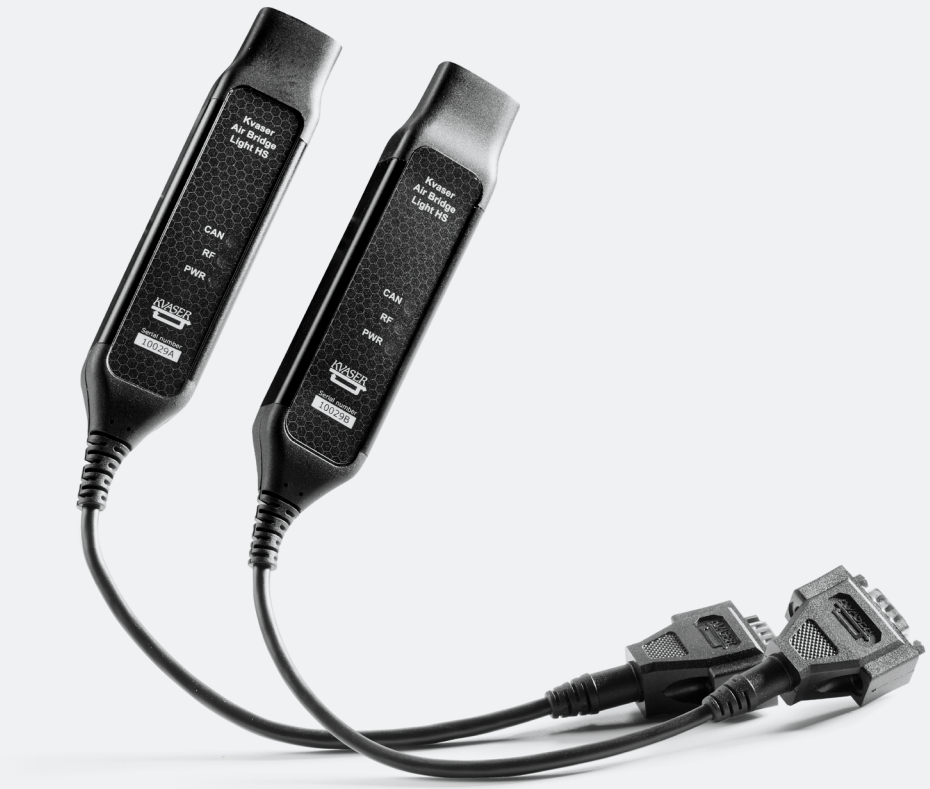
Advancing connectivity

# Kvaser Air Bridge Light HS (CE)

Learn more about this product


## Your Gateway to Efficient Connectivity

Kvaser Air Bridge Light HS (CE) is a configuration-free wireless CAN bridge that achieves predictable latency, without sacrificing stability or range. Comprising a preconfigured pair of plug-and-play units to exchange raw CAN data, the Kvaser Air Bridge Light HS (CE) is designed for environments or situations that make wired connection unsuitable or challenging e.g., between two moving parts that are connected by CAN.

This version (00808-3) is approved for the European Union while Kvaser Air Bridge Light HS (FCC) (01008-6) complies with US certification. Both share the same functionality but have different radio transmission schemes due to regulatory differences.

**Warranty**
2-Year warranty. See our general conditions and policies for details.

**Support**
Free support for all products by contacting support@kvaser.com

**EAN**
73-30130-00808-3

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# Kvaser Air Bridge Light HS (CE)

## Major Features

- IP65-rated aluminium housing, suitable for fixed outdoor installations.
- 2.4 GHz proprietary protocol.
- Internal antenna design, antenna output power max 18 dBm.
- Automatic baud rate detection (125K, 250K, 500K, 1M).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- High-Speed CAN connection (compliant with ISO 11898-2), up to 1 Mbit/s.
- Plug and play, driverfree, and configuration-free.
- Power supplied through the CAN bus interface.
- Extended operating temperature range from -40 °C to +70 °C.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet. Higher layer protocol translation handled by the user's application. For software support please see our Technical Associates products and our Software Download page (www.kvaser.com).

## Support

Documentation, Kvaser CANlib SDK and drivers can be downloaded for free at www.kvaser.com/downloads.

Kvaser CANlib SDK is a free resource that includes everything you need to develop software for the Kvaser CAN interfaces. Includes full documentation and many program samples, written in C, C++, C#, Delphi, Visual Basic, Python and t programming language.

Kvaser CAN hardware is built around the same common software API. Applications developed using one device type will run without modification on other device types.

## Technical Data

| | |
|---|---|
| **Antenna Output Power** | Max 18 dBm approx. |
| **Antenna Type** | Internal Antenna |
| **CAN Bit Rate** | Autobaud at 1 Mbit/s, 500 kbit/s, 250 kbit/s and 125 kbit/s |
| **CAN Channels** | 1 |
| **CAN Transceivers** | TJA1051T |
| **Casing Material** | PC-ABS |
| **Connector** | DSUB 9 Plug |
| **Current Consumption** | Approx. 2W |
| **Dimensions** | 30 x 151 x 17 mm |
| **Frequency Range** | 2.405 GHz to 2.477 GHz |
| **IP Class** | IP65 |
| **Operating Temperature Range** | -40 to +70 °C |
| **Packet Latency** | Approx. 4.8 ms |
| **Weight** | 185 g (93 g per piece) |
| **Wireless Communication** | 2.4 GHz Gaussian Frequency-Shist Keying (GFSK) with Frequency Hopping Spread Spectrum (FHSS) modulation |

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# Kvaser Air Bridge Light HS (FCC)

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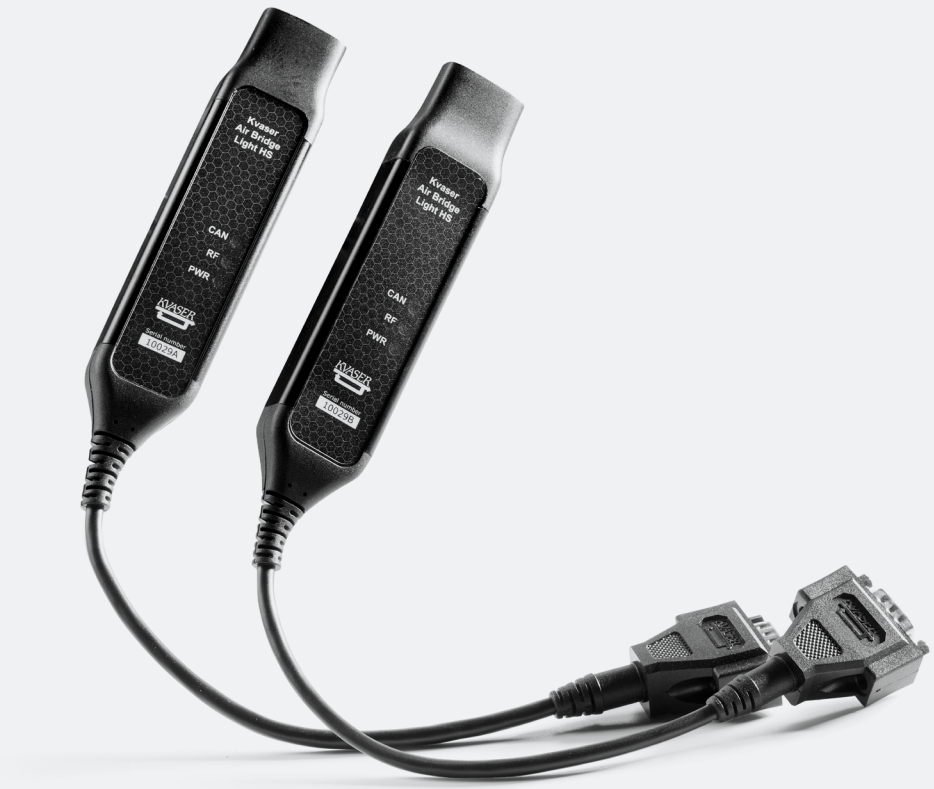


## Your Gateway to Efficient Connectivity

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This version (01008-6) complies with US certification while Kvaser Air Bridge Light HS (00808-3) is approved for the European Union. Both share the same functionality but have different radio transmission schemes due to regulatory differences.

**Warranty**
2-Year warranty. See our general conditions and policies for details.

**Support**
Free support for all products by contacting support@kvaser.com

**EAN**
73-30130-01008-6

Ref. No. 98303-8 v. 2.0

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# Kvaser Air Bridge Light HS (FCC)

## Major Features

- IP65-rated aluminium housing, suitable for fixed outdoor installations.
- 2.4 GHz proprietary protocol.
- Internal antenna design, antenna output power max 18 dBm.
- Automatic baud rate detection (125K, 250K, 500K, 1M).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- High-Speed CAN connection (compliant with ISO 11898-2), up to 1 Mbit/s.
- Plug and play, driverfree, and configuration-free.
- Power supplied through the CAN bus interface.
- Extended operating temperature range from -40 °C to +70 °C.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet. Higher layer protocol translation handled by the user's application. For software support please see our Technical Associates products and our Software Download page (www.kvaser.com).

## Support

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Kvaser CAN hardware is built around the same common software API. Applications developed using one device type will run without modification on other device types.

## Technical Data

| | |
|---|---|
| **Antenna Output Power** | Max 18 dBm approx. |
| **Antenna Type** | Internal Antenna |
| **CAN Bit Rate** | Autobaud at 1 Mbit/s, 500 kbit/s, 250 kbit/s and 125 kbit/s |
| **CAN Channels** | 1 |
| **CAN Transceivers** | TJA1051T |
| **Casing Material** | Aluminum |
| **Connector** | DSUB 9 Plug |
| **Current Consumption** | Approx. 2W |
| **Dimensions** | 30 x 151 x 17 mm |
| **IP Class** | IP65 |
| **Operating Temperature Range** | -40 to +70 °C |
| **Packet Latency** | Approx. 4.8 ms |
| **Weight** | 187 g (94 g per piece) |
| **Wireless Communication** | 2.4 GHz Gaussian Frequency-Shist Keying (GFSK) with Frequency Hopping Spread Spectrum (FHSS) modulation |

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# Kvaser Air Bridge Light HS M12 (CE)

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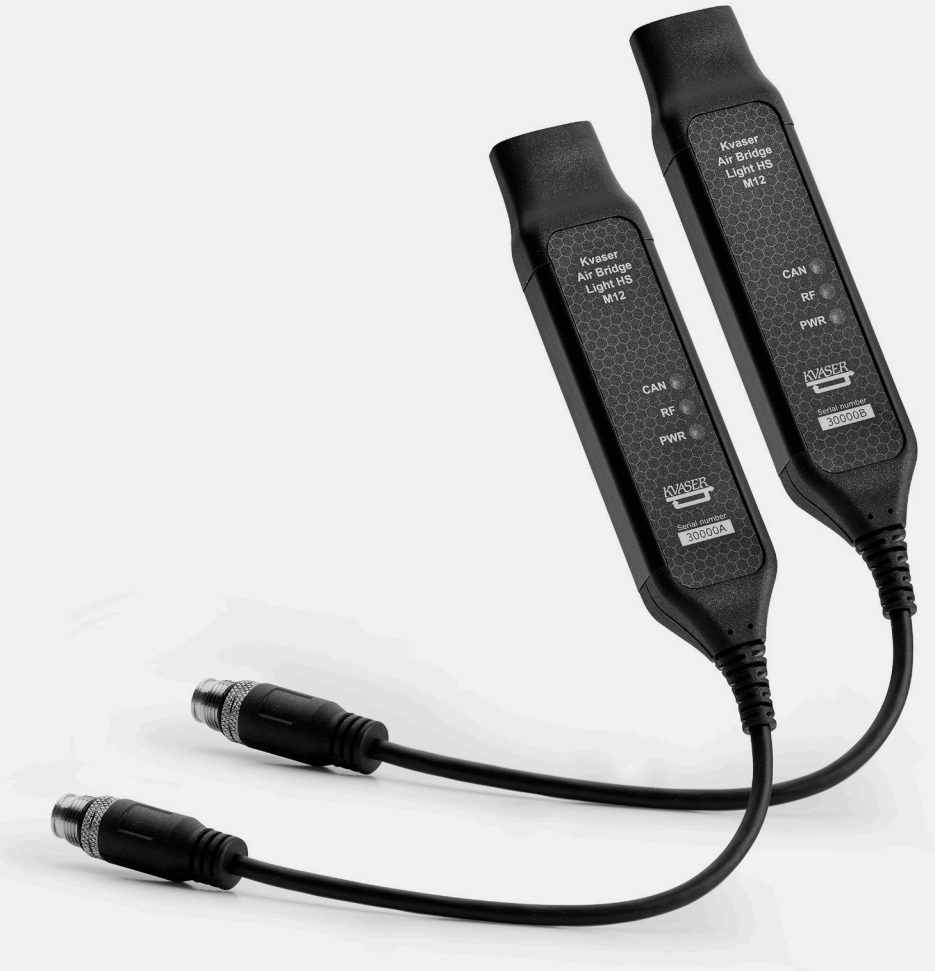


## Your Gateway to Efficient Connectivity

The Kvaser Air Bridge Light HS M12 (CE) is a configuration-free wireless CAN bridge that uses a dust and water-tight M12 connector to connect CAN networks.

Comprising a preconfigured pair of plug-and-play units, with integrated antennas and rugged housings, the Kvaser Air Bridge Light HS M12 (CE) ensure the rapid exchange of raw CAN data in situations that make wired connection unsuitable or challenging, such as CAN cabling that experiences high mechanical stress in harsh environments.

This version (01141-0) Kvaser Air Bridge Light HS M12 (CE) is approved for the European Union, while (01148-9) Kvaser Air Bridge Light HS M12 (FCC) complies with US certification.

**Warranty**
2-Year warranty. See our general conditions and policies for details.

**Support**
Free support for all products by contacting support@kvaser.com

**EAN**
73-30130-01141-0

Ref. No. 98304-5 v. 2.0

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# Kvaser Air Bridge Light HS M12 (CE)

## Major Features

- IP67-rated M12 connector on each unit; dust- and water-resistant.
- IP65-rated aluminium housing, suitable for fixed outdoor installations.
- 2.4 GHz proprietary protocol.
- Internal antenna design, antenna output power max 18 dBm.
- Automatic baud rate detection (125K, 250K, 500K, 1M).
- Supports both 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers.
- High-Speed CAN connection (compliant with ISO 11898-2), up to 1 Mbit/s.
- Plug and play, driverfree, and configuration-free.
- Power supplied through the CAN bus interface.
- Extended operating temperature range from -40 °C to +70 °C.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet. Higher layer protocol translation handled by the user's application. For software support please see our Technical Associates products and our Software Download page (www.kvaser.com).

## Support

Documentation, Kvaser CANlib SDK and drivers can be downloaded for free at www.kvaser.com/downloads.

Kvaser CANlib SDK is a free resource that includes everything you need to develop software for the Kvaser CAN interfaces. Includes full documentation and many program samples, written in C, C++, C#, Delphi, Visual Basic, Python and t programming language.

Kvaser CAN hardware is built around the same common software API. Applications developed using one device type will run without modification on other device types.

## Technical Data

| | |
|---|---|
| **Antenna Output Power** | Max 18 dBm approx. |
| **Antenna Type** | Internal Antenna |
| **CAN Bit Rate** | Autobaud at 1 Mbit/s, 500 kbit/s, 250 kbit/s and 125 kbit/s |
| **CAN Channels** | 1 |
| **CAN Transceivers** | TJA1051T |
| **Casing Material** | Aluminum |
| **Connector** | M12 5-pin |
| **Current Consumption** | Approx. 2W |
| **Dimensions** | 30 x 151 x 17 mm |
| **Frequency Range** | 2.405 GHz to 2.477 GHz |
| **IP Class** | IP65 |
| **Operating Temperature Range** | -40 to +70 °C |
| **Packet Latency** | Approx. 4.8 ms |
| **Weight** | 168 g (84 g per piece) |
| **Wireless Communication** | 2.4 GHz Gaussian Frequency-Shist Keying (GFSK) with Frequency Hopping Spread Spectrum (FHSS) modulation |

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Ref. No. 98304-5 v. 2.0

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# Kvaser Air Bridge Light HS M12 (FCC)

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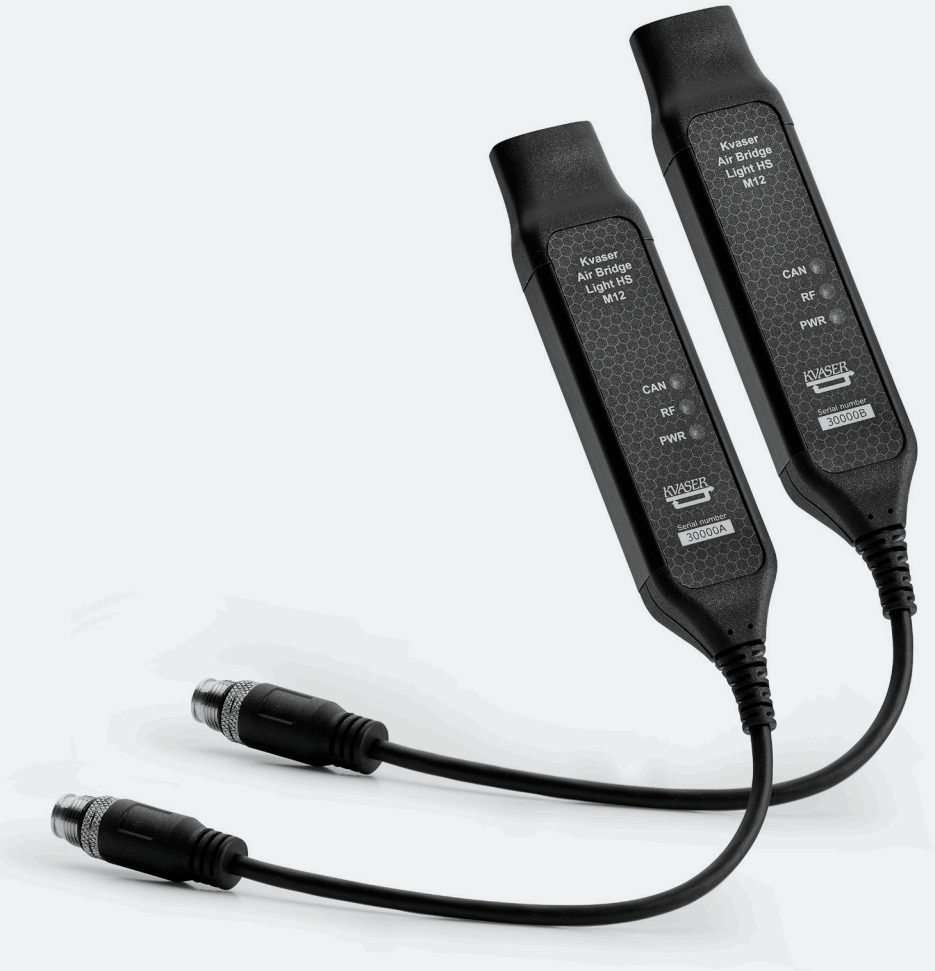


## Your Gateway to Efficient Connectivity

The Kvaser Air Bridge Light HS M12 is a configuration-free wireless CAN bridge that uses a dust and water-tight M12 connector to connect CAN networks.

Comprising a preconfigured pair of plug-and-play units, with integrated antennas and rugged housings, the Kvaser Air Bridge Light HS M12 ensure the rapid exchange of raw CAN data in situations that make wired connection unsuitable or challenging, such as CAN cabling that experiences high mechanical stress in harsh environments.

This variant (01148-9) Kvaser Air Bridge Light HS M12 complies with US certification version only, while (01141-0) Kvaser Air Bridge Light HS M12 (CE) is approved for the European Union and the US. Both share the same functionality but have different radio transmission schemes due to regulatory differences.

**Warranty**
2-Year warranty. See our general conditions and policies for details.

**Support**
Free support for all products by contacting support@kvaser.com

**EAN**
73-30130-01148-9

Ref. No. 98305-2 v. 2.0

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# Kvaser Air Bridge Light HS M12 (FCC)

## Major Features

- Forms a wireless CAN bridge between a pair of two Kvaser Air Bridge Light HS devices.
- High-speed CAN connection (compliant with ISO 11898-2), up to 1 Mbit/s.
- Plug and play, driver-free, and configuration-free.
- Proprietary wireless protocol for high robustness, very low latency and to enable link establishment and connection in an instant.
- Internal antenna design with polarization diversity.
- Automatic bit rate detection.[1]
- Bit rate conversion between CAN bus systems with different bit rates.
- IP65-rated, dust- and water-resistant housing.
- IP67-rated M12 connector for cabling with extra dust- and water-tightness, suitable for outdoor installation.
- Extended operating temperature range.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet. Higher layer protocol translation handled by the user's application. For software support please see our Technical Associates products and our Software Download page (www.kvaser.com).

## Support

Documentation, Kvaser CANlib SDK and drivers can be downloaded for free at www.kvaser.com/downloads.

Kvaser CANlib SDK is a free resource that includes everything you need to develop software for the Kvaser CAN interfaces. Includes full documentation and many program samples, written in C, C++, C#, Delphi, Visual Basic, Python and t programming language.

Kvaser CAN hardware is built around the same common software API. Applications developed using one device type will run without modification on other device types.

[1] Configurable to a fix CAN bit rate (1Mbit/s, 500 kbit/s, 250 kbit/s or 125 kbit/s). Refer to Kvaser Air Bridge Light HS User's Guide for more information.

## Technical Data

| | |
|---|---|
| **Antenna Output Power** | Max 18 dBm |
| **CAN Bit Rate** | 1 Mbit/s, 500 kbit/s, 250 kbit/s and 125 kbit/s |
| **CAN Channels** | 1 |
| **CAN Transceivers** | TJA1051T (compliant with ISO 11898-2) |
| **Certifications** | FCC, RoHS |
| **Connector** | M12 5-pin, A-code |
| **Dimensions** | 30 x 151 x 17 mm |
| **Frequency Range** | 2400 - 2483.5 MHz |
| **Housing Material** | Aluminum, PA6 |
| **Message Latency** | Typically 2.5 - 7.5 ms |
| **Message Rate, CAN 2.0A (11-bit ID)** [1] | 2 x 2100 messages/s |
| **Message Rate, CAN 2.0B (29-bit ID)** [1] | 2 x 1680 messages/s |
| **Message Transfer Capacity** [2] | Corresponding to 100% bus load for both directions at 250 kbit/s bit rate |
| **Power Consumption** | Typically 2 W |
| **Power Supply** | 9 - 36 VDC |
| **Temperature Range** | -40 to +70 °C |
| **Wireless Communication** | Frequency Hopping Spread Spectrum (FHSS) with Gaussion Frequency-Shift Keying (GFSK) |
| **Weight** | 84 g (per device) |

[1] Maximum message rate in both directions for eight byte payload. Refer to "Kvaser Air Bridge System Integration Guide" for more information.

[2] Recommended maximum load is 80%. Refer to "Kvaser Air Bridge System Integration Guide" for more information.

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Ref. No. 98305-2 v. 2.0

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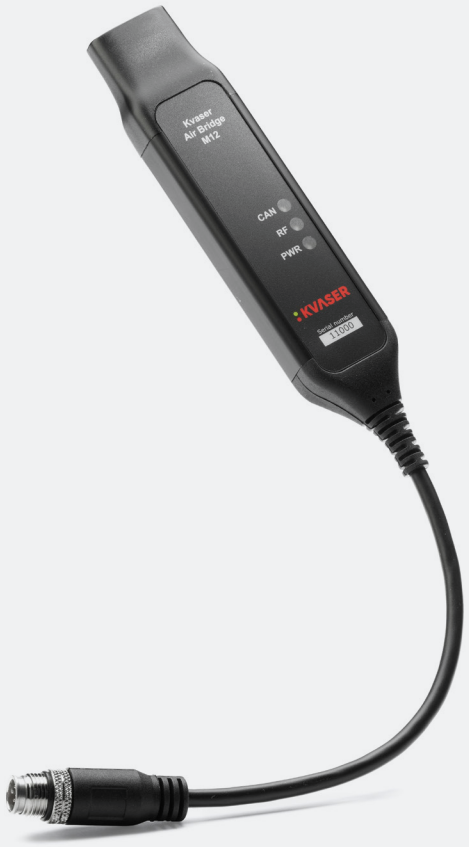
# Kvaser Air Bridge M12

Learn more about this product


## Your Gateway to Efficient Connectivity

Kvaser Air Bridge M12 is a small, yet advanced, wireless CAN bridge that can be used to form a CAN system bridge, when paired with any other Kvaser Air Bridge M12 device and create connectivity between two or more CAN networks. This radio solution can be used to connect CAN based control systems and test equipment in scenarios and situations where it is desirable to replace cabling and related parts.

The Kvaser Air Bridge M12 is designed for ease of use, while retaining a certain flexibility for the user by means of configuration; choose between 'one to one', or 'one to any'. The Kvaser Air Bridge Utility CLI enables a user to commission Kvaser Air Bridge M12 devices in a simple and straight-forward fashion.

**Warranty**
2-Year warranty. See our general conditions and policies for details.

**Support**
Free support for all products by contacting support@kvaser.com

**EAN**
73-30130-01494-7

Ref. No. 98301-4 v. 2.0

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# Kvaser Air Bridge M12

## Major Features

- Forms a wireless CAN bridge between two Kvaser Air Bridge devices.
- Can be paired with any other Kvaser Air Bridge M12 device to form a point-to-point radio link.
- High-speed CAN connection (compliant with ISO 11898-2), up to 1 Mbit/s.
- Driver-free and only limited configuration required.
- Provides configuration flexibility to support a wide variety of application requirements.
- Pairing, configuration and link status via management protocol over the CAN bus.
- Active discovery feature that detects available Kvaser Air Bridge M12 devices for pairing.
- Proprietary wireless protocol for high robustness, very low latency and to enable link establishment and connection in an instant.
- Internal antenna design with polarization diversity.
- Automatic bit rate detection or user configured.
- Bit rate conversion between CAN bus systems with different bit rates.
- IP65-rated, dust- and water-resistant housing.
- IP67-rated M12 connector for cabling with extra dust- and water-tightness, suitable for outdoor installation.
- Extended operating temperature range.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet. Higher layer protocol translation handled by the user's application. For software support please see our Technical Associates products and our Software Download page (www.kvaser.com).

## Support

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Kvaser CAN hardware is built around the same common software API. Applications developed using one device type will run without modification on other device types.

## Technical Data

| | |
|---|---|
| **Antenna Output Power** | Max 18 dBm |
| **CAN Bit Rate** | 1 Mbit/s, 500 kbit/s, 250 kbit/s and 125 kbit/s |
| **CAN Channels** | 1 |
| **CAN Transceivers** | TJA1051T (compliant with ISO 11898-2) |
| **Certifications** | CE, FCC, RoHS |
| **Connector** | M12 5-pin, A-code |
| **Dimensions** | 30 x 151 x 17 mm |
| **Frequency Range** | 2400 - 2483.5 MHz |
| **Housing Material** | Aluminum, PA6 |
| **Message Latency** | Typically 2.5 - 7.5 ms |
| **Message Rate, CAN 2.0A (11-bit ID)[1]** | 2 x 2100 messages/s |
| **Message Rate, CAN 2.0B (29-bit ID)[1]** | 2 x 1680 messages/s |
| **Message Transfer Capacity[2]** | Corresponding to 100% bus load for both directions at 250 kbit/s bit rate |
| **Power Consumption** | Typically 2 W |
| **Power Supply** | 9 - 36 VDC |
| **Temperature Range** | -40 to +70 °C |
| **Wireless Communication** | Frequency Hopping Spread Spectrum (FHSS) with Gaussion Frequency-Shift Keying (GFSK) |
| **Weight** | 84 g |

1 Maximum message rate in both directions for eight byte payload. Refer to "Kvaser Air Bridge System Integration Guide" for more information.

2 Recommended maximum load is 80%. Refer to "Kvaser Air Bridge System Integration Guide" for more information.

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Ref. No. 98301-4 v. 2.0